IN THE MATTER OF

CALIFORNIA MILK PRODUCERS ADVISORY BOARD, ET AL.

FINAL ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF SECS. 5 AND 12 OF THE FEDERAL TRADE COMMISSION ACT

Docket 8988. Complaint, Aug. 1, 1974 — Final Order, Sept. 21, 1979

This order dismisses a complaint issued against a Modesto, Calif. milk producers association and its New York City advertising agency, on grounds that it was unreasonable to condemn advertising claiming that "Every body needs milk" because of the small fraction of allergic people.

Appearances

For the Commission: *Gerald E. Wright, Jerome M. Steiner, Peter C. Lagarias* and *Michael C. Weisberg.*

For the respondents: *William A. Wineberg, Jr., Thomas Paine* and *Ross H. Schulz, Broad, Khourie & Schulz,* San Francisco, Calif. and *Harvey B. Sindle, Katz, Leavy, Rosenzweig & Sindle,* New York City.

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act, and by virtue of the authority vested in it by said Act, the Federal Trade Commission, having reason to believe that the California Milk Producers Advisory Board, an unincorporated association, and Cunningham & Walsh, Inc., a corporation, hereinafter referred to as "respondents", have violated the provisions of said Act, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, hereby issues its complaint stating its charges in that respect as follows:

PARAGRAPH 1. For purposes of this complaint, the following definitions shall apply:

1. "Advisory Board" means respondent California Milk Producers Advisory Board.

2. "Marketing Act" means The California Marketing Act of 1937, as amended, Agricultural Code of the State of California, Para. 58,601, *et seq.*

3. "Marketing Order" means the Marketing Order for Research, Education, and Promotion of Market Milk and Dairy Products In California, promulgated by Jerry W. Fielder, Director of Agriculture, October 9, 1969, as amended.

PAR. 2. Respondent Advisory Board is an unincorporated association organized, existing and doing business under and by virtue of the Marketing Order, under the authority of the Marketing Act, with its principal office and place of business located at 1213-13th St., Modesto, California. [2]

PAR. 3. Respondent Cunningham & Walsh, Inc. is a corporation organized, existing and doing business under and by virtue of the laws of the State of New York, with its principal office and place of business located at 260 Madison Ave., New York, New York.

PAR. 4. Respondent Advisory Board is now and has been engaged in the development, implementation, and administration of advertising programs relating to milk. Said programs are operated for the pecuniary benefit of producers and producer-handlers of milk located in the State of California, and inure to the pecuniary benefit of producers and producer-handlers of milk located in the State of California, and in other states. The members of the Advisory Board are producers and producer-handlers of milk located in the State of California. Said producers and producer-handlers are persons, partnerships or corporations operating for profit or for the profit of their members.

Said advertising programs include, and have included, but are not and have not been limited to the dissemination, publication, and distribution of advertisements, including but not limited to the advertising referred to herein, to promote the sale of milk, which comes within the classification of "food", as said term is defined in the Federal Trade Commission Act.

PAR. 5. Respondent Cunningham & Walsh, Inc. is now, and for some time last past has been, an advertising agency for the Advisory Board and is now preparing and placing, and has prepared and placed for publication, and has caused the dissemination of advertising material, including but not limited to the advertising referred to herein, to promote the sale of milk, which comes within the classification of "food", as said term is defined in the Federal Trade Commission Act.

PAR. 6. In the course and conduct of their said activities and/or businesses, respondents have disseminated, recommended and/or caused the dissemination of certain advertisements concerning milk by the United States mail and by various means in commerce, as "commerce" is defined in the Federal Trade Commission Act, including, but not limited to, advertisements inserted in magazines and other periodicals of general circulation, and by means of television and radio broadcasts transmitted by television and radio stations located in the State of California, having sufficient power to

carry such broadcasts across state lines, for the purpose of inducing and which were likely to induce, directly or indirectly, the purchase of said products; and have disseminated, recommended and/or caused the dissemination of, advertisements concerning said products by various means, including but not limited to the aforesaid media, for the purpose of inducing and which were likely to induce, directly or indirectly, the purchase of said products in commerce as "commerce" is defined in the Federal Trade Commission Act. [3]

PAR. 7. Typical of the statements and representations in said advertisements, disseminated as aforesaid, but not all inclusive thereof, are a number of television and radio commercials featuring endorsements of famous celebrities, and print media advertisements. These commercials and promotional materials contain messages concerning the uses, purposes, utility, characteristics and effects of milk. As representative of the aforementioned commercials, several such television, radio and print media advertisements are set forth in printed form in subparagraph A–E below:

A. One such television commercial, using a close-up of Mark Spitz, a well-known Olympic swimmer, states the following:

VIDEO:	AUDIO:
1. OPEN ON CU OF MARK SPITZ.	*MARK* **No, I don't get embarressed ordering milk. As a matter of fact I order it all the time. I think ordering milk whether you're 10 years old ot 100. . .I think uh, it's something that your body really needs. An uh I — I wouldn't get embarrassed at all.**
2. DISS TO TITLE: MILK HAS SOMETHING FOR EVERYBODY	*ANNCR:* Milk has something for every body.
3. DISS TO TITLE: Even Mark Spitz's.	Even Mark Spitz's
4. DISS TO CU OF MARK SPITZ. ADD SUPER: CALIFORNIA-OREGON-WASHINGTON DAIRYMEN.	*ANNCR:* **You know, I say "two glasses please". (LAUGH) I wouldn't try to hide it and say, "I'll have a small" (LAUGHS)**

B. Another such radio commercial, using Vida Blue, a well-known baseball player, states the following:

AUDIO:

VIDA: **I do coach a Little League team, and it's in this same pasture that I used to play ball in. We'd come out after school**

and we play a little ball, and we have fun. And naturally I'll take 'em to my house afterwards, and I'll treat 'em to, uh, cookies and milk. So I try to influence kids about growing up and just, [4] uh, knowing the difference between right and wrong. And, uh. . .I've never told my Little League team that I drink two and a half gallons of milk, but I've just told them that I drink a lot of milk, and that it's good for you, and it's good for your body. And I'm just waiting for the day that I can see one of my little kids become a great professional athlete.

AUDIO

VO: Every body needs milk. Even Vida Blue's.

VIDA: . . .Try to stress to the kids, living a clean life and keeping your body in top physical condition and just growing up. . .an American. A *true* American.

C. Another such television commercial, using a closeup of Ray Bolger, a well-known dancer, states the following:

VIDEO:	AUDIO:
1. OPEN ON CU OF RAY BOLGER.	*RAY:* The big important thing in our business—the movement of the body—is to keep your calcium balance. The extremities, for instance; the hands. We use our hands in dancing, see? We must have a facility of having freedom of the hands. The hands are a beautiful thing when used properly. I mean when they're, ah. . .but they shouldn't look like your playing Dracula, you know. And so therefore you want them sort of free and easy and you can't have arthritic little joints. As a matter of fact, a person who does strenuous exercise. . .milk is, is. . .it's terribly important that you have your proper intake of milk. I suppose it would be obvious for me to say that I drink milk. But it's more than obvious; it's an absolute necessity for me.

2. DISS TO TITLE.	*ANNCR:* Every body needs milk.
3. DISS TO TITLE.	Even Ray Bolger's.
4. DISS TO CU OF BOLGER.	*RAY:* I never saw a ballet dancer that didn't drink milk. [5]

D. Another such radio commercial, using Dear Abby, a famous newspaper columnist states:

AUDIO:

ABBY: I'm only in daily newspapers, and I'm published around the world. . .Ireland, Buenos Aires. Fifty-Five million daily. . .That's a lot of people, really. People tell me things they wouldn't tell anybody else. Kids tell me things they wouldn't tell their parents; hubands tell me things they wouldn't tell their wives; vice versa. And it, I imagine it's a great outlet. . .people being able to. . .well, make a wailing wall out of me. When you know that fifty-five million eyes are on you every day, you are very careful of what you. . .what you say. And, uh, I have to keep my energy up. I have a lot of vitality; I always have. Thank heavens, I have very good health; I'm very seldom sick; I very seldom have a cold. . .and I think I probably can attribute that to the fact that I have been a milk drinker all my life. And I still am.

VO: Every body need milk.

Even Dear Abby's.

ABBY: I'm a really good ad for dairy products, because. . .I love cheese, whipped cream, milk. . .Milk goes with everything.

E. One such print media advertisement is the following: [6]


"Whether you're 10 years old or 100,
I think it's something your body needs.
In fact, I say: 'Two glasses, please!'"
Milk has something for every body. Even Mark Spitz
CUNNINGHAM & WALSH

[7] PAR. 8. Through the use of said advertisements and others similar thereto not specifically set out herein, disseminated as aforesaid, respondents have represented and are now representing, directly and by implication that:

A. The consumption of milk is essential, necessary and needed by all individuals irrespective of the state of their health.
B. The consumption of milk is beneficial for all individuals.
C. The consumption of milk is beneficial in large or unlimited quantities.
D. The consumption of milk will prevent or will lessen the probabilities of contracting colds or arthritis.

PAR. 9. In truth and in fact:

A. The consumption of milk is not essential, necessary or needed by individuals with health problems such as certain allergies and symptomatic lactose intolerance.
B. The consumption of milk is detrimental to individuals with health problems such as certain allergies, and symptomatic lactose intolerance.
C. The consumption of milk in large or unlimited quantities is detrimental to individuals with health problems such as certain allergies, and symptomatic lactose intolerance.
D. The consumption of milk will not prevent and will not lessen the probabilities of contracting colds or arthritis.

Therefore, the statements and representations in said advertisements referred to in Paragraph Seven, and others similar thereto not specifically referred to herein, were and are misleading in material respects and constituted, and now constitute, "false advertisements," as that term is defined in the Federal Trade Commission Act, and the statements, representations, and failure to disclose material facts set forth in Paragraphs Seven and Eight were, and are, unfair, false, misleading and deceptive.

PAR. 10. The use by respondents of the unfair, false, misleading and deceptive statements, representations, acts and practices, and their failure to disclose material facts, as aforesaid, and the dissemination of the aforesaid "false advertisements" has had, and now has, the capacity and tendency to mislead members of the consuming public into the purchase of substantial quantities of milk. [8]

PAR. 11. The aforesaid acts and practices of respondents including the dissemination of "false advertisements," as herein alleged, were

and are all to the prejudice and injury of the public and constituted, and now constitute, unfair or deceptive acts and practices in commerce in violation of Sections 5 and 12 of the Federal Trade Commission Act.

INITIAL DECISION BY DANIEL H. HANSCOM, ADMINISTRATIVE LAW JUDGE

JULY 31, 1979

I

STATEMENT OF THE CASE

Allegations of Complaint

The complaint charged the California Milk Producers Advisory Board, an unincorporated association formed pursuant to the California Marketing Act of 1937, as amended, and a Marketing Order issued thereunder by the Director of Food and Agriculture of the State of California on October 9, 1969, and its advertising agency, Cunningham & Walsh, Inc., with the dissemination of misleading representations and false advertisements in the promotion of milk. More specifically, the complaint charged the Milk Advisory Board and Cunningham & Walsh with having disseminated advertisements over television, radio, in print media, by billboard, and otherwise, which represented that:

A. The consumption of milk is essential, necessary and needed by all individuals irrespective of the state of their health.

B. The consumption of milk is beneficial for all individuals.

C. The consumption of milk is beneficial in large or unlimited quantities.

D. The consumption of milk will prevent or lessen the probabilities of contracting colds or arthritis.

According to the complaint these alleged representations were misleading and false because "in truth and in fact":

A. The consumption of milk is not essential, necessary or needed by individuals with health problems such as certain allergies and symptomatic lactose intolerance.

B. The consumption of milk is detrimental to individuals with health problems such as certain allergies, and symptomatic lactose intolerance. [2]

C. The consumption of milk in large or unlimited quantities is

detrimental to individuals with health problems such as certain allergies, and symptomatic lactose intolerance.

D. The consumption of milk will not prevent and will not lessen the probabilities of contracting colds or arthritis.

The complaint charged that the advertisements disseminated by the Milk Advisory Board and Cunningham & Walsh constituted "false advertisements" as defined in the Federal Trade Commission Act, and further that the use by the Board and Cunningham & Walsh of "unfair, false, misleading and deceptive statements" in the promotion of milk, and the "failure to disclose material facts," had the tendency and capacity "to mislead members of the consuming public into the purchase of substantial quantities of milk."

Procedural History

Injunction Against Commission

The complaint issued August 1, 1974, and was served on respondents August 14. A prehearing conference was scheduled to be held September 23 to discuss the issues, to determine the state of preparations of each side for trial, to organize the case generally, and to set a target date for hearings on the merits. On September 11, the State of California and its Director of Food and Agriculture, the California Milk Producers Advisory Board and Cunningham & Walsh, obtained a temporary restraining order from the U.S. District Court for the Northern District of California enjoining the Commission from further proceedings in this case. The prehearing conference scheduled by the law judge had to be cancelled. A preliminary injunction issued on September 23, CCH 1974–2 Trade Cases ¶ 75,328 (N.D. Cal. 1974), and nine months later on June 25, 1975, after briefing and argument, the District Court issued a permanent injunction against further Commission proceedings.

The decision of the District Court to issue a permanent injunction was grounded on the determination that the California Milk Producers Advisory Board was an agency of the State of California and that the Commission had no jurisdiction to proceed "with respect to the matters complained of by the FTC in Docket No. 8988." *State of California ex rel. Christensen* v. *Federal Trade Commission,* 9 S&D 1373 (N.D. Cal. 1975). [3]

The Commission appealed. After briefing and argument the Court of Appeals for the Ninth Circuit issued a decision on March 3, 1977, which vacated the injunction. Expressing no opinion on the merits of the jurisdictional question other than to note that the question was a

"close one," the Court of Appeals concluded that the Commission "should have the opportunity to make the initial determination of its own jurisdiction" on the basis of a "full factual development" and a "solid factual record." *State of Cal. ex rel. Christensen* v. *F.T.C.,* 549 F.2d 1321 (9th Cir. 1977). The State of California, the Milk Board and Cunningham & Walsh petitioned for certiorari and the Court of Appeals stayed its mandate. The U.S. Supreme Court denied the petition for certiorari on October 3, 1977. On October 17, the mandate of the Court of Appeals was received by the District Court freeing the law judge and the Commission from the injunction.

Resumption of Commission Proceedings

On November 1, 1977, respondents were ordered to file their answers to the complaint and on November 4, 1977, an order was issued convening a pretrial conference November 30 to review the status of the case, and the ability of each side to go to trial in view of the three year interruption.

On November 17 the State of California by its Director of Food and Agriculture, represented by its Attorney General, filed a motion to intervene as a respondent in this proceeding. On November 25 the law judge denied intervention "as a respondent," but granted the State of California "permission to intervene for the limited purpose of raising, presenting, and arguing matters of fact or law on the issue of whether the California Milk Producers Advisory Board is subject to the jurisdiction of the Federal Trade Commission with respect to the advertising disseminated and challenged in the Commission's complaint."

A prehearing conference lasting most of the day was held on November 30. The possibility of eliminating by stipulation or otherwise all the issues with respect to respondents' advertising promoting the consumption of milk, except the question of jurisdiction, was explored in detail, but without success. The possibility of an agreement by both sides on the terms of an order which would issue by consent if, after trial, the jurisdictional question was resolved against respondents was raised by the law judge. [4] Notwithstanding subsequent discussion and negotiations, the parties advised the law judge on December 9, 1977, that they could not agree on the terms of such an order.

The parties being unable to agree on any basis for settlement or stipulation of the case in whole or in part, resolution of all issues on the merits by hearings became the only alternative. A timetable for pretrial procedures including discovery, and commencement of

hearings was worked out by counsel for both sides and accepted by the law judge. It provided for commencement of trial on June 5, 1978.

Hearings on the Merits

The proceeding proved to be far more complex and lengthy than the law judge had anticipated. The case-in-chief required about eight weeks of hearings which, following three weeks in June, were completed in sessions in August, September and October. The case-in-defense began November 2 and proceeded with minor interruption to completion on November 29. Complaint counsel offered two and one-half days of rebuttal, completing this on December 4th. Neither the Milk Advisory Board nor Cunningham & Walsh desired to offer surrebuttal.

Inasmuch as thousands of exhibits, many of them medical studies, were offered over the course of the lengthy trial, in many instances being rejected initially but later being received after a proper foundation had been laid, and in many other instances being received only for a limited purpose, the law judge directed counsel for both sides to prepare a joint statement relating to all exhibits. The joint statement lists all exhibits offered in evidence, each page of the transcript where a ruling on the admissibility of an exhibit was made, and the nature of the ruling. In this manner the evidentiary status of every exhibit has been made clear at a glance to counsel, to the law judge and to the Commission for review. The joint statement was filed January 30 together with a statement of rejected exhibits and a stipulation of substantive corrections to the record. On February 8 the evidentiary phase of this proceeding was ruled by the law judge to have been completed.

Proposed findings and supporting material by both sides were directed to be filed by March 16 and reply memoranda, if any, were ordered filed by April 16. Permission was later granted both sides to file their proposed findings and supporting material by Friday, March 23. The date for submission of reply memoranda was extended to May 25 on application of respondents, the law judge having concluded that filing by [5] that date would not delay the Initial Decision which in the interim would be in the process of preparation. The State of California filed its brief as intervenor on the "jurisdictional" issue March 29 and its reply brief June 11.

It was clear at the time the foregoing extensions of time were granted to counsel that the size of the record and the complexity of the issues raised by this proceeding would necessitate more time than the 90 day rule permitted for the undersigned to write the

Initial Decision. The time for this was extended by the Commission to June 29, and later to July 31.

The hearings were attended throughout by a representative from the California Attorney General's office.

The following were among the issues raised by this proceeding and pursued in depth during the evidentiary hearings: the jurisdiction of the Commission to challenge the advertising of the Milk Advisory Board, involving a detailed inquiry into the nature and operations of the Board and its relation to the California Department of Food and Agriculture and to the State of California, the advertising disseminated by the Board and Cunningham & Walsh, the representations contained in the advertising disseminated by the Board and Cunningham & Walsh, the review of that advertising by the Department of Food and Agriculture, the need for milk in the diet, lactose intolerance and milk allergies, the medical and scientific knowledge concerning lactose intolerance and allergies, the development and the state of medical and scientific knowledge when the challenged advertising was being disseminated, the review of the claims in the advertising by scientific experts, the significance of lactose intolerance and milk allergy and the bearing thereof on milk consumption by persons with lactose intolerance or milk allergy, the dietary advice concerning milk consumption disseminated over the years by federal and state governments, and questions of relief. These were not the exclusive issues, but are stated only to give an indication of the scope of matters covered in the hearings.

The record numbers 12,919 transcript pages and 14 volumes of exhibits. Thirty-five witnesses testified, including fourteen experts from medical, scientific and other fields, many of whom were of national and international reputation.

The proceeding is now before the undersigned for decision based upon the allegations of the complaint, the answer, the evidence and the proposed findings of fact, conclusions and legal authority filed by the parties and the State of [6] California. All proposed findings of fact, conclusions and arguments not specifically found or accepted herein, are rejected. The undersigned law judge, having considered the entire record, and all the contentions of respondents, complaint counsel and the State of California on the jurisdictional issue, makes the following findings and conclusions, and issues the order at the end hereof dismissing the complaint.

II

FINDINGS OF FACT

Respondents

1. The California Milk Producers Advisory Board (hereinafter sometimes referred to as the "Milk Advisory Board," the "Milk Board" or the "Board") is an advisory board appointed by the Director of Food and Agriculture of the State of California. The Board, which consists of 24 dairy farmers and, more recently, one public member, was created pursuant to a "Marketing Order for Research, Education and Promotion of Market Milk and Dairy Products in California" promulgated by the state Director of Food and Agriculture on October 9, 1969, after an affirmative vote in favor thereof by California milk producers. This marketing order was issued pursuant to the California Marketing Act of 1937, as amended, (Cal. Agri. Code § 58,601, *et seq.,* CX 1135, 1146). The Advisory Board maintains an office in Modesto, California (Complaint, ¶¶ 1 and 2 and Answer, ¶¶ 1, 2 and 4).

2. Respondent Cunningham & Walsh, Inc., (hereinafter sometimes referred to as "Cunningham & Walsh," the "advertising agency," or the "agency"), is a corporation organized, existing and doing business under and by virtue of the laws of the State of New York, with its principal office and place of business located at 260 Madison Ave., New York, New York. Cunningham & Walsh maintains offices in a number of cities including San Francisco, California (Complaint, ¶ 3 and Answer, ¶ 3).

Intervenor for a Limited Purpose

3. The State of California, by order of November 25, 1977, was permitted by the law judge to intervene in this action for the limited purpose stated earlier herein. [7]

The Advertising of Respondents and the Representations Made

Background

4. During the period from 1955 to the time the California Milk Producers Advisory Board was organized in 1969, there had been steady decline in the per capita consumption of milk, both nationally and in the State of California, although gross sales of milk in California increased due to population growth of the state. By the end of the 1960's, however, overall population growth in California no longer compensated for the per capita decline in milk consump-

tion. The dairymen of California became concerned. Under the leadership of a voluntary organization, the American Dairy Association of California, the dairymen sought the issuance of a marketing order for milk which would permit mandatory assessments on all dairy farmers to create a fund for the promotion of milk to stem, if possible, the sales decline. At a hearing held by the California Department of Food and Agriculture in connection with the proposed marketing order and advisory board, the state's milk producers indicated that they wanted a campaign of strong commercial advertising (CX 1119(b)). The marketing order was approved. Pursuant to it the California Milk Producers Advisory Board came into being to conduct the promotional activities authorized by the marketing order. Upon formation of the Board an assessment of 1/2 of one percent of sales was levied on each milk producer in California. In 1971 this assessment was increased to one percent of sales.

5. With the substantial promotional funds thus generated the Milk Board hired a leading advertising agency, Cunningham & Walsh, and an advertising and promotional campaign for milk using television, radio, newspapers, magazines, billboards, and point of sale materials, was begun. The Milk Board and Cunningham & Walsh spent the following amounts for the advertising of milk after formation of the Board. [8]

Period	*Advertising Expenditure*
December 1969 to June 1970 (half-year)	$ 491,575.
July 1970 to June 1971	1,645,753.
July 1971 to December 1971	1,541,510.
January 1972 to December 1972	4,258,886.
January 1973 to December 1973	4,368,921.
January 1974 to December 1974	5,637,199.

(CX 1380, CX 1386-90).

"Essential, Necessary and Needed"

6. The advertising of the Milk Advisory Board and Cunningham & Walsh, particularly the advertising which utilized the "Every Body Needs Milk" theme, had the capacity to convey, and conveyed the representation that milk was essential, necessary and needed by all individuals for a nutritionally adequate diet and good health. There was no representation that milk was essential for life or that one would become ill if one did not drink milk. The representation conveyed to the public, however, went far beyond the message that "Milk is good for you," "healthful" or "nutritious," or "that milk is a highly recommended and desirable product for good nutrition and that it is 'good for you' " (RPF 856, 870).

7. The message "Every Body Needs Milk" was conveyed to the California populace for almost three years by hundreds, if not thousands of advertisements using all channels of communication, television, radio, billboards, newspapers, magazines, and point of sale material (CX 2425–2441). This message was not communicated in isolation, but was almost invariably, except perhaps where it was printed on the sides of milk tank trucks, part of a larger advertisement which enhanced and reinforced the representation stated in the preceding finding, in both subtle and overt ways. **[9]**

Examples

8. *"Beautiful People"* — CX 1 and 2.

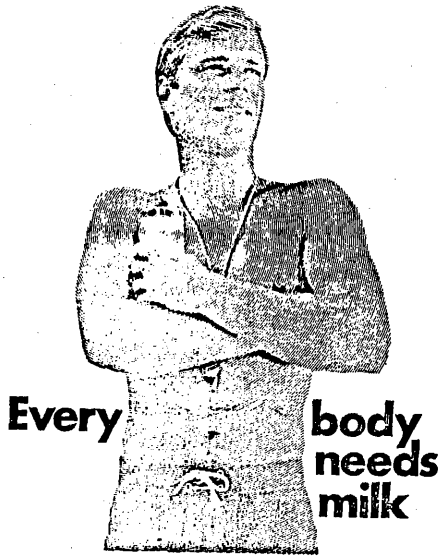
These were among the first advertisements disseminated. Both CX 1 and 2 were newspaper and billboard ads (Tr. 151–52; CX 30, 2425(a), 2426(c)). They displayed "Every Body Needs Milk" in context with two handsome young models, a young man and a young woman, both in bathing attire. In each ad the model's body is emphasized, being placed intentionally between the words "Every" and "Body" (Manley, Tr. 11435; Crandall, Tr. 4919–20). The models are visible magnificent physical specimens radiating good health, quintessentially "beautiful people." The ads strongly convey, directly and by unstated suggestion, that milk is a dietary essential for the human body, including beautiful bodies. CX 1 is reproduced herein.

9. *"Every Body Needs Milk" 1970 Billboards* — CX 31, 33, 2426(a), 2427(d), 2428(a) and (b), 2429(a).

Following dissemination of CX 1 and 2, and the billboard versions (CX 30, 2426(c)), respondents created a series of billboards which were erected throughout California in 1970 at strategic high traffic

locations (CX 2426(b) and (c), 2427(d), 2428(a) and (b), 2429(a)). Like CX 1 and 2, these featured "Every Body Needs Milk" with healthy young models participating in outdoor activities and sports (CX 31, 33, 2427(d)). Dates of dissemination and planned dissemination are shown in CX 852(a) and CX 2426(b); (Bier, Tr. 1618–21). There were "Bikini Girl" in April 1970, "Lifeguard" in May, "Karate Fighter" in June, "Bikini Girl with Kitten" in July, "Dune Buggy" in August, "Surfer" in September, "Football Player" in October, "Sky Diver" in November and "Girl on Exercise Rings" in December. Cunningham & Walsh described these in the following manner (CX 3000, p. 95; see also Bier, Tr. 1623): [10]

MILK ADVISORY BOARD



Ad No. SF-3500-A—150 lines B&W, 2 col. x 75 lines
California Newspapers—1970
CUNNINGHAM & WALSH • 500 SANSOME STREET
SAN FRANCISCO, 94111 (415) YUKON 1-7850
5-13-70—3

FEDERAL TRADE COMMISSION
Docket No. 8788 COMMISSION RESPONDENT Exhibit No. L
In the Matter of: CMPAB
Date 6/15/78 Witness _____ Reporter [illegible]

[11] The outdoor billboards were directed towards a more general audience; young and old, male and female. They were meant to tell every body that they needed milk. The boards attempted to convey that milk provides health and vitality, that it makes people *look* great and *feel* great. These billboards were put up throughout the state of California beginning in April and a new design was used every month.

Concerning the exposure of the California public to these billboards the dairymen were told by the Milk Board (CX 2427(d), 2428(b)):

Milk Advisory Board billboards, featuring a different model and activity each month, have attracted extremely high interest on the part of Californians. Following a survey on billboard effectiveness, Haug Associates, Inc., of Los Angeles, reported that the "Every Body Needs Milk" billboards, particularly the Bikini board, are among the top 10% of all boards they have measured.

* * * * * * *

The new November milk board is now up featuring the Sky Diver. For December, it will be the Girl on Rings, and for January, the Dune Buggy. All feature the theme "Every Body Needs Milk." The 30-sheet billboards, all located in high traffic areas, are now being rotated on a regular basis so as to reach increasing amounts of people. Nearly all markets in California are covered by the billboard postings, with hundreds of boards installed throughout the state.

In addition to the regular 30-sheet billboards, spectacular or painted boards are featured in Los Angeles, San Diego and San Francisco-Oakland. Locations are changed each month, and all are on heavily travelled freeways or major streets in the cities. The painted boards alone, exclusive of the regular boards, reach an average of from 14 to 15 million viewers each month with the milk message.

[12] According to the Milk Advisory Board, the billboards were "seen," "understood," and the "Every Body Needs Milk" message was "believable and easy to absorb" (CX 2427(d)).

10. *"Cow Jokes"* — radio commercials, CX 78-83.

These were among the early commercials disseminated by the Milk Board and Cunningham & Walsh. They were broadcast on radio stations throughout California from March to July 1970 (Bier, Tr. 1672; Manley, Tr. 11439; RX 1843). These ads captured the attention of the listening audience with a "cow joke," and then conveyed the message through a female voice "Twinkle Star" singing at two or more points in the commercial "Every body needs milk." Just before the end of the commercial "Twinkle Star" states "And now the Milk Advisory Board who reminds you everybody needs milk * * *." The Milk Board's publication circulated to California milk producers described these commercials (CX 2426(b)):

Humcrous, catchy, ear-appealing. . .these are the radio spot announcements for milk, also carrying the "Every body Needs Milk" theme, now on 38 California radio stations. Using the Cow Joke approach, the milk announcements have been so successful radio

station operators report they are the most provocative commercials they have ever presented. Audience listenership is rated extremely high.

11. *"Milkmaid," "Milkmom," "Milkman,"* - TV ads CX 140–41, 143–45.

These were disseminated commencing in October 1970 and continued until February 1971 (RX 1843). In "Milkmaid" a disheveled teenage girl sips milk and is transformed in appearance into a sophisticated young lady as she tells the TV audience "everybody needs milk!" "to keep growing," "and feel good" "and looook good" . . . "Cause milk's got calcium and vitamins and many things I can't even remember—and who stops needing them." In "Milkmom" a care-worn "mom" holds a glass of milk in her hand and tells the TV audience "I mean, absolutely everybody needs milk." As she sips she also is transformed in appearance into a "high style" matron. In "Milkman" a crochety 70-year old sips milk and becomes a dapper, elderly gentleman with a walking stick as he advises that if milk can help "a body when its young" it can go right on helping "to keep it young," [13] and "at whatever your age — to feel good — and look good — everybody needs milk." At the end of all the commercials, the TV screen displayed "Every body needs milk" followed by "Milk Advisory Board." As many references as possible to "Every Body Needs Milk" were worked into the commercials, and at the end that slogan "Every Body Needs Milk" was kept on the screen longer than would have been the normal practice (Manley, Tr. 11449). These TV ads were estimated to reach 92% of Southern California households 13 times or more a month and 92% of Northern California households over 4 times monthly (CX 2427(b)). Underneath the nonsense there was a serious message conveying that milk was a dietary essential for all ages for good health.

12. *"Strobe" Billboards* — a slide RX 1837; CX 32, 2429(a), 2432(b), 2433(c) and 2434(c).

These were a second series of billboard advertisements created by Cunningham & Walsh and the Milk Board, and published January through December 1971, using "stroboscopic" photographs of activities such as bicycling, skating, drumming, fencing, a girl on a swing, man doing pushups, and track and field activities (Manley, Tr. 11445; Bier, Tr. 1733). Some of these ads were published as newspaper ads (Bier, Tr. 1623–24). Again, they all featured "Every Body Needs Milk" in dominating type, and the sales message conveyed was that everyone, no matter their activity, needed milk for adequate nutrition and good health.

13. *"Calcium Ads"* — newspapers CX 3, 4 and 5; magazines CX 20, 21 and 22.

These ads, published between October 1971 and April 1972 (RX 1843(c)), conveyed that calcium was an essential for the body to stop bleeding when cut, for the heart to beat, and for sight. The text stated "you need calcium throughout your life to keep your bones strong and healthy. Too little over a long period of time is one cause of *osteoporosis* — weak and brittle bones — which is all too common among the elderly" (CX 3 and 5). The ads then point out that the National Research Council recommended 800 milligrams of calcium a day "about as much as you get in a normal diet *if it includes two glasses of milk.*" The text then asks "Can you get enough calcium from other foods" and answers "Not easily" because "two glasses of milk give you as much calcium as each of the following" (CX 3):

> 20 eggs, 14 sweet potatoes,
> 20 cups of oatmeal, 1 1/2 pints
> of ice cream, 16 cups of cabbage,
> 2 1/2 cups of cottage cheese.

[14] The ad concludes "When it comes to calcium, there's no real substitute for milk. Every body needs calcium. Every body needs milk." The representation that milk was "essential, necessary and needed" for nutritionally adequate diet and good health was clear. The calcium ads, however, did not make the representation that milk drinking was essential for life in the sense that one had to drink milk to obtain the calcium necessary to continue living (CPF 74). The ads stated that *calcium* was essential to stop bleeding, for the heart to beat, and for sight, not *milk.* The ads did not convey in their overall "net impression" that if one did not drink milk one would not stop bleeding if cut, one's heart would stop beating, or one would go blind.

14. *1972 Billboards* — "Every Body Needs Milk," CX 175–79, 2436(b), 2437(a), 2438(a), 2439(b), 2440(b), and CX 2441(b).

All of these ads emphasized in strong print "Every Body needs Milk" in context with visibly healthy, handsome, young people of impressive physical appeal. The January and February 1972 "Every Body Needs Milk" billboards were posted in over 700 locations statewide in California (CX 2436(b)). As in the case of the "Beautiful People" ads, CX 1 and 2, the message was unmistakable that every "body" needed milk as a dietary essential for vigor, good health and beauty.

15. *"Celebrity" ads* — Using "Every Body Needs Milk," TV, CX 100 and 100(a), 101(a) and (b), 102, 103(a), 104(c) and (d), 105(a) and (b), 106(a) and (c), 192; radio, CX 51–63, 84–88 91–93, 95; newspaper, CX 9.

At a meeting of the Advertising Committee of the Milk Board and executives of Cunningham & Walsh held May 27, 1971, the results of the Board's advertising for milk and its "past and current program" were discussed (CX 860). A new program to involve the use of celebrities was described by Cunningham & Walsh's Senior Vice-President and Senior Creative Officer. According to the minutes of this meeting the following was to be the message and method (CX 860(b)): [15]

Message? — with a quiet persuasive way, using high degree truth in advertising, give reasons why milk is needed by everybody. Break down the prejudice that milk can be dropped when a teenager.

How? — use celebrities with honest, direct testimonials. Get respected, thoughtful people to say that they believe in milk. The creative staff presented a set of four simulated commercials for radio and TV using Pat Boone.

This was the genesis and theme of the so-called celebrity campaign, which aimed to present celebrities in an informal and sincere atmosphere, and have them in unrehearsed discussion state their reasons for drinking milk (Manley, Tr. 11453; Holm, Tr. 4683–85; Bier, Tr. 1745–46). Credibility was enhanced in the initial celebrity series by announcing at the conclusion of the commercial that the celebrity's fee, or a portion thereof, was being donated to charity (see CX 100(b), 101(b), and 104(b)).

16. Once the concept of the celebrity campaign was approved, Cunningham & Walsh proceeded to sign Pat Boone, Vikki Carr, columnist Abigail Van Buren ("Dear Abby"), and Vida Blue, baseball star, all well-known personalities, as the first four "celebrities" (Manley, Tr. 11455, 11475; CX 2435(c); RX 1843(b)). The celebrity ads were not limited to TV, but also were presented on radio, in newspapers and magazines, and on billboards, the commercials being edited to suit the medium. As indicated, the commercials did not employ a prepared script delivered by the celebrities as a "sales pitch," but instead the celebrity was filmed during an interview as someone off-camera carried on a dialogue, steering the conversation into areas desirable for milk advertising purposes (Manley, Tr. 11474). The interview was then edited by splicing together various statements of the celebrity and leaving out the off-

stage interviewer's part of the dialogue (Manley, Tr. 11457–58). This technique created the appearance of spontaneity (Manley, Tr. 11457). Quotations from the TV and radio celebrity ads were later used as headlines in newspaper and billboard advertisements (CX 4241(a)).

17. The celebrity campaign began over radio in July 1971 and was expanded to TV in September 1971 using the four nationally known personalities named earlier to promote milk. "The Milk Advisor" issue of September 1971 stated (CX 2434(a)): **[16]**

> Each star is a personal believer in and user of milk, and their candid statements for milk are the backbone of each commercial. Stars in the current "Every Body Needs Milk" campaign include pitching sensation, Vida Blue, singers Pat Boone and Vikki Carr and nationally known columnist Abigail Van Buren, of "Dear Abby" fame.

18. In her TV ad "Dear Abby" told the viewing audience that she could probably attribute the fact that she had good health, was seldom sick, and seldom had a cold to milk drinking all her life. As "Dear Abby" finished informing the audience of this the screen displayed "Every body needs milk" and the announcer repeated that statement (CX 100(a) and (b)). The TV screen then displayed the message "Dear Abby's services donated to Mt. Sinai Free Bed Fund." See CX 100 for video tape.

19. Radio commercials featuring "Dear Abby" were also broadcast as part of the celebrity campaign. One of these was known as "Young Girls" (CX 86 and 87), and another as "55 Million Readers" (CX 55). In "Young Girls" Abby recited how young girls with appearance problems wanted to become attractive and that she encouraged them "to eat good, nourishing food" and to drink milk. The commercial ended with the theme "Every Body Needs Milk . . . Even Dear Abby's." In "55 Million Readers," Abby basically repeated the message in her TV commercial that she had very good health, was very seldom sick, very seldom had a cold and "probably can attribute that to the fact that I have been a milk drinker all my life," as the commercial ends with a voice announcing "Every Body Needs Milk . . . Even Dear Abby's" (CX 55).

20. Vida Blue, the baseball pitching star, after telling the TV audience that he tried to teach kids "the difference between right and wrong," states that kids should drink milk, and adults, also. The viewing audience was then told in words on the screen and by voice that "Every body needs milk . . . Even Vida Blue's" (CX 101(a) and (b)). At the conclusion, similar to the "Dear Abby" ad, the message was displayed on the screen "A portion of Vida Blue's services

donated to The Sickle Cell Disease Research Foundation . . . Milk Advisory Board."

21. In a radio commercial entitled "Little League" Vida Blue reported drinking enormous amounts of milk (CX 56(a) and CX 57): [17]

I've never told my Little League team that I drink two and a half gallons of milk, but I've just told them that I drink a lot of milk, and that it's good for you, and it's good for your body. And I'm just waiting for the day that I see one of my little kids become a great professional athlete.

In another radio commercial "Two and One Half Gallons" Vida Blue suggested that his milk drinking played a vital part in his baseball development (CX 58(a) and 59(a)):

I couldn't tell you how much milk I used to drink. Uh, I'll take a rough estimate: maybe. . .uh gallon and a half a day. That's quite a bit, but I. . .I think I deserved to have that much in my body because, uh, even when I left school and I would go home, I would go back and play ball. And I think milk played a vital part in that also. 'N still have that love for milk, that love for milk. Maybe two and a half gallons per day now.

At the end of both commercials a "voice over" announced "Every body needs milk . . . Even Vida Blue's."

22. In "Advice for Kids," Vida Blue advised (CX 84 and 85):

Only advice I can have for a kid who, uh, doesn't have a very good body is, uh, just get on the ball and drink a lot of milk and—I think it's important that you get the proper diet; you get your vegetables, your meats, your breads and, uh . . . I think last but not least you should get plenty of milk; as much as possible. And, uh, I think this will help to prepare you to become a good physical person.

If someone approaches me, I mean, like I say, I can only give my honest opinion of what I think is right. And, uh, I think kids should drink milk. Uh, well, adults also. I mean, it's good for you, and it's good to you. So my advice now is, uh, yeah, sure, drink as much as you can.

[18] This commercial ended with "Every body needs milk . . . Even Vida Blue's" as Vida announced "Those are my personal feelings about it, and I would — could only advise them on doing what I thought was right."

23. In a commercial known as "Teeth" (CX 104), Vikki Carr told the TV audience that milk was not only a great summer cooler, but "its good for you. You don't have to worry about your teeth being rotted away, you know." Again, print and voice admonished "Every body needs milk" as Ms. Carr told the audience that she didn't have a cavity in her mouth, and that "maybe loving milk had something to do with it" besides her "beans and tortillas." At the end of the ad

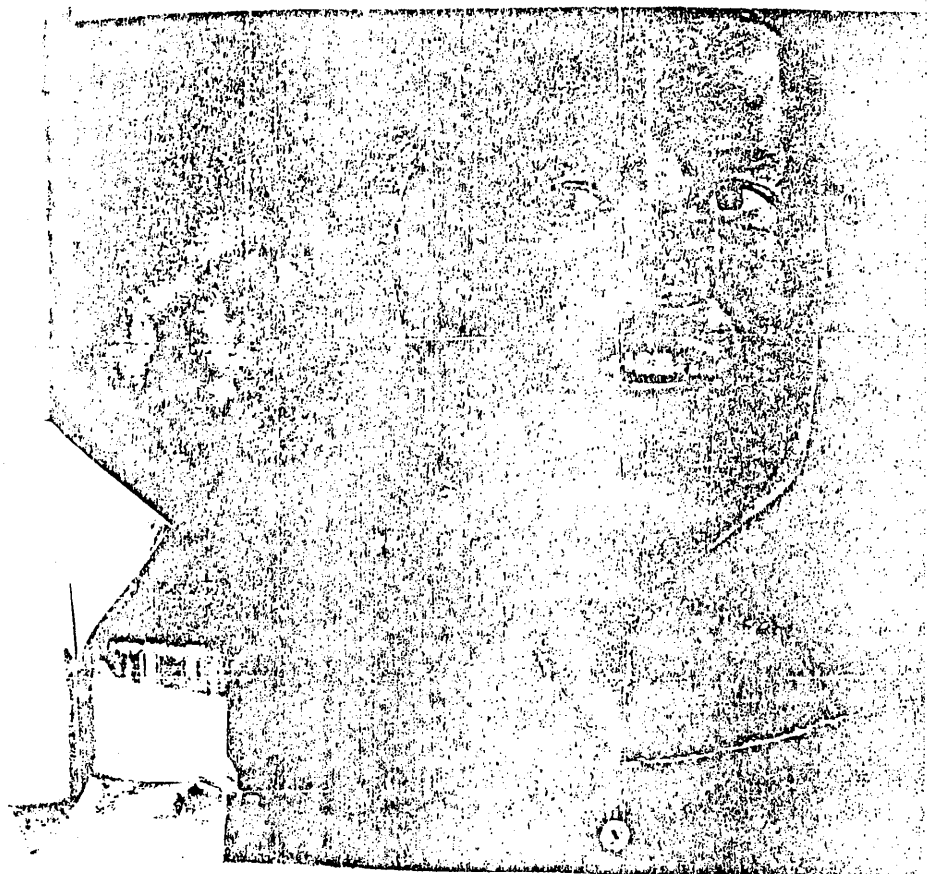
the TV screen carried the message "Miss Carr's services donated to the Vikki Carr Scholarship Fund. Milk Advisory Board."

24. Another of the celebrities featured by the Milk Board and Cunningham & Walsh was singer Pat Boone who told the radio audience in an "Every body needs milk" commercial entitled "Rosemary-the Cow" that when growing up he drank "a quart of milk per day per meal" (CX 52; Tr. 6202). This was broadcast in the latter part of 1971 (RX 1843(b)). In another "Every body needs milk" radio commercial "44.50 a week," Pat Boone told the audience that at the beginning of his career he did a TV show for a dairy and "I'd drink normally a quart of milk during the course of the program" (CX 51). In a print ad, reproduced herein, "I'm 38 now," again over the slogan "Every body needs milk," Mr. Boone suggested that milk drinking is "bound to affect the way you look" (CX 9).

25. Twenty-four "Every body needs milk" TV celebrity commercials and thirty-five "Every body needs milk" celebrity radio commercials featuring "Dear Abby," Vida Blue, Pat Boone and Vikki Carr were broadcast beginning in middle and late 1971 (RX 1843(b); Manley, Tr. 11459). All these commercials were broadcast on a rotating basis to avoid repetition and to achieve spontaniety (Manley, Tr. 11462–63). As already found, these commercials represented to the viewing and listening public that the drinking of milk was essential for all individuals for good health, good looks, and optimum physical vigor and energy.

26. In February 1972, two additional celebrities, Ray Bolger, a musical comedy star and dancer, and Phyllis Diller, comedienne, were added to the Milk Board's TV campaign (Manley, Tr. 11477; RX 1843(b) and (c)). In July 1972, Karen Valentine, a television actress, was added (CX 62(a), 63; RX 1843(b)), and in August 1972, Bill Graham, an entertainer, was included (CX 88, 91–93, 95; RX 1843(b)). [19]

"I'm 38 now. But what you eat
nd drink is bound to affect the way you look.
And I sure have drunk a lot of milk!"



...k Milk Advisory Board

-19-

Every body needs milk. Even Pat Boone's.

...Angeles Times Home Magazine, November 12, 1972

CX-9

[20] 27. In his commercial, Ray Bolger described for the TV audience the need of a dancer to have free movement of his body, particularly the extremities, noting that a dancer "can't have arthritic little joints." He then advised "it's terribly important that you have your proper intake of milk" adding "it's an absolute necessity for me." Both print and voice reinforced the theme "Every body needs milk" as Mr. Bolger concluded saying "I never saw a ballet dancer that didn't drink milk" (CX 103(a)).

28. In her commercial, Phyllis Diller advised the TV audience that she was having her teeth straightened, that if she hadn't drunk a lot of milk as a child and as an adult her "teeth would not be worth straightening," that her bones "would not be what they call young at [her] age, but they are," and that she attributed "all this elasticity and bone health to the use of milk; the consumption of large amounts of milk" (CX 102). The audience was then informed as in all these commercials, in print and by voice that "Every body needs milk . . . Even Phyllis Diller's."

29. Karen Valentine told the TV audience that dancers "tend to drink a lot of milk," that milk "builds you up, and it's good for the bones; it makes your legs strong," as the screen and announcer advised "Every body needs milk." Ms. Valentine concludes by saying "I've never had anything broken except for a fingernail . . . Really . . . I don't know if that has anything to do with drinking milk, but it sure saved a lot of doctor bills" (CX 106(c)). Again, the net impression created by the foregoing advertisements was that milk was indispensible for all individuals for good health, good bodies, good looks and optimum vigor and energy.

30. In August 1972 the Milk Board and Cunningham & Walsh decided to drop the theme "Every Body Needs Milk" in view of adverse publicity arising from the "Baltimore study" by Johns Hopkins medical personnel relating to lactase deficiency in some members of the public and the opening of the Commission's investigation in this matter (see RPF 335), and to replace it with "Milk Has Something for Every Body." All new commercials prepared after that month used the latter theme although the "Every Body Needs Milk" ads then in use continued to be run concurrently with ads featuring "Milk has something for every body" until around January 1973 when the last of them was supplanted by ads with the new slogan (Manley, Tr. 11527-28; see RPF 350). [21]

31. In and by itself, and as a theme for advertising, the slogan "Milk has something for every body" does not convey the representation that milk is "essential, necessary and needed by all individuals."

The slogan "Milk has something for every body" does convey the representation that milk contains substances nutritionally valuable for all individuals and is beneficial for all individuals.

32. The advertising of the Milk Board and Cunningham & Walsh using "Milk has something for every body," however, was disseminated concurrently during the closing months of 1972 with ads featuring "Every body needs milk," and followed over two and one-half years of intensive "Every body needs milk" advertising disseminated throughout California via billboards, TV, radio, print and point of sale material, even including use of "Every body needs milk" on the sides of milk tank trucks. Under these circumstances, and particularly in view of the intensity and the deep penetration achieved by respondents' "Every body needs milk" advertising (CX 3067(g)), the "Milk has something for every body" advertising had the capacity to evoke in the viewing, listening and reading public the message and representation that milk is "essential, necessary and needed by all individuals" (RX 1797; CX 3001; Dr. Aaker, Tr. 5297-5300). Additionally, some of the advertisements of the Milk Board and Cunningham & Walsh using "Milk Has Something for Every Body" in their net impression specifically did convey the representation that milk was "essential, necessary and needed by all individuals" for good health. Examples of such commercials were by Diahann Carroll, a TV singer and actress celebrity who was added to the Milk Board's celebrity group in January 1973 (CX 109, 110), two commercials by Mark Spitz (CX 7, 65), and a commercial featuring Karen Valentine which was first produced using "Every body needs milk" and later disseminated using the new theme "Milk has something for every body" (CX 106(a), and CX 106(b), (c)).

33. In "Skinny Girl" Diahann Carroll recounted to TV viewers (CX 109):

> Oh, I was a skinny little girl and I had to be nagged to do anything that had to do with eating or drinking anything but uh. . .the milk, was three times a day. It was insisted upon by my Mom. It seems she knew what she was talking about because when I went into a very strenuous uh, business, I found that I was a very strong, very healthy person and I think it had to [22] do with, what I call, a very well balanced, very well thought out diet, by my mother that included a glass setting right by that plate every time we sat down.

Print and voice announced "Milk Has Something For Every Body. . .Even Diahann Carroll's." In "My Teeth Are My Own" Ms. Carroll advised TV viewers (CX 110):

> My daughter's teeth are very good, so milk must have some calcium in it that is doing the trick 'cause we are. . .uh *always* complimented. . . uh. . .people usually think my teeth are not my own. Uh. . .they are all mine. I don't mean I pay for them, I

mean I was born with them. We can attribute it, I think, t'amounts of milk that I. . .drink.

Again the "voice over" ad screen stated "Milk has something for every body . . . Even Diahann Carroll's." Both ads had the tendency and capacity to convey the message that milk was essential to good health.

34. In a newspaper ad and a TV commercial using "Milk has something for every body" Mark Spitz conveyed the advice that milk was something your "body needs" (CX 7), that milk was something your "body really needs" (CX 65). In the overall context these ads, like the "Every body needs milk" ads, conveyed the impression that milk drinking was indispensable for good health.

35. In the "Milk has something for every body" version of "Ballerinas," Karen Valentine told the viewing audience, as she did in the "Every body needs milk" ad, that dancers "drink a lot of milk" that it was "good for the bones—it makes your legs strong, and concluded after the "Milk has something for every body . . . Even Karen Valentine's" announcement by the "voice over" and the screen, by stating (CX 106(c)):

KAREN: I've never had anything broken except for a fingernail. Really. I don't know if that has anything to do with drinking milk, but it sure saved a lot of doctor bills! [23]

"Beneficial For All Individuals"

36. The advertising of the Milk Board and Cunningham & Walsh represented to the public that milk drinking was "essential, necessary and needed by all individuals" for good health. It follows that respondents' advertising represented that the consumption of milk is beneficial for all individuals. If the foregoing finding were disregarded, it nevertheless is obvious that the "Every body needs milk" and "Milk has something for every body" advertising conveyed to the public that milk drinking was beneficial for all individuals.

"Beneficial In Large Or Unlimited Quantities"

37. The Milk Board and Cunningham & Walsh created and published a number of advertisements which portrayed celebrities consuming very large amounts of milk, or in which celebrities recounted the large amounts of milk they drank. These commercials conveyed the representation that the consumption of milk is beneficial in large or unlimited quantities (CX 6, 51(a), 52, 57(a), 58(a), 59(a), 63, 64, 105(a), (b), 111). Recounting by successful athletes and entertainers of the large quantities of milk they drank, and the

benefits they felt they gained therefrom, conveyed the implicit message that members of the public would receive similar benefits. All the testimonials were made in conjunction with the theme "Every Body Needs Milk" or "Milk Has Something For Every Body" reinforcing the message that consuming large or unlimited quantities was beneficial for bodily health.

Allegation that Advertising Represented that Milk Consumption Would Prevent or Lessen the Probabilities of Contracting Colds or Arthritis

38. A TV commercial disseminated in the latter part of 1971, already described, featuring "Dear Abby" contained the following sequence (CX 100(a), (b)): [24]

VIDEO	AUDIO
ECU ON CU DEAR ABBY.	ABBY: I've got my hand on the pulse of the public really. People tell me things they wouldn't tell anybody else. Kids tell me things they wouldn't tell their parents, husbands tell me things they wouldn't tell their wives, and vise versa, and I imagine it's a great outlet. I'm only in daily newspapers and I publish around the world, Ireland, Buenos-Aires -- 55 million dailies a lot of people read. I travel quite a bit in my work. I go on speaking engagements a when I do I have to keep my energy up. I have a lot of vitality, I always have, thank heavens. I have very good health, I'm seldom sick, I very seldom have a cold and I think I probably could attribute th to the fact that I have been a milk drink all my life, and I still am.
O TITLE: EVERY BODY NEEDS	ANNCR: Every body needs milk. CX 100(a)
O TITLE: Even Dear Abby's.	Even Dear Abby's.
O CU OF ABBY. SUPER TITLE: bby's services donated to ıai Free Bed Fund, ɔolis, Minnesota. Milk y Board.	ABBY: That sounds like an ad for milk doesn't it? And you know something? It is! CX 100(b)

[25] A radio commercial broadcast at the same time contained the same continuity (CX 55).

39. A dancer, Ray Bolger, appeared in a TV commercial disseminated between February 1972 and July 1972 with the following sequence (CX 103(a)):

RAY: The big important thing in our business — the movement of the body — is to keep your calcium balance. The extremities, for instance; the hands. We use our hands, in dancing, see? We must have a facility of having freedom of the hands. The hands are a beautiful thing when used properly. I mean when they're, ah . . . but they shouldn't look like you're playing Dracula, you know. And so therefore you want them kind of free and easy and you can't have arthritic little joints. So, one has to have sufficient calcium intake to have that calcium distributed properly . . . it's terribly important that you have your proper intake of milk. I suppose it would be obvious for me to say that I drink milk. But it's more than obvious; it's an absolute necessity for me.

The same continuity in substance was broadcast over radio (CX 61).

40. There was no representation in the "Dear Abby" commercial that milk would specifically prevent an individual from catching a cold or that milk had specific medicinal properties that would materially lessen the "probabilities" of catching a cold. Nor was there a representation in the Ray Bolger commercial that milk would specifically prevent arthritis or that it had specific medicinal properties which would materially lessen the "probabilities" of becoming arthritic. Milk has an image in the American culture of being the "perfect" food and exceptionally nutritious. And, in fact, milk is exceptionally nutritious. These commercials conveyed the message that a well-nourished body was less likely to "catch a cold" or suffer from arthritis, and that "Dear Abby" and Ray Bolger emphasized milk in their diets so their bodies would be well nourished, to provide their bodies with an abundance of necessary nutrients in which milk is unquestionably unusually rich. To read into these commercials the communications "If you drink milk you will not catch cold" or "If you drink milk you will not contract arthritis" is [26] unreasonable. But even if these communications were read into these commercials, they did not have the ability to mislead. Not even "the ignorant, the unthinking and the credulous" in today's world would believe that drinking milk will prevent colds or will prevent arthritis.

Respondents' Market Research

In the preceding findings the undersigned concluded that the advertisements disseminated by the Milk Board and Cunningham & Walsh featuring "Every body needs milk," and some of those

featuring "Milk has something for every body," made the representations alleged in the complaint, except those relating to the prevention of colds and arthritis. This conclusion was based upon an examination and viewing of the ads themselves, and is sufficient for the purposes of this decision. However, that conclusion is confirmed by market research conducted by respondents, or at their direction. Such market research disclosed, among other things studied, the messages and representations conveyed to the public. Contrary to respondent's contention (see, *e.g.,* RPF 831), the fact that the particular studies involved did not have the specific purpose of ascertaining the representations made by the advertising does not necessarily invalidate a showing of those representations when such emerged from the research.

41. On September 24, 1971, Cunningham & Walsh reported on an "on-air" test of three 60 second TV commercials (RX 1454), two of which, "Dear Abby" (CX 100(a) and (b)) and Vikki Carr's "Milk-a-holic" (CX 105(a) and (b)), have already been discussed. The audio portion of the Pat Boone commercial is set out in RX 1454(k). All three of these commercials were broadcast within a half hour period on August 10, 1971, in Fresno, San Diego and Bakersfield. The evening following the broadcast, telephone interviews were conducted with men and women (18 years and older) who had been watching the program on which the test commercials were aired (RX 1454(c)). Out of 9007 dialings, contacts were made with a total of 465 persons who were viewing when the commercials appeared over TV. These persons were asked questions designed to elicit the person's recall of the commercials, what was shown and said, and what the person interviewed thought "they were trying to tell you about milk" (RX 1454(z)90, 1454(c)). The responses of those interviewed were recorded in a series of "verbatims" (RX 1454(z)(4) through RX 1454(z)(84)).

42. The "verbatims" were coded in the report to group them in accordance with the ideas or portions of the ad recalled, and "played back" to the interviewer in response to questions. According to the report, the commericals communicated very well even though, in contrast to most commercials, they [27] depended almost entirely on the audio portion to convey their message (RX 1454(i)). The percentage of commercial recallers who played back each segment of the "Dear Abby" ad was set out in a tabulation (RX 1454(j)). Forty-seven percent of the male and twenty-one percent of the female recallers played back "Every body needs milk" or "everybody needs milk," two versions being stated here because by telephone it is clearly impossible to tell if a person intended to say "every" "body" or "everybody" (see RPF 834). Nineteen percent of males and

twenty-six percent of females played back "Every body needs milk" or "everybody needs milk" from the Pat Boone commercial (RX 1454(k)). For the Vikki Carr commercial, "Milk-a-holic," these percentages were thirty and twenty-six respectively (RX 1454(1)).

43. Inasmuch as "verbatims" are statements of the person interviewed which are written down by the interviewer, they are a clear indication of the messages and ideas communicated by the commercials. Respondents' arguments to the contrary are not persuasive and are rejected (see, RPF 816–50). There is no reason to believe that persons responding to telephone questions asking "What do you think they were trying to tell you about milk," and who replied "everybody needs milk" or "Every body needs milk," were using the word "needs" in a sense other than its ordinary meaning of "necessity," "necessary" or "required" (see RPF 857). This argument might have some cogency if there were only one or two such responses, but there were many. Nor is it valid to argue that the "verbatims" do not reveal the representations made by the ads because they elicited opinions already held about milk (RPF 857–70). Obviously, many people have positive ideas about milk, and many may even believe, apart from respondents' advertising, that milk is a dietary essential. The interviewer, however, did not ask what the person interviewed thought or believed about milk, or his opinions about milk, but what the ads *showed,* what the ads said and what the ads *were trying to tell you about milk* (RX 1454(z)(90)). Even though it is theoretically possible that a person interviewed might disregard the questions asked and respond with his preconceived opinions, the likelihood that that happened to any significant degree in this particular study is remote and provides no basis for disregarding the "verbatims" recorded.

44. The "verbatims" contained in the "on-air" test (RX 1454) reveal that the "Dear Abby," Pat Boone, and Vikki Carr commercials conveyed the representation that everybody needs milk as a dietary essential for good health. [28]

45. In July 1972 an "on-air" TV test was conducted of two Karen Valentine commercials, one using "Every body needs milk" and the other the then new slogan "Milk has something for every body" (CX 3000, p. 388; RX 1797). The purpose was to compare the effectiveness of the commercials in terms, among others, of "communication of main ideas." The commercial featuring "Every body needs milk" was tested in three cities, Bakersfield, Portland and Spokane. The commercial using "Milk has something for every body" was tested in Fresno, Eugene and Seattle. The evening following the "on-air" date, telephone interviews were conducted with men and women over 18

years of age who had seen the ads, and questions were asked "what was recalled about the commercials" and "what ideas about MILK were brought out in the commercials" (CX 3000, p. 391; RX 1797(d)). As in the case of the "Dear Abby," Pat Boone and Vikki Carr commercials, a large number of "verbatims" were recorded by interviewers (RX 1797(z)(5) through (z)(51)). In answer to the question "what ideas about milk were brought out in the commercial last night" (RX 1797(z)(93)), 24 out of 195 thought with respect to the "Every body needs milk" commercial that it conveyed the idea that milk was essential for everyone (RX 1797(z)(5) through (z)(55)). Some of those interviewed did more than simply play back "everyone needs milk" stating, for example, that the commercial brought out "everybody needs milk and its good for your teeth" (RX 1797(z)(7)), "that every body needs milk to keep healthy" (RX 1797(z)(8)), "that everybody needs milk and its good for you" (RX 1797(z)(23)), "Everybody needs milk no matter what your age is, adults and children . . . that's all I remember" (RX 1797(z)(34)), "That it is good for you and that everybody needs milk" (RX 1797(z)(41)), "It is good for you and things from milk can be gotten from no other source" (RX 1797(z)(43)), "Just her — and every body needs milk even Karen Valentine's body needs milk . . ." (RX 1797(z)(43)), "Basically, everyone needs milk, even a star personality . . . Every person needs to drink milk . . ." (RX 1797(z)(44)), "Every body needs milk. . . It's good for your body . . . More than soft drinks, but really can't remember if this was part of the commercial . . . That is so, I think" (RX 1797(z)(50)), "that people on the go need milk and it builds your body up" (RX 1797(z)(51)).

46. With respect to the version that used the slogan "Milk has something for every body," 26 out of 114 interviewed also thought the commercial communicated the idea that everyone needed milk (RX 1797(z)(56) through (z)(86)). Cunningham & Walsh reported that 26% of the "verbatim" responses fell into the category "*Every* body/*all* people/etc./ need milk" (RX 1797(k)) (emphasis in original). "Table 6" which Cunningham & Walsh [29] characterized as showing "what the new slogan means to people," and which was captioned "Interpretation of Slogan's Meaning," listed 26% as deriving the message "Everybody/all people/all human beings/young or old need/should have milk" (RX 1797(y)).

47. In August 1972 a Marketing Consulting and Research firm, Haug Associates, Inc., conducted an evaluation of a proposed billboard campaign for the Milk Board developed by Cunningham & Walsh using "Milk has something for every body" to compare that heme with "Every body needs milk" (CX 3001, pp. 11 through 70

(handwritten page numbers)). Part of this study involved showing a person a photograph of Phyllis Diller with the headline "Every body needs milk" at three exposure speeds, threshold of perception, one second and five seconds, with the question then asked "What are the main ideas the advertiser is trying to get across" (CX 3001, pp. 14–28). This evaluation showed that between 61 and 76 percent of those tested, depending on whether the exposure of the ad was "threshold," "one second" or "five seconds," thought the "main idea (net)" of the commercial featuring "Every body needs milk" was that "Every body/all ages need milk," and thought that the slogan "Every Body Needs Milk" itself meant that "Every body/all ages need milk" (CX 3001, pp. 40, 42).

48. Between 31% at threshold exposure and 73% at five seconds thought the "Main Idea (net)" of the Phyllis Diller ad with the slogan "Milk has something for every body" was that "Every body/all ages need milk" (CX 3001(z)(24)), and 73% thought "Milk has something for every body" means "Everybody/all ages need milk" (CX 3001(z)(26)).

49. As stated earlier, respondents' "Milk has something for every body" advertising commencing in late 1972 followed two and one-half years of intensive advertising over all media throughout California featuring "Every body needs milk." Under these circumstances the advertising using "Milk has something for every body" had the capacity to evoke the message and representation in the minds of members of the viewing, listening and reading public contained in the "Every body needs milk" advertising that milk was "essential, necessary and needed by all individuals." The results of the market research reviewed in the foregoing findings 45 through 48 demonstrate this.

50. Although the results of respondents' market research and the "verbatims" obtained are not projectable to any specific portion of the population, that fact does not destroy their value as evidence demonstrating that the advertisements had the [30] capacity to represent, and represented that milk was "essential, necessary and needed by all individuals" for an adequate diet and good health.

51. Dr. David Aaker was called by complaint counsel as an expert witness in the field of advertising and marketing research. Dr. Aaker is a Professor of Marketing at the University of California, Berkeley. He has done extensive research and writing in the area of marketing research. This has included developing questionnaires, overseeing master's theses, supervising the research of students, and designing research projects, some of which involved advertising or consumer perception of advertising. He is familiar with the pretesting and

post-testing of advertisements. He has also done research involving evaluating advertising copy. He has developed media models as predictors for marketing. He has published approximately 30 articles in the field of marketing. He has also published books entitled, *Multivariate Analysis in Marketing, Advertising Management, Advertising Management, Practical Perspectives,* and co-authored *Consumerism: Search for the Consumer Interest* and *Modern Marketing,* as well as a new book on marketing research not yet in print when this proceeding was completed. At the University of California, his ten years of teaching have included courses in marketing, advertising, consumer behavior, marketing research, marketing management, and statistics. He has been on the editorial board of *Management Science, The Journal of Marketing, The Journal of Marketing Research,* and *The Journal of Business Research.* In a University of Wisconsin poll, he was ranked among the 30 "thought leaders" in marketing. According to a Georgia State University poll, he was the 20th most quoted marketing writer in the United States. He has also been employed as a marketing consultant, working on a variety of aspects of advertising problems (Dr. Aaker, Tr. 5192–5201; CX 4000).

52. Dr. Aaker was asked to state his expert opinion whether consumers perceived advertising which carried the slogan "Every body needs milk" to mean that milk consumption is necessary for all persons (Tr. 5225). Dr. Aaker testified that in his opinion "a substantial majority of people would interpret such advertisements to mean that milk is necessary for all people" (Tr. 5226, 5233, 5290, 6392). Dr. Aaker based this opinion upon his expertise and upon marketing studies obtained from respondents and from other sources. In Dr. Aaker's opinion, respondents' advertising carrying the "Everybody needs milk" slogan basically reminded people of existing attitudes and beliefs they held about milk (Tr. 5528–29). In Dr. Aaker's opinion, pre-existing beliefs and attitudes about a product, [31] and behavior habits toward a product, will affect consumer perceptions of representations made in advertisements (Tr. 5229, 5235–44). In Dr. Aaker's opinion, pre-existing beliefs, attitudes and behavior relating to milk were well-developed, and were that milk is a nutritious food, and a healthy food, and in Dr. Aaker's opinion, a good majority believed that "adults need milk" (Tr. 5230, 5234). The fact that respondents' advertising using the theme "Every body needs milk" might strike a responsive chord in many persons exposed to that message, evoking pre-existing beliefs and attitudes about milk, does not lessen the significance of the message conveyed by respondents' advertising. Dr. Aaker's opinion

that a substantial majority of people would interpret advertising which used "Every body needs milk" to mean that milk is necessary for all people, in the sense that it is a dietary essential for good health, is credible, is supported by the market research of the Milk Board and Cunningham & Walsh or research conducted at their direction, by other market researchers in the record, and is consistent with the content of the advertisements themselves.

Milk as a Dietary Essential

53. Literally speaking not everyone needs milk in the sense that it is a dietary essential for every individual's good health. The human body needs the nutrients in milk for good health, but these can be obtained from other sources. The evidence in the record establishes, however, that this is not an easy matter for any given individual, particularly with respect to the body's calcium needs and certain other nutrients. Milk is one of the most nutritious foods in the nation's diet, and from the standpoint of the population as a whole, or even significant population groups, is literally "essential, necessary and needed." The withdrawal of milk from any major population group would amount to a nutritional disaster.

54. Nutrition texts are virtually unanimous in characterizing milk and dairy products dietary essentials for the body to obtain required nutrients. Krause and Hunscher, *Food, Nutrition and Diet Therapy* (5th Ed. 1972), states (RX 419(b)):

> The value of milk in the [diet] for all age levels has been repeatedly emphasized throughout this text. It furnishes about a hundred nutrients but is outstanding in importance for calcium, riboflavin and protein. Three-fourths of the calcium, [32] nearly one-half of the riboflavin, and one-fourth of the protein in the country's food supply come from milk. If milk is omitted or sparingly used in the diet, it is difficult to meet the requirement for calcium and riboflavin.

Another text, Dickie, *Diet in Health and Disease, Rationale and Practice,* (1974) states (RX 416(h)):

> Without milk, the diet will not meet the recommended dietary allowance for calcium and will probably be low in riboflavin and tryptophan.

Fleck, *Introduction to Nutrition,* (3rd Ed. 1976) states (RX 417(1)):

> Most authorities agree that milk is the single most important food in the diet. The greatest contribution of milk from the nutritive standpoint is calcium, which is very poorly distributed among other foods. It is therefore imperative that some kind of milk product be included in the diet every day to be assured of meeting the calcium requirement.

Robinson, *Normal and Therapeutic Nutrition,* (14th Ed. 1972) states (RX 435(k)):

* * *There is no adequate substitute for milk. No food has a wider acceptability or offers a greater variety of uses. Adults of all ages should include about 2 cups of fluid milk daily, or its equivalent as evaporated milk, dry milk, or hard cheese. This allowance should be raised to 3 cups or more for school children and pregnant women and to 4 cups or more during the adolescent years and for the nursing mother.

Mitchell, et al., *Nutrition in Health and Disease,* (16th Ed. 1976) states (RX 422(k)): [33]

* * * milk and milk products are the most important sources of calcium in readily available form. A few of the green, leafy vegetables used commonly in the Southern states are good sources of calcium, but others such as spinach, chard, beet greens, and rhubarb contain sufficient oxalic acid to form insoluble calcium oxalate, thus rendering the calcium unavailable. In most sections of the country greens are not used regularly enough or in sufficient quantity to be relied upon to replace milk, but they are important when milk is scarce or unobtainable.

Bogert, Briggs and Calloway, *Nutrition and Physical Fitness* (9th Ed. (1973) states (RX 415(m)):

The inclusion of at least a pint of milk daily in the diet of adults is urged as the chief means for obtaining the calcium quota, as well as for the high quality proteins and vitamins that milk provides. For those who do not drink milk it should be incorporated in cooked foods wherever possible, and the more common use of cheese would also be advantageous.

55. Expert testimony from nutritional experts in this proceeding likewise established milk to be a dietary essential. Dr. Louise Page, Group Leader, Food and Diet Appraisal Research Group, Consumer and Food Economics Institute, United States Department of Agriculture testified (Tr. 8900):

* * * Individuals can pick and choose among the other foods and come up with diets to get calcium but they will have a hard time getting recommended amounts of calcium* * *. You would have to rely heavily and constantly upon dark green vegetables, salmon, sardines, which is a very limited diet * * * if we ruled out milk as a source of calcium, there is not enough calcium provided by the other foods to meet the recommended amounts of calcium for all the population.

[34] Dr. George Briggs, Professor of Nutrition and Assistant Dean, College of Natural Resources, University of California at Berkeley, known nationally and internationally as an expert in human nutrition, and an author of textbooks and treatises on nutrition, testified (Tr. 7715):

If suddenly milk ran out in California * * * and we all had to get calcium from other sources we would, we could do it but it would take some scientists working

together and some very strange foods coming into our supply and probably we would have to use calcium carbonate or calcium phosphate as a mineral, as fed to cows. That is where they get their calcium. We could do it if we had to do it but we prefer to do it because we are a country of choices by taking milk or milk products * * *.

Dr. Michael C. Latham, an international authority, Professor of International Nutrition and Cornell University, testified (Tr. 9710):

Within the context of the U.S. dietary patterns of habit it is really quite difficult for individuals to get adequate amounts of such nutrients, particularly calcium and riboflavin without the consumption of milk. I am not saying it is impossible but it is quite difficult. . . .

56. As indicated, milk is by far the major source of calcium in the American diet. Since the 1940's, milk has supplied about 75% of the calcium (Dr. Briggs, Tr. 7840, 8149; Dr. Page, Tr. 8846, 8848, 8853; *National Food Situation,* RX 323(d), RX 1614(d)). The most recent United States Department of Agriculture statistics on the calcium contribution of milk is contained in the November 1976 *National Food Situation.* These figures show that fluid milk provides almost 50% of the calcium in the United States diet, 30.8% from whole milk and 14.8% from low-fat milk (RX 323(f)). *National Food Situation,* recently renamed *National Food Review,* is the authoritative and the only source for figures on the amounts of foods available in the United States food supply and the nutrients supplied therefrom (Dr. Briggs, Tr. 8143–52). [35]

57. Milk and milk products supply major amounts of various other essential nutrients to the American diet based upon the available food supply (Dr. Briggs, Tr. 8055–56). The most significant are (*National Food Situation,* January 1978, RX 1614(d); Dr. Briggs, Tr. 7840–41):

22% of the protein;
35% of the phosphorus;
21% of the magnesium;
39% of the riboflavin;
20% of the vitamin B–12

This is true even though milk and milk products provide only 11% of the food calories (RX 1614(d), see *Ten-State Survey,* CX 638 at III–13).

58. Notwithstanding the relative affluence of the United States, food consumption studies by the Department of Agriculture in the 1950's showed that calcium and vitamin A were often below the Recommended Dietary Allowance (RDA) levels (Dr. Page, Tr. 8831, 8904–05). The Household Food Consumption Survey done in 1965–1966 by the Department of Agriculture, furthermore, showed that

dietary intakes of some essential nutrients were decreasing rather than increasing. Diets nationwide frequently failed to provide even two-thirds of the RDA for calcium and vitamin A. Calcium shortages were attributed in part to low consumption of milk products (RX 403(b–d); CX 567(c); Dr. Briggs, Tr. 8137, 8165; Dr. Paige, Tr. 1047–49).

59. In 1969 a White House Conference on Food, Nutrition and Health was held (RX 401). One of the panels, considering the provision of food as it affects the consumer, expressed concern that decline in consumption of milk, especially among low-income families, was contributing to nutrient deficiencies (Dr. Paige, Tr. 1044–47; CX 640(y–z)).

60. In the late 1960's, in response to express direction from Congress, the Department of Health, Education, and Welfare began the first comprehensive survey ever developed to assess the nutritional status of a large segment of the United States population (CX 638(i–l). The Ten-State Survey, as it became known (Dr. Briggs, Tr. 8362), was specifically designed to evaluate the relationship between intake and utilization of food and total health status. The study sought to identify not only overt signs and symptoms of malnutrition but also to detect early "risk" signals (CX 638(i)–(3)). The Ten-State study involved clinical assessment, biochemical measurement, [36] dental examinations and dietary evaluation (CX 638(i–3) through CX (i–5)). California was one of the ten states surveyed (Dr. Briggs, Tr. 8168; CX 638(i–5)).

61. The Ten-State Survey showed evidence of malnutrition, most commonly in blacks, somewhat less frequently in Spanish Americans, and least frequently in whites (RX 324(i); CX 638(iv–289)). Vitamin A, riboflavin and calcium obtained from milk, were low (Dr. Briggs, Tr. 8169–70, 8353). Poor riboflavin status, measured biochemically, was a moderate nutritional problem among young people of all ethnic groups and low-income blacks of all ages (CX 638(iv–217); RX 324(e)).

62. An 8 ounce glass of milk provides 25% of the U.S. recommended dietary allowance for riboflavin for adults (CX 567(j)). Regarding calcium, the Ten-State Survey used no biochemical or clinical measurements, only dietary intake data, which were collected for certain age groups. The dietary standards of adequacy for calcium intake were considerably lower than the optimum amounts set by the RDA (Dr. Briggs, Tr. 8344, 8356, 8359, 8360; CX 638(v–2), (v–3) *compared with* RX 1721 at 102). Notwithstanding, large percentages of adolescents and pregnant and nursing women had deficient dietary intakes of calcium according to this measure (CX

638(v–81, v–233)). Eight ounces of milk provides 36% of the U.S. recommended dietary allowance of calcium for adults (CX 567(k)).

63. In young children, according to the Ten-State Survey, the prevalence of below-standard intakes of calcium increased with age due to decreasing milk consumption and replacement of milk by foods with a lower calcium density (CX 638(v–8)). In adolescents, the lowest calcium intakes occurred in blacks and Spanish Americans (CX 638(v–82)).

64. Another major study by the Department of Health, Education, and Welfare, known as the Health and Nutrition Examination Survey (HANES), was designed to measure the nutritional status of the United States population, using a representative probability sample of more than 10,000 persons aged 1 to 74 years (RX 1533(h)). Like the Ten-State Survey, this study was designed to detect early subclinical malnutrition as well as overt conditions (RX 1533(j)). The study showed that there is a significant portion of the United States population at risk of calcium deficiency, and the risk is greater in blacks than in whites generally (RX 1533(z 39–40), (z–43)).

65. The 1965 Department of Agriculture study (RX 403), the Ten-State Survey (CX 638; RX 324), and the Health and Nutrition Examination Survey (RX 1533), show that significant [37] numbers of the population are deficient in calcium, riboflavin or vitamin A. These nutrients, as stated, particularly the first two, are provided in major amounts in the United States diet by milk and dairy products (RX 1614; RX 323).

66. The Food and Nutrition Board, National Academy of Sciences, National Research Council, has established the amounts of calcium recommended each day for the United States population (RX 404 at 82–87, 129). Recommended Dietary Allowances (RDA) for calcium for various age and sex groups are (RX 404 at 129):

Children 1 to 10 years	800 mg
Teenagers 11 to 18 years	1200 mg
Adults 19 to 51+ years	800 mg
Pregnant and nursing women	1200 mg

The RDA is not a minimum requirement, but a standard designed to serve as a goal for good nutrition and to meet the known nutritional needs of practically all healthy persons (RX 404 at 2, 13; Dr. Briggs, Tr. 8097–98). RDAs are formulated by an expert committee of nutritional scientists and medical nutritionists. They are arrived at

on the basis of developments in nutritional science and are revised approximately every five years. RDAs are approved by the drafting committee, the Food and Nutrition Board, and the executive committee of the National Academy of Sciences before they are published (Dr. Briggs, Tr. 8095, 8101, 8104). RDAs are developed specifically for use with the United States population, taking into account peculiarities of the food supply, eating patterns, climate and other factors. They are different from allowances used in other countries or by international agencies (Dr. Briggs, Tr. 8100). The National Academy of Sciences is the highest accepted authority on amounts of nutrients recommended for the United States population (Dr. Briggs, Tr. 8101; Dr. Page, Tr. 8888).

67. The "Basic Four" nutrition guide published by the U.S. Department of Agriculture lists milk and dairy products as a separate food group based on the fact, according to Dr. Louise Page (Tr. 8846–48), that "74% of the calcium available in the food supply comes from dairy products . . . So, if you do not have dairy products in your diet, it becomes quite difficult to get the recommended amount of calcium" (see also RX 1505(f), *Essentials of an Adequate Diet).*

68. From a nutritional standpoint it would be misleading to suggest that any significant population groups in the United States could obtain the necessary calcium in their diets from sources other than milk and dairy products. As [38] already stated, and as Dr. Page testified, "if we ruled out milk as a source of calcium, there is not enough calcium provided by the other foods to meet the recommended amounts of calcium for all the population" (Dr. Page, Tr. 8855, 8900).

69. Very few foods other than milk exist which are feasible alternatives for calcium (Dr. Briggs, Tr. 5777–78; CX 640(z–29), (z–32), (z–34); see USDA's food composition tables, RX 1478 and 1479). This is true for a number of reasons. Many foods high in calcium are not frequently consumed by all individuals, have limited availability due to seasons, or require consumption in excessive quantities to obtain sufficient calcium (Dr. Briggs, 5778–81, 7843–75, 7927–42, 7954–56; CX 657(d) and (e)). A number of foods high in calcium are relatively expensive, at least in relation to fluid milk, and others contain calcium not readily absorbed by the body due to the presence in the foods of oxyalate, fiber or phytic acid compounds (Dr. Briggs, Tr. 7809–18, 7842–49, 7872–74, 7933–38; CX 657(d) and (e), CX 640(z–28)–(z–29)). Further, other foods or sources of dietary calcium may have undesirable characteristics at the consumption levels for adequate calcium intake, may not lend themselves to easy or

convenient preparation, may not be practicable as a regular part of the daily diet, or may not be palatable (Dr. Briggs, Tr. 7843–45, 7865–69, 7928–35, 7955–56). Finally, dietary supplements such as calcium pills are not a practicable source of dietary calcium for large segments of the population. Dr. Briggs, who had experience for five years as a member of a panel of experts convened by the Food and Drug Administration to study over-the-counter mineral and vitamin products, testified that calcium pills for general use posed a risk of over-dosage and bodily imbalance which could be harmful or even dangerous (Dr. Briggs, Tr. 7143, 7822–25).

70. Foods which may supply a major part of the calcium in the diets of the populations of other countries in the world are not part of the United States food pattern. For example, tortillas made with lime-soaked corn (Dr. Briggs, Tr. 7827–28; CX 640(z)(29)). There is evidence that nutrition problems due to calcium deficiency exist in countries where milk is not widely available. Osteomalacia, a condition reflecting low intake of calcium and vitamin D in adults, is prevalent in the Orient where diets are low in calcium (CX 640(z)(29–30); Dr. Briggs, Tr. 7828, 7830–34). It cannot be assumed that calcium intake is adequate in countries where people do not drink milk or consume dairy products. Nor can it be assumed that low calcium intake in those countries is associated with normal health and growth, and has no adverse effect on the populations of such countries. [39]

Primary Lactase Deficiency

Insofar as the general population is concerned, those not subject to "symptomatic lactose intolerance" or allergic to milk, there is no issue in this proceeding respecting the truth of the advertising of the Milk Board and Cunningham & Walsh. The complaint challenged respondents' advertising only as directed to "individuals with health problems such as certain allergies, and symptomatic lactose intolerance." The issue, therefore, is whether respondents' advertising was false, misleading, deceptive, or unfair in view of the presence in the population of persons who are "symptomatic lactose intolerant" and of persons who are allergic to milk.

Nature and Cause

71. Although not in general use in the medical and scientific literature on the subject, the term "symptomatic lactose intolerance" describes a condition in which individuals are intolerant to lactose when ingested and develop symptoms from such ingestion.

72. Lactose is the sugar found in milk, and is sometimes called "milk sugar." Lactose is produced only by the cells found in a lactating mammary gland (Dr. Kretchmer, Tr. 392; CX 244, p. 3). The constituents of cow's milk are water, lactose (about 5%), fat (about 4%), vitamins, minerals, and proteins (Dr. Briggs, Tr. 5845, 5847; RX 295). Milk is the only natural source of lactose, it does not occur naturally in other animal or vegetable foods. Lactose is also present in significant quantities in certain dairy products made from milk, in whole or in part, such as ice cream and cottage cheese (CX 245, Table 2). A number of other products manufactured from milk, such as hard cheese and true yogurt, contain little lactose because it is fermented out during the manufacturing process (Dr. Herman, Tr. 12253–59). Some yogurt in the U.S. is not completely fermented, and thus contains a somewhat greater amount of lactose than true yogurt (Dr. Kretchmer, Tr. 392, 431–32). Lactose in small amounts is present in some manufactured foods made with milk as an ingredient, and is added in some instances to other foods during their manufacture (Dr. Kretchmer, Tr. 392; Dr. Briggs, Tr. 5847–58, 7764–65, 7730, 8501; RX 251(c); CX 531).

73. Lactose is a disaccharide or double sugar composed of two monosaccharides, glucose and galactose. Lactose, as such, cannot be absorbed through the intestinal wall, but for absorption must be broken down into the foregoing two monosaccharides (CX 244, pp. 3–4; Dr. Briggs, Tr. 5901). [40]

74. Lactose is metabolized or broken down in the intestinal track, through the agency of an enzyme known as lactose, into glucose and galactose which are absorbable. Lactase is present in the walls of the small intestine (CX 244, pp. 4–5, Dr. Briggs, Tr. 5879, 5889, 8464–65, 8501; Dr. Kretchmer, Tr. 393), and is the only enzyme which metabolizes lactose (Dr. Paige, Tr. 889–91; Dr. Kretchmer, Tr. 393; CX 244, p. 5). If the quantity of lactose entering the small intestine exceeds the lactase activity available, the excess lactose will not be metabolized (Dr. Paige, Tr. 889–91; Dr. Kretchmer, Tr. 393, 653–57, 667; see also CX 244(f), 500(g)).

75. Lactase sufficient to digest the lactose in milk is normally present in the small intestine in all persons until the age of weaning (Dr. Kretchmer, Tr. 404; CX 498(e)–(g); CX 244(h)). Thereafter, in much of the world's population particularly non-caucasians, the level of lactase present in the intestinal tract declines from infancy in a normal progression to a point which may be described as low lactase activity or lactase deficiency (Dr. Paige, Tr. 894; Dr. Kretchmer, Tr. 397; Dr. Briggs Tr. 8590; Dr. Latham, Tr. 9166–67; CX

244, 498). This type of low lactase activity is often referred to as "primary lactase deficiency" (Dr. Paige, Tr. 894).[1] This term will be used herein for convenience although the word "deficiency" is arguably inappropriate when probably a majority of the world's population has low lactase activity after early childhood (see CX 244, p. 3).

76. The continuation of high levels of lactase activity after early childhood and throughout adulthood in persons of European and particularly northern European origin is an inherited trait (Dr. Kretchmer, Tr. 397; Dr. Paige, Tr. 894; Dr. Latham, Tr. 9181) which appears to be associated with many generations of milk drinking and dairy product consumption (CX 246, 589, 595).

77. Where lactase activity is deficient, lactose present in milk, depending on the amounts ingested in relation to the lactase activity present, may not be digested. [41] that is, broken down into glucose and galactose. Reduced absorption of lactose as a consequence of low lactase activity is referred to as lactose malabsorption (CX 636; Dr. Kretchmer, Tr. 398). Lactose not digested in the small intestine as a result of lactase deficiency passes into the large intestine where it is subject to bacterial action and ferments or decays. The result may be the emergence of symptoms in the individual, generally mild, such as "gas," "bloating," "cramps," or "loose stool" (Dr. Kretchmer, Tr. 401–02; Dr. Scrimshaw, Tr. 9853; CX 244(g); CX 500(d)). The term lactose intolerance or "symptomatic lactose intolerance," used in the complaint, would apply to this condition (Dr. Paige, Tr. 850, 897; Dr. Latham, Tr. 9157, 9170; see also CX 458, 464, 484, 485, 517).

78. As indicated, the presence of symptoms and their degree in those lactase deficient is related to the quantity of lactose ingested in relation to the available lactase activity (Dr. Briggs, Tr. 8536–37; Dr. Kretchmer, Tr. 653–57, 667; Dr. Scrimshaw, Tr. 9848–53, 9856), and to some extent possibly to the circumstances of ingestion, for example whether in milk or with other food (Dr. Briggs, Tr. 8200–08; Dr. Paige, Tr. 1285–89; CX 507). The greater the quantity of lactose ingested, the more probable is the occurence of symptoms mentioned in the preceding finding, and the greater the probable degree of those symptoms (Dr. Kretchmer, Tr. 650, 653–57, 667; Dr. Scrimshaw, Tr. 9848, 9853, 9856; Dr. Herman, Tr. 12117, 12381; Dr. Paige, Tr. 948).

79. Medical science has not found any means for preventing or

[1] There are two other forms of lactase deficiency, not principally involved in this proceeding, "congenital" and "secondary." The former refers to lactase activity low or absent at birth, sometimes called "alactasia" (Dr. Kretchmer, Tr. 394–95; Dr. Paige, Tr. 892; CX 484(a)). This results from a genetic disorder and is very rare. "Secondary" lactase deficiency results from disease, surgery, or other secondary causes which eliminate or reduce lactase activity in the intestinal tract (Dr. Paige, Tr. 892–93; Dr. Kretchmer, Tr. 396; CX 407(b); RX 308(k)(1)).

arresting the genetically programmed decline in lactase activity after infancy among those subject to primary lactase deficiency (Dr. Paige, Tr. 895; CX 589). Nor has medical science found any means for inducing increased lactase activity after it has normally declined under such circumstances (Dr. Kretchmer, Tr. 398, Dr. Paige, Tr. 895; Dr. Herman, Tr. 12086-88).

80. Lactose malabsorption, as indicated, is a term used to describe reduced absorption of lactose among those lactase deficient, as determined by a lactose tolerance test (CX 636; Dr. Kretchmer, Tr. 398, 893). Lactose malabsorption obviously implies lactase deficiency since one is directly dependent on the other (Dr. Kretchmer, Tr. 893). An individual found to be lactase deficient therefore is often referred to as a lactose malabsorber (Dr. Paige, Tr. 893; Dr. Kretchmer, Tr. 399; see also CX 405, 449-84, 683). If an individual [42] who is lactase deficient, as determined by any of three test methods,[2] experiences symptoms following the ingestion of the test dose of lactose, the individual is considered "lactose intolerant."

Prevalence of Primary Lactase Deficiency

81. The record contains reliable evidence, within fairly broad ranges, of the incidence in various population groups of lactase deficiency of the primary type where the lactase enzyme level is high at birth but falls to a deficiency level after weaning through mid-childhood in persons without disease as a normal course of events due to genetic factors. In considering such incidence, however, it cannot be assumed that all individuals with lactase deficiency necessarily cannot drink milk without having symptoms or discomfort. Many persons with low lactase levels, if not most, drink one, two or three glasses of milk per day without any symptoms whatsoever (CX 244, p. 7).

82. Lactase deficiency is common throughout the world and in the United States. In fact, as stated, the bulk of the world's non-caucasian population is probably lactase deficient. In contrast, high levels of lactase activity are present throughout life among many

[2] The most widely used method for determining whether an individual is lactase deficient is the lactose tolerance test. This method involves having a subject ingest, usually in around 8 ounces of water, at one sitting, after fasting, a relatively large quantity of lactose, generally 50 grams. This is the lactose content of slightly over one quart of milk. A determination is then made of lactose absorption by either (1) obtaining blood samples from the individual at intervals after the lactose ingestion to determine whether the level of the sugar in the individuals blood has risen significantly or (2) measuring breath hydrogen (see Dr. Paige, Tr. 891; Dr. Kretchmer, Tr. 399; Dr. Herman Tr. 12025, 12245-50). The most accurate, but less frequent, method for determining lactase deficiency is a jejunal biopsy which involves removal of a sample of intestinal mucosa and assaying the sample (Dr. Kretchmer, Tr. 394-95; Dr. Paige, Tr. 391; Dr. Latham, Tr. 9168; CX 244, p. 9-10). The biopsy will show the precise level of lactase activity, and if there is a deficiency, whether it is primary or secondary (Dr. Herman, Tr. 12026, 12140, 12644-45, 12705).

Europeans, particularly northern Europeans, and among those with that ancestral background. [43]

83. Dr. David M. Paige, Assistant Professor of Pediatrics and Associate Professor of Maternal and Child Health, Johns Hopkins University, provided the following estimate of the prevalence of primary lactase deficiency among various population groups (Tr. 889–900, 934): northern European ancestry, 3%–4%, European ancestry but not northern European, 60%–65%, Blacks, 75%, Asians, 70%–100%, Mexican-Americans (Spanish surname), 53%, Caucasians overall, 15%–20%. Dr. Kretchmer estimated the white population of the United States to be 12% lactase deficient, and the country as a whole to be 15% to 20%. According to Dr. Kretchmer, persons of Asian origin were 70% to 100% lactase deficient, blacks about 70%, and persons of Hispanic background about 60% (Tr. 412–15, 428). Dr. Herman believed 10% of the population of the United States of northern European origin were lactase deficient and 50% of the population of other origins (Tr. 12045–47). In Dr. Herman's estimate 60% of the U.S. population had a northern European background and 40% other than northern European. See also CX 498 and 595.

84. Dr. Nevin S. Scrimshaw and Dr. Michael C. Latham are both internationally known and distinguished medical experts and authorities in the field of international nutrition and many other related scientific fields. Dr. Scrimshaw is currently Professor of Human Nutrition at M.I.T. Dr. Latham is Professor of International Nutrition at Cornell, as stated earlier. George C. Briggs, Ph.D., also earlier mentioned, is a nationally and internationally known nutritionist and Professor of Nutrition at the University of California at Berkeley. In research studies Dr. Scrimshaw reported the prevalence of lactase deficiency shown among non-Caucasians was 60% to 90%, and among Caucasians overall 5% to 15% (RX 305(c)); see also 306(c). In a paper for the Protein Advisory Group and other documents, Dr. Latham reported that 70% to 100% of non-Caucasians were shown by studies to be lactase deficient, and 10% to 20% of Caucasian adults (RX 308(t); CX 599(d), 600(a), 635(p)). Dr. Briggs believed 60% to 80% of non-Caucasians were lactase deficient and 5% to 10% of Caucasians.

85. An article in the record, *A Review of Dietary Lactose And Its Varied Utilization by Man* published in 1978 by Dr. Norton S. Rosensweig, Associate Professor of Medicine at Cornell University Medical College, contains a table with references to research studies showing the incidence of lactase deficiency or "hypolactasia" in various population groups (CX 244, Table 2). According to Dr.

Rosensweig's Table, lactase deficiency is present to the following degree in the following population groups: whites, 6% to 21%, Asians, 100%, blacks, 70% to 77%, and Mexican-Americans, 54%. [44]

86. Under any of the estimates, it is evident that a large number of people in California are lactase deficient. In 1970 California had a population of almost 20 million people (CX 694, Characteristics of the Population of California, U.S. Bureau of Census). Among these were 212,121 Japanese, 170,374 Chinese, 135,641 of Philippine origin, and 16,634 Koreans (CX 694(l) and (m)). The total of these persons of Asian origin amounts to 534,770, and there were Asians in smaller numbers from other countries such as Vietnam. There are in California, according to the 1970 census, approximately 1,397,138 blacks (CX 694(f)). Overall the non-white population of California in 1970 amounted to a total of 2,101,258 persons of all ages, approximately 1,890,635 being 5 years old or older. There were, moreover, in California 2,369,292 persons of Spanish origin or descent (CX 694(f)), the bulk of these coming from Mexico or whose parents came from that country. Additionally, large numbers of the remaining approximately 14,755,000 persons in California in 1970 clearly had non-northern European ancestry.

87. Application to these population figures of the percentages of various population groups which are lactase deficient as set out in the preceding findings readily establishes that at least several million people in California are lactase deficient.

Primary Lactase Deficiency, Milk Intolerance, and Milk Drinking

88. This proceeding is concerned with "symptoms" occurring in persons with primary lactase deficiency from the drinking of milk. It is not primarily concerned with reports in the scientific and medical literature of symptoms in lactase deficient persons resulting from the administration of the standard lactose tolerance test. Reports in the literature of the occurrence of "gas," "bloating," "cramps," "loose stools," or "diarrhea," following administration of the standard lactose tolerance test do not necessarily mean that such symptoms will occur in those who are lactose intolerant from the drinking of usual and moderate amounts of milk, that is, an 8 ounce glass or so at a time. The standard lactose tolerance test, used in many medical and scientific studies of lactose deficient subjects, is an abnormal situation (Dr. Briggs, Tr. 7246). In the standard lactose tolerance test, "very high doses of lactose are given, much larger than are normally present in the amounts of milk that people drink commonly at one sitting" (Dr. Latham, Tr. 9157). The standard

lactose tolerance test involves, as previously described, the administration of 50 grams of lactose to an adult, equivalent to that contained in more than a quart of milk (Dr. Paige, Tr. 1003–04; Dr. Kretchmer, Tr. 566; Dr. Briggs, Tr. 7348). In contrast, an 8 ounce glass of milk [45] contains about 12 grams of lactose and the lactose is mixed with proteins and fat, and other substances. Where symptoms do occur in lactase deficient persons from the ingestion of lactose, there is evidence that they tend to be fewer and milder where milk is consumed than where an equivalent amount of lactose present in the milk is ingested in water (see CX 507, "Comparison of whole milk and skim milk with aqueous lactose solution in lactose tolerance testing, "published in *The American Journal of Clinical Nutrition,* April 1973; Dr. Briggs, Tr. 8200–08; Dr. Paige, Tr. 1285–89). In the standard lactose tolerance test, moreover, the lactose is fed dissolved in water on an empty stomach after a fast (Dr. Kretchmer, Tr. 567). Experiencing symptoms during a lactose tolerance test, therefore, is not necessarily a diagnosis of milk intolerance, at least to milk in moderate amounts (Dr. Paige, Tr. 1053; Dr. Briggs, Tr. 6005, 6030, 7303, 8222; Dr. Kretchmer, Tr. 661–62; CX 595(b)).

89. Consistent with the preceding finding, a group of eminent scientists who make up the Protein Advisory Group and advise the World Health Organization, the Food and Agriculture Organization, UNICEF, the World Bank, UNESCO, and other United Nations agencies (Dr. Scrimshaw, Tr. 9830; Dr. Latham, Tr. 9148–49) in an official statement, *PAG Statement on how Lactase Activity and Milk Intolerance,* issued in 1972 said (CX 636(d)):

> An intolerance to lactose in the large amounts commonly used in load tests (50 g of lactose or more per m2 of body surface) which correspond in an adult to the consumption at one time of 1.0–1.5 liters of milk, gives no information on the existence of milk intolerance when the milk is consumed in moderate quantities.

This pronouncement was repeated in the official "UN Statement on Milk" issued in February 1972 (CX 636(f)).

Proportion of Lactase Deficient Person Having Symptoms from Drinking Milk and the Significance of Such Symptoms

Expert Opinion

Five experts gave their opinions of the proportion of lactase deficient persons experiencing symptoms from drinking milk in moderate amounts at a sitting, and their estimates of the signifi-

cance of such symptoms. The opinions of these experts are given below in the order in which they appeared in this proceeding. [46]

Dr. Norman Kretchmer

Dr. Kretchmer's curriculum vitae is in the record as CX 4004. Dr. Kretchmer was called by complaint counsel. He graduated from Cornell University in 1944 with a B.S. in animal Physiology. He continued his studies and obtained an M.S. in physiological chemistry from the University of Minnesota in 1945, a Ph.D., also in physiological chemistry, from Minnesota in 1947, and an M.D. from New York State College of Medicine in 1952.

From 1953 to 1959, Dr. Kretchmer was Assistant Professor, later Associate Professor of Pediatrics at Cornell University. He then became Professor of Pediatrics at Stanford University, a position which he held from 1959 to 1969. In this capacity he was in charge of the teaching program for medical students and pediatric services at Stanford Medical Center (Dr. Kretchmer, Tr. 362; CX 4004). In 1969 Dr. Kretchmer became Chief of the Division of Developmental Biology and Chairman of the Program in Human Biology at Stanford, acting in that capacity until 1972. Dr. Kretchmer continued as Professor of Pediatrics until 1974. Meanwhile, in 1970 Dr. Kretchmer accepted a post as Visiting Professor at the University of Lagos, Nigeria, where he performed research to determine the incidence of low lactase activity in tribal groups in relation to possible genetic mechanisms (Dr. Kretchmer, Tr. 415, 423; CX 499).

In 1974 Dr. Kretchmer moved to a position with the National Institutes of Health as Acting Director of the Institute on Aging. During Dr. Kretchmer's year as Acting Director of the Institute on Aging, he was also Director, National Institute of Child Health and Human Development, a position he currently holds.

Dr. Kretchmer holds memberships in a number of medical societies concerned with pediatrics, growth and development, biology and clinical nutrition. He is the current President of the American Pediatrics Society (Dr. Kretchmer, Tr. 357).

90. Dr. Kretchmer gave his estimate of the proportion of lactase deficient persons who would experience symptoms from drinking a glass of milk, making clear that his estimates were relatively "rough" (Tr. 417):

The only opinion I have — my opinion is based on work that we did with the American Indians, as well as literature. I am trying to think of the name of the fellow that did it, but I can't remember. I think — and I can't remember the exact figure, but it [47] seems to me that one glass of milk, which would be the equivalent to, say, 10 to 14

grams of lactose, within that range, there would be about 20 to 25 per cent of the people that would react with intolerance.

The work Dr. Kretchmer referred to with American Indians is in the record as CX 492 "Lactose Malabsorption Among the Pima Indians of Arizona." This study did not use milk as a testing substance. At Tr. 419, Dr. Kretchmer stated that he did not give the 25 percent as a "hard and fast" figure. At Tr. 816 Dr. Kretchmer recalled his testimony the previous day as "I guess I estimated somewhere between 12% and 25% for milk" as a basis for producing "signs and symptoms" among lactose malabsorbers. With respect to the significance of "signs and symptoms," Dr. Kretchmer gave a range from mild gas to diarrhea, but did not provide percentage estimates for lactose malabsorbers experiencing milk "signs or symptoms" or for those experiencing more significant manifestations (Tr. 400–20).

Dr. David M. Paige

Dr. Paige's curriculum vitae is in the record as CX 4005. Dr. Paige was called by complaint counsel. He is Assistant Professor of Pediatrics and Associate Professor of Maternal and Child Health, Johns Hopkins University. Dr. Paige obtained his B.S. in 1960 at Long Island University and his M.D. at New York Medical College in 1964. Following this, he did a pediatric internship and residency at the State University Downstate Medical Center of New York. During 1965–67, Dr. Paige served with the Public Health Service on a Navajo Indian reservation in Arizona, with clinical responsibilities for patients and for field medical problems such as tuberculosis control. He also had some responsibility for distribution of Department of Agriculture supplemental foods, including milk. As a result of his experience with the Public Health Service, Dr. Paige decided to obtain additional training in public health (Dr. Paige, Tr. 848).

Dr. Paige returned to school, attending Johns Hopkins University where he performed a second pediatric residency and obtained a Master's degree in Public Health in 1969 (Tr. 848; CX 4005). Since 1969 he has been a pediatrician at the Johns Hopkins Hospital. In 1972 Dr. Paige became Associate Professor of Maternal and Child Health and Assistant Professor of Pediatrics, positions which he currently holds (Dr. Paige, Tr. 842–43; CX 4005). At Johns Hopkins, Dr. Paige's current responsibilities are patient care, teaching and research. He has clinical responsibility for diagnosis, treatment and, when possible, preventive care of infant and child patients (Dr. Paige, Tr. 843–45). [48]

A number of medical researchers at Johns Hopkins have been

working for a considerable period in the lactase deficient, lactose intolerance area (see, for example, CX 405). These researchers have become known among those concerned with this subject as the "Johns Hopkins group." Dr. Paige became affiliated with this group and most of his research activities have been connected with lactose intolerance questions (Dr. Paige, Tr. 853–54; CX 4005(d)–(g)).

Dr. Paige holds memberships in a number of medical and nutritional associations (CX 4005). He also has acted as a consultant to the National Institutes of Health, the United States Department of Agriculture and the Congressional Office of Technology Assessment (Dr. Paige, Tr. 857–58, 1149–48; CX 4005).

91. In Dr. Paige's opinion "approximately 15 to 20 percent" of the U.S. population are lactase deficient, lactose malabsorbers (Tr. 934). Of these persons who are lactose malabsorbers, Dr. Paige estimated that virtually no children aged 1 to 5 would experience "signs or symptoms" from one glass of milk, that about 10% of 5 to 8 year olds, about 20% of 8 to 12 year olds, and about 33% to 40% of 12 to 18 year olds would have "signs or symptoms" from one glass of milk (Dr. Paige, Tr. 920). He estimated that 55% of all adult lactose malabsorbers would experience "signs or symptoms" from one glass of milk (Dr. Paige, Tr. 921). This testimony of Dr. Paige is substantially at variance with the results of the double-blind study, described later in this decision, conducted by him in 1975 and published in the *American Journal of Clinical Nutrition* in which he and his coworkers from Johns Hopkins Medical Institutions reported only about 13.5% of adult lactose malabsorbers to have symptoms with the consumption of 8 ounces of whole milk (CX 551(c)). The departure in his testimony from the results of this study lacked a convincing basis and was unpersuasive (Tr. 1171–72).

92. With respect to the foregoing percentage figures for "signs or symptoms" in various age groups, Dr. Paige was referring to "some gastric discomfort and gas maybe, at the most" (Tr. 1154), that is, "mild symptoms" (Tr. 1155). Dr. Paige did not attempt to quantify any proportion of lactose malabsorbers experiencing other than "mild symptoms."

Dr. Michael C. Latham

Dr. Michael C. Latham was called by respondents. Dr. Latham has achieved international recognition in the field of nutrition. His curriculum vitae is in the record as RX 1522. [49] He received his bachelor's degree in 1949 and his medical degree, equivalent to the "M.D." in the U.S., in 1952 at Trinity College, University of Dublin, Ireland (Dr. Latham, Tr. 9117–18; RX 1522). Following graduation,

Dr. Latham served a medical internship in England and performed his residency in internal medicine at the Methodist Hospital in Los Angeles. Dr. Latham also has a Diplomate in Tropical Medicine and Hygiene from the University of London and a Master's in Public Health from Harvard University (Dr. Latham, Tr. 9121–23; RX 1522(a)).

From 1954 to 1955 Dr. Latham was a senior physician at a major London hospital, and following this he became Medical Officer and later Medical Officer in Charge of the Nutrition Unit, Ministry of Health, Tanzania. There he was in charge of nutrition services for the entire country. He also taught at the medical school, engaged in nutrition research, advised the government and consulted with international agencies (Dr. Latham, Tr. 9120–21). While working in Tanzania, Dr. Latham administered relief measures during two major famines and helped to identify the country's major nutritional problems. At that time he was also involved in administering UNICEF's milk distribution program to malnourished children. For his work in Tanzania Dr. Latham received the Order of the British Empire from Queen Elizabeth II (Dr. Latham, Tr. 9123–26). His experience in Tanzania created Dr. Latham's later interest in milk research (Tr. 9143).

Following his experience in Tanzania, Dr. Latham was appointed a Research Fellow at Harvard University and later became Assistant Professor of Nutrition. While at Harvard, Dr. Latham directed a landmark study on diet and heart disease known as the "Boston-Ireland" study (Tr. 9122–23).

In 1968 Dr. Latham was appointed Professor of International Nutrition, Cornell University, Ithaca, New York, where he is also Director of the Program in International Nutrition. This program trains United States and foreign students in food and nutrition problems of low-income communities and countries. Cornell's program is the largest of its kind (Dr. Latham, Tr. 9127–30; RX 1735). At various times, Dr. Latham has advised international U.N. agencies, such as WHO (World Health Organization), FAO (Food and Agriculture Organization), UNICEF and, domestically, the Peace Corps on nutritional matters (Tr. 9138–39).

Dr. Latham was a leading participant in the committee of the United Nations Protein Advisory Group which developed a position paper on lactose intolerance in 1971–1972, described later in this decision. He wrote the major background paper considered by the group, which was an extensive [50] review of the literature on the subject (Dr. Latham, Tr. 9148, 9150, 9154–55; Dr. Scrimshaw, Tr. 9959; RX 308). Dr. Latham was also a participant in the National

Academy of Sciences committee which developed a position paper on lactose intolerance in 1972 (Dr. Latham, Tr. 9234; Dr. Scrimshaw, Tr. 9959).

Dr. Latham has been an active researcher on the practical significance of lactose intolerance in the United States. Among his contributions to the field have been investigations of the prevalence and severity of symptoms upon milk consumption (Dr. Latham, Tr. 9273–90; CX 600), a comparison of milk consumption in black and white children (Dr. Latham, Tr. 9300–04; CX 599), and research into lactose-reduced milk (Dr. Latham, Tr. 9369, 9377–83; CX 494). He has also investigated the relationship between milk consumption and lactose intolerance in the Tanzanian Masai tribe (Dr. Latham, Tr. 9338–49; RX 1736).

Dr. Latham has published extensively on many topics in the field of human nutrition in both developing countries and the United States (RX 1523). One of his publications is *Human Nutrition in Tropical Africa* (1965), which is now in its sixth printing (Dr. Latham, Tr. 9127). Another of his publications, the *Scope Manual on Nutrition,* of which he is senior author, is made available by a pharmaceutical firm to every medical student in the United States. The book was prepared because of Dr. Latham's concern about the general lack of nutrition training of physicians (Dr. Latham, Tr. 9244–50; RX 281). Dr. Latham is currently serving on the Editorial Board of the *American Journal of Clinical Nutrition* (Tr. 9259, 9443), is an Associate Editor of *Nutrition Reviews,* and is a member of many medical and nutritional associations (RX 1522).

Dr. Latham has acted as an advisor to various governmental bodies on public policy issues relative to nutrition. He was Vice Chairman of the panel of the 1969 White House Conference on Food, Nutrition and Health which dealt with the nutritional problems of groups for whom the Federal government has special responsibility, *e.g.,* American Indians, migrant workers, Eskimos, and Puerto Ricans (Dr. Latham, Tr. 9139). He was among three expert witnesses to testify at the opening session of hearings of the U.S. Senate Select Committee on Nutrition and Human Needs. He also was an invited witness at the "cereal hearings" of the United States Senate Subcommittee on the Consumer in 1970 (RX 1522(d)). Dr. Latham is a member of the Council on Children, Media and Merchandising, a group concerned with the impact of television advertising on child nutrition (RX 1522(d)). He has testified in various FTC proceedings as [51] an expert called by complaint counsel (for example, in *ITT-Continental Baking Co., Inc.,* "Hostess Twinkies," Dkt. 8860; Dr. Latham, Tr. 9130–31). Dr. Latham also testified in the FTC's

hearings on the proposed trade regulation rule on food advertising in 1976, when he presented opinions on various nutritional advertising issues, including lactose intolerance (Dr. Latham, Tr. 9131–32; CX 649).

Dr. Latham has authored or co-authored over 85 articles and research papers, including four books. Dr. Latham is an outstanding scientist, an authority in the field of human nutrition, and an expert of unparalleled qualifications on the subject of lactose intolerance and milk drinking. His testimony is entitled to great weight.

93. According to Dr. Latham 2% or at most 4% of the total population of the United States would experience symptoms of some sort from drinking one glass of milk (Tr. 9255). The number who would regard such symptoms as a deterrent to milk drinking in Dr. Latham's opinion would be between 1/2% and 1% (Tr. 9257). Dr. Latham based his opinion on the literature, the reports of other people's studies, on the work he and his colleagues had done, and on his experience in programs and other activities in the field of nutrition and milk consumption (Tr. 9257–58). Dr. Latham has kept up-to-date on all literature on the subject of lactose intolerance and the development of symptoms from milk drinking through Cornell University's computerized data retrieval system (Tr. 9258). Dr. Latham keeps familiar with unpublished or to-be-published studies through attending professional meetings and discussions with colleagues. Also, as a member of the Editorial Board of the *American Journal of Clinical Nutrition* and for certain other journals, he reviews submitted papers (Tr. 9259).

Dr. Nevin S. Scrimshaw

Dr. Scrimshaw, a member of the National Academy of Sciences and an authority of international standing in human nutrition, was called by respondents and has been described briefly earlier. His curriculum vitae is in the record as RX 1520. As in the case of Dr. Latham, Dr. Scrimshaw's qualifications are extraordinary. His opinions in the area of lactose intolerance and milk consumption are as authoritative as it is possible to obtain. They are entitled to great weight. Dr. Scrimshaw is a Phi Beta Kappa graduate in Zoology from Ohio Wesleyan University in 1937. He obtained a Masters degree in biology from Harvard in 1939, a Ph.D. [52] in physiology from Harvard in 1941, and an M.D. at the University of Rochester in 1945. He interned at Gorgas Hospital in the Panama Canal Zone, 1945–46. In 1959 he obtained a second Masters degree, this time in Public Health, specializing in epidemiology, also from Harvard (Dr. Scrimshaw, Tr. 9828–30; RX 1520). Dr. Scrimshaw has two honorary

doctorate degrees — in Public Service from Ohio Wesleyan University in 1961 and a Doctor of Science from the University of Rochester in 1974 (RX 1520).

During the 1950's Dr. Scrimshaw worked on questions relating to nutritional problems and issues applicable to Central America. He headed the Institute of Nutrition of Central America and served as a consultant in nutrition to the World Health Organization (Dr. Scrimshaw, Tr. 9829; RX 1520).

In 1961 Dr. Scrimshaw was appointed Professor of Human Nutrition at M.I.T. where he established a multidisciplinary department concerned with all major aspects of human nutrition (Dr. Scrimshaw, Tr. 9830, 9831; RX 1520). In 1976 he set up the M.I.T. International Nutrition Planning Program, a cooperative venture with the Departments of Political Science, Economics and Urban Studies and the anthropology group of the Humanities Department. About 200 graduate students are enrolled currently in the international program which is operated in close collaboration with the Center for International Health at Harvard. Dr. Scrimshaw is Director of the M.I.T. International Program and Co-Director of the joint MIT/Harvard program (Dr. Scrimshaw, Tr. 9831–32). He is also Director of the M.I.T. Clinical Research Center, which does inpatient and outpatient metabolic studies in nutrition (Dr. Scrimshaw, Tr. 9831–32; RX 1520).

Dr. Scrimshaw, as stated, is a member of the National Academy of Sciences. His distinguished career has included service on so many high-level policy making groups and advisory boards, both national and international, they cannot be cataloged in this decision. He has been particularly active in United Nations and World Health Organization work, especially in the fields of international nutrition and protein requirements in developing nations. See RX 1522. The Protein Advisory Group of the United Nations was established by Dr. Scrimshaw. The PAG originally advised WHO, but later became advisory also to UNICEF, UNESCO, the World Bank and other United Nations agencies (Dr. Scrimshaw, Tr. 9830). Under Dr. Scrimshaw's chairmanship (1970–73), the PAG formed a working group to evaluate the evidence on lactose intolerance in 1971 (Dr. Scrimshaw, Tr. 9830, 9846–58). The PAG issued a formal position paper on the subject in early 1972, already mentioned [53] (CX 636). Dr. Scrimshaw has worked extensively with the Food and Nutrition Board, the highest level advising group to the U.S. Government on questions of nutrition (Tr. 9833–34; RX 1520).

In 1972 during Dr. Scrimshaw's term as Chairman of the National Academy of Sciences' Committee on International Nutrition Pro-

grams, he appointed a Subcommittee to develop a position paper on lactose intolerance as it applies to the United States, particularly as it relates to milk promotion by government agencies (Dr. Scrimshaw, Tr. 9860–61). The National Academy's position paper was issued in May 1972 (CX 643), and is discussed later in this decision.

Dr. Scrimshaw has authored or co-authored 461 scientific and medical articles in the fields of nutrition and allied areas, public policy relative to nutritional questions, food planning, nutrition in relation to disease, and many other similar topics (see RX 1521). Dr. Scrimshaw has investigated the effect of milk consumption on lactose intolerant persons by means of "double-blind" studies which isolate symptoms truly due to milk drinking from psychosomatic or other responses (Dr. Scrimshaw, Tr. 9880–86, 9921–44; CX 463; RX 305–06, RX 1725).

94. Dr. Scrimshaw testified on the issue of the prevalence of milk intolerance and the statement of the United Nations Protein Advisory Group, as follows (Tr. 9852):

> * * * modest amounts of milk generally taken to be a glass, no more than a glass at a time, nor more than 240 cc's, would be unlikely to be a problem for most individuals. It was recognized that in the Oriental population with a loss of lactase activity [that] is sharper and more complete, that there would be some Oriental adults that, even with a glass of milk would experience symptoms but that they would speedily learn this, and avoid it as they learned, as we all learn to avoid foods that cause us problems.

Asked whether he would recommend that people found to be intolerant to 240 or 480 ml of milk, cease drinking milk, Dr. Scrimshaw testified (Tr. 9931): [54]

> On the contrary, I would continue to recommend milk as an integral part of a balanced diet and of a nutrition education program in the schools, recognizing that there would be an occasional individual who might experience discomfort with milk consumption.

In Dr. Scrimshaw's experience symptoms from milk drinking are of "low frequencies" and "very mild" (Tr. 9940). Dr. Scrimshaw based his opinion on his own studies at M.I.T., Dr. Latham's studies at Cornell University, and experience with milk feeding programs all over the world (Tr. 9946–47). In Dr. Scrimshaw's view, milk intolerance was "absolutely not" a public health problem (Tr. 9949).

Dr. George M. Briggs

Dr. Briggs has been mentioned earlier in this decision. His curriculum vitae is in the record as CX 4008. Although called by complaint counsel, Dr. Briggs, since early in its formation, acted as a consultant to the Milk Advisory Board with respect to nutritional or

other claims for milk contained in the Board's advertising. Dr. Briggs was on the witness stand for 11 days and he was questioned on virtually all issues in this proceeding.

Dr. Briggs, Ph.D., is Professor of Nutrition, Department of Nutritional Sciences and Associate Dean, College of Natural Resources, University of California, Berkeley. He is a nationally and internationally known nutritional scientist and educator. Dr. Briggs graduated from the University of Wisconsin in 1940 and continued his studies there receiving an M.S. in Biochemistry in 1941, and a doctorate in that field in 1944 (Tr. 5764). From Dr. Briggs' work came the discovery of Vitamin B-10, folic acid, which is indispensable in the human diet, and Vitamin B-11 (Tr. 7083-85; CX 4008). In 1945 he joined the University of Maryland where his work and those of his colleagues led to the discovery of Vitamin B-12, essential for building hemoglobin in the blood (Tr. 7086-87).

Between 1951 and 1958, Dr. Briggs was Chief of the Nutrition Unit, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health (Tr. 7093). From 1958 to 1960, Dr. Briggs was Executive Secretary of the Biochemistry Training Committee and Pharmacology Training Committee in the Division of General Medical Sciences of the [55] National Institutes of Health (CX 4008). In this capacity, he was responsible for administering Federal grants for supporting research in biochemistry, pharmacology, anesthesiology, toxicology and nutrition (Dr. Briggs, Tr. 7096).

In 1960 Dr. Briggs was appointed Chairman of the Department of Nutritional Sciences of the University of California, Berkeley, a position he held from 1960 until 1970 (Dr. Briggs, Tr. 7079, 7081) when he completed his term in the rotating chairmanship of the Department. Through the 1960's to date Dr. Briggs has been Professor of Nutrition (Tr. 7081; CX 4008) and has been engaged in the training of graduate students in that subject. In addition, he has been, and is presently, a biochemist in the Agricultural Experiment Station (Tr. 7978). One of his current research projects is the study of the interrelationships among calcium, vitamin D and lactose (Dr. Briggs, Tr. 7142).

Dr. Briggs has published more than 128 original articles in numerous scientific journals (CX 4009), and is the co-author of the most widely used textbook on nutrition in this country, *Nutrition and Physical Fitness,* now in its ninth edition (Dr. Briggs, Tr. 7131-32, 8115, 8117; CX 233, 4008; RX 415).

Dr. Briggs has served or presently serves on numerous high-level professional and governmental committees concerned with nutrition policy. He serves as an appointed member of the Food and Nutrition

Board Committee on Recommended Dietary Allowances (RDAs) of the National Academy of Sciences (Dr. Briggs, Tr. 7119, 8095; CX 4008).

Dr. Briggs has also held many positions on editorial boards of scientific journals, including *Nutrition Reviews,* 1954–58; *Journal of the American Dietetic Association,* 1963–66; *Journal of Nutrition,* 1962–67; and the *American Journal Clinical Nutrition,* 1975–77 (Dr. Briggs, Tr. 7138–39; CX 4008). He was also founder of the *Journal of Nutrition Education* and was its Executive Editor from 1968 to 1976 (Dr. Briggs, Tr. 7132). In these positions, Dr. Briggs has participated extensively in the peer review of scientific papers submitted to the journal (Tr. 7133–40). Dr. Briggs is also a member of numerous scientific organizations. In addition, Dr. Briggs has undertaken many public service assignments. These include lectures and talks at meetings and seminars for professionals and the public, consulting with both federal and state government agencies, testifying before Congressional hearings, writing consumer articles on nutrition for newspapers and magazines and appearing on radio and television (Dr. Briggs, Tr. 7090, 7139–42, 7494–95; RX 1513–14). [56]

Dr. Briggs was Chairman of the Panel on Nutrition Education of the 1969 White House Conference on Food, Nutrition and Health (Tr. 7495). He has testified on behalf of FTC attorneys as an expert witness in a number of proceedings (Coca-Cola Co., "Hi-C", Dkt. 8839 ITT-Continental, "Hostess-Twinkies," Dkt. 8860 and the TRR proceeding on Protein Supplements, Tr. 7160–63, see acknowledgement for Dr. Briggs help in *Protein Supplement Health Hazards and Marketing Deceptions: A Staff Report to the Federal Trade Commission,* August 8, 1975, at p. 3). Dr. Briggs was the first witness to be called by the FTC staff in the 1976 hearings on the proposed TRR proceeding on Food Advertising (RX 1819, 1862), and has been consulted by the staff in connection with the proposed TRR proceeding on Children's Advertising (Dr. Briggs, Tr. 7157–60).

Dr. Briggs is an outstanding scientist, a leading expert in the area of human nutrition, and a dedicated public servant. Although a consultant to the Milk Board, during 11 days on the witness stand, during which he was questioned from time to time by the law judge, Dr. Briggs displayed integrity and objectivity. Dr. Briggs has studied virtually everything in the medical and scientific literature on the subject of lactose intolerance and milk consumption. His knowledge of the subject is encyclopedic. His expert opinions are persuasive, credible, and carry great weight.

95. In Dr. Briggs' opinion only a small portion of the population cannot handle milk, amounting to "less than one percent" (Tr. 8239).

Dr. Briggs was unaware of "any significant numbers of people that have any problem with the lactose in an 8 ounce glass of milk" (Tr. 7303). In answer to a question whether he was aware of anyone having diarrhea from an 8 ounce glass of milk, Dr. Briggs stated "* * * Very, very few individuals, but so few that I would ignore them entirely in terms of the general population" (Tr. 7302).

Dr. Robert H. Herman

Dr. Herman was called by complaint counsel as a rebuttal witness. His curriculum vitae is in the record as CX 4010. Dr. Herman obtained his B.S. in biology at the Illinois Institute of Technology, Chicago, in 1949, and his M.D. in 1953 at the University of Illinois Medical School, Chicago. He interned at the Walter Reed General Hospital in Washington, D.C., from 1953 to 1954. From 1955 to 1959 Dr. Herman was [57] Chief of Medicine and Commanding Officer of the 43d Surgical Hospital in Korea. Following his tour of duty in Korea, he attended the Military Medicine and Allied Sciences Course in Washington, D.C., 1959–1960, and then worked in the Department of Metabolism at Walter Reed Army Medical Center for one and a half years (Dr. Herman, Tr. 12005).

In 1965 Dr. Herman became Chief of the Metabolic Division of the United States Army Medical Research and Nutrition Laboratory in Denver. This entire laboratory moved to the Letterman Army Institute of Research, San Francisco, in 1974, and currently Dr. Herman holds the position of Chief of the Department of Medicine. Dr. Herman's military rank is Colonel.

Dr. Herman is one of the consultants of the Surgeon General of the United States on metabolic disorders (CX 4010). Lactose intolerance and osteoporosis in Dr. Herman's view are metabolic disorders (Tr. 12002). Dr. Herman has been involved in research and discussions regarding the implications of lactase deficiency (Tr. 12433–46). Much of his research work has been directed toward the attempts to renew lactase activity once it has declined. Dr. Herman has had extensive clinical experience in diagnosing and treating numerous individuals, mainly adults, suffering from metabolic disorders.

In 1974 he attended the National Dairy Conference on lactose intolerance of which Dr. Scrimshaw was Chairman (CX 644(b)). Dr. Herman has been editor-in-chief of the *American Journal of Clinical Nutrition* from 1974 to the present. In this capacity, he has been involved in reviewing and approving for publication a number of articles on the subject of lactase deficiency.

96. In Dr. Herman's opinion approximately 50% of lactose malabsorbers would react with "signs or symptoms" upon the

ingestion of one glass of milk (Tr. 12046, 12053–54). He based this opinion on two review articles (CX 244, 246), his own personal experience as a milk-intolerant individual, and his experience with patients (Tr. 12047, 12052, 12054 and 12490). CX 244, "A Review of Dietary Lactose and Varied Utilization by Man," however, does not support Dr. Herman's opinion. Nowhere does this article provide any evidence that 50% of lactose malabsorbers will experience symptoms from 240 ml of milk. CX 246, "Lactase Deficiency: An Example of Dietary Evolution," published in *Current Anthropology* also fails to provide any percentage estimate of lactose malabsorbers who would react to an 8 ounce glass of milk. Dr. Herman's [58] personal experience with being lactose intolerant, and that of the patients he has seen, may not be representative of the total lactose malabsorbing population (see Tr. 12243–44). Study of his testimony fails to reveal an adequate scientific foundation for the percentage estimates Dr. Herman provided. From the study and observation of the law judge, the percentage estimates given by Dr. Herman while on the stand were essentially simply assertions based on personal views, rather than expert scientific opinion based on literature and scientific investigations.

Medical and Scientific Literature

The record contains much literature reporting on the incidence of symptoms among lactase deficient persons from drinking milk in varying amounts. Many of these articles, reports and studies were received in evidence for all purposes. Others were offered without an expert who could explain them or lay an adequate foundation for them, and were objected to by one side or the other. Many of these were admitted in evidence for a limited purpose, not for the truth of what was reported in them. The limited purpose of admission generally was on the issue of notice to respondents of medical questions relative to milk drinking by lactase deficient population groups when respondents were disseminating the challenged advertising. Where the transcript records an exhibit as being "received as information published in an authoritative and reliable medical journal on the date indicated and available to a researcher," or received as coming "to the attention of Dr. Briggs about the time it was published. . .and is part of the sum total of information which Dr. Briggs had in his possession during the time he reviewed the advertising of the Milk Board," the exhibit was received on the "notice issue" but *not* as evidence of the truth of statements or reports therein (see, *e.g.,* Tr. 6966, Tr. 5998; see also "Joint Statement

of Exhibits Received in Evidence and Reference to All Rulings Regarding Each Such Subject" filed January 29, 1979).

97. In connection with articles and studies reporting symptoms from milk consumption, it must be emphasized that the existence of symptoms is largely a subjective matter. In one of Dr. Latham's studies published in the *American Journal of Clinical Nutrition,* he and his co-researchers reported that there was a difficulty dealing with such subjective responses (CX 494(c)). Since some of the test subjects in this study reported that flatulence was a normal, everyday occurrence, it was difficult for Dr. Latham and his co-researchers to know in the test they were conducting whether that condition was in truth due to milk ingestion. Dr. Latham and his co-workers commented (CX 494(f)): [59]

* * * it was found that slightly over half of all subjects developed some symptoms, usually mild, from the consumption of a placebo. This must lead to certain doubts about the results of certain other studies where the subjects were aware of the possibility of symptoms resulting from lactose consumption but where placebos were not used.

Further, as Dr. Scrimshaw established, probing by researchers about the presence of symptoms undoubtedly has the capacity to cause test subjects to "come-up" with symptoms (RX 305, 306).

98. To be certain of the true existence of symptoms, particularly milder symptoms, blind or double-blind studies or other techniques to conceal the identity of the substance being given to test subjects, are imperative (Dr. Scrimshaw, Tr. 9910–12, 9917; Dr. Briggs, Tr. 8267; see also Dr. Kretchmer, Tr. 638–39; RX 305, 306, RX 1725). The work of Dr. Scrimshaw and his colleagues at M.I.T. established the unreliability of reports of symptoms when test subjects are able to identify what they are ingesting, and when they know or can devine that researchers are looking for the presence of symptoms. Dr. Scrimshaw testified on this subject with complete validity, in the opinion of the undersigned, as follows (Tr. 9911):

* * * if individuals have any reason to suspect that the material which they are testing will cause adverse symptoms of some kind, the chances of symptoms which we all have every day being interpreted as due to that material are quite great. We all have times when we feel bloating, we have gas, we may have some intestinal pain from gas, we may have days with loose stools. If you follow any group of subjects for a period of 30 days just on their normal diet and you really quiz them carefully on symptoms, you will get lots of symptoms. So the danger is that when you do a feeding study these irrelevant symptoms get attributed to the material. Only if the individual realizes that there is no way of knowing whether he is getting the material or not getting the material do you approach something that is a more proper trial. [60]

99. Two reliable and persuasive double-blind studies have recent-

ly been performed by Dr. Scrimshaw and colleagues at the Massachusetts Institute of Technology on the "Comparative Tolerance of Adolescents of Differing Ethnic Backgrounds of Lactose-Containing and Lactose-Free Milk" (RX 305, 306). The first was "Initial Experience with a Double-Blind Procedure" (RX 305) and the second was "Improvement of a Double-Blind Test" (RX 306). Both have been reviewed and accepted for publication in the *American Journal of Clinical Nutrition* (Dr. Scrimshaw, Tr. 9883–84, 10038, with minor revisions for publication RX 1739 and 1740 are the same as RX 305 and 306; see Tr. 10040–48). Both studies were performed on healthy adolescent subjects, 14 to 19 years old, of varying racial backgrounds (Dr. Scrimshaw, Tr. 9901–93; RX 305(e), 306(d)).

Chocolate flavored milk was used for test purposes to ensure a double-blind study in which lactose was the only variable (RX 305(f)). Some flavoring must be added to disguise the difference in taste between lactose-free and lactose-containing milk (Dr. Scrimshaw, Tr. 9887). All subjects were studied for tolerance to one glass and to two glasses of lactose-containing and lactose-free chocolate milk test beverages, given double-blind fashion in random order on four consecutive days (Dr. Scrimshaw, Tr. 9901–03; RX 305(f), 306(f)).

In the first study (RX 305(e)) among the 110 test subjects "58 were black, 44 were white and 8 were of Latin-American descent." The subjects reported symptoms, if any, on questionnaries. The first study emphasized the possibility of symptoms and urged complete reporting (Dr. Scrimshaw, Tr. 9882, 9902; RX 305(f)). In the second study (RX 306) the questioning about symptoms was handled more casually on the premise that "an overly aggressive approach will give rise to a great number of false positive responses," *i.e.,* test subjects "coming up" with symptoms when none were really present (Dr. Scrimshaw, Tr. 9882; RX 306(i)).

Out of the 110 subjects in the first study (RX 305), 67 were lactase deficient (RX 305(n)). Thirty of these lactase deficient subjects reported no symptoms at all after any milk. Four reported symptoms after lactose-free milk, ten reported symptoms after both lactose free and lactose containing milk, and seven reported symptoms after 240 ml, but not after 480 ml of lactose-containing milk. Because such paradoxical responses raised questions as to the actual existence of "symptoms" or, if symptoms were actually experienced, the cause thereof, the researchers turned to the remaining 16 test subjects who were considered "potential examples of milk intolerance due to lactose malabsorption" (RX 305(g)). Of these "only three reported symptoms on days on which 240 or 480 ml of lactose containing milk was given. The study concluded (RX 305(h)): [61]

* * * the apparent prevalence of milk intolerance secondary to lactose malabsorption would be 5% (3/67) after 240 ml and 24% (16/67) after 480 ml of LC milk.

The study further concluded that "it must be assumed that some individuals reported symptoms due to factors other than lactose; these might be of psychosomatic origin." According to Dr. Scrimshaw since a number of the lactose malabsorbers reported symptoms after consuming both lactose-free and lactose-containing milk, the symptoms were probably reported only because the subjects were stimulated by the researcher to "come up" with symptoms (Dr. Scrimshaw, Tr. 9930–34). The study reported (RX 305(i)):

The true prevalence of milk intolerance secondary to lactose malabsorption cannot be determined in any way except through randomized 'double-blind' studies.

See also Dr. Kretchmer, Tr. 638–40. This study has been accepted for publication, as stated, in the *American Journal of Clinical Nutrition.* The fact that it had not been published at the time offered in evidence has no bearing on the reliability of the results. Chocolate milk was used because without disguising the difference between lactose-free and lactose containing milk, a double-blind study is impossible (RX 1739(j)); Dr. Scrimshaw, Tr. 9887; see also Dr. Latham, Tr. 9459). The use of chocolate milk theoretically could have affected the results of this study (RX 1739(j)), but there is no credible evidence that this was the case. Dr. Paige's suggestion to this effect was not persuasive, being essentially a conjecture (Tr. 1087). Chocolate flavored milk, in fact, could have increased the incidence of symptoms (see RX 1725(l)).

100. In the second M.I.T. study (RX 306), there were 45 lactose malabsorbers (RX 306(f) and (o)). Twenty-nine, about 64% reported no symptoms throughout the test with either the lactose-free or the lactose containing milks, in contrast to 45% in the first study (RX 305(g)). The substantially lower frequency of symptoms was attributed by Dr. Scrimshaw to the more casual way in which the existence of alleged symptoms was elicited (Tr. 9933–34). No statistically significant differences were found in the incidence of symptoms reported by malabsorbers and absorbers after drinking 240 ml of either lactose-free or lactose-containing milk (RX 306(b)). According to the study it did not appear that any of the 45 lactase deficient test subjects had symptoms due to the lactose in 240 ml of milk although 16% of them apparently reacted to the [62] lactose in 480 ml of milk (RX 306(b)). The symptoms in both of the foregoing studies at M.I.T. were mild, there were no severe symptoms (Dr. Scrimshaw, Tr. 9931). The report concluded that lactose-malabsorbing individuals between the ages of 14 and 19 can tolerate moderate amounts of milk without

experiencing any discomfort that can be identified as resulting from lactose malabsorption. The study further concluded (RX 306(h)):

* * * we find that even after 480 ml milk, the nature and severity of symptoms reported by lactose malabsorbers rarely warranted serious consideration.

101. In another "double-blind" study conducted at M.I.T. under Dr. Scrimshaw's supervision in 1978, three of 24 lactase deficient test subjects had symptoms with 480 ml of milk and two presumably had symptoms, about 21% (RX 1737). Only three out of 24 of the lactase deficient had symptoms with the lactose of one glass of milk, about 12.5% (Dr. Scrimshaw, Tr. 9938, 9982–83; RX 1737(w), RX 1738(f)). According to Dr. Scrimshaw the symptoms were very mild (Tr. 9909, 9940–41, 9884–86).

102. A recent study for publication in a scientific journal dealing with geriatrics has been completed by Dr. Scrimshaw and another researcher at M.I.T. (RX 1725). The test subjects were 87 elderly with a mean age of 77 years, 23 of whom were lactase deficient. A chocolate-flavored dairy drink either containing lactose or being lactose free was served under double-blind conditions with a light lactose free meal (RX 1725(f)). On the following morning the test subjects were interviewed as to the occurrence of any symptoms. The researchers concluded that the amount of lactose in a single glass of milk was insufficient to cause an "identifiable" gastrointestinal response in a controlled double-blind study with these test subjects (RX 1725(k)). The study concluded with the statement (RX 1725(n)):

Our results suggest that, under normal circumstances, the 11–12gm of lactose in a single glass of white milk would not lead to serious symptoms in a large majority of elderly lactose malabsorbers.

103. In a comprehensive and reliable study using placebos, entitled "Lactose Intolerance and Milk Intolerance in Healthy Adults and Children: Practical Implications and Methodological Approaches," prepared at Cornell University in 1973 under the direction of Dr. Latham, the practical [63] implications of lactose deficiency for milk drinking were examined (RX 1723; Dr. Latham, Tr. 9360–61). Thirty-five adults were studied, 19 tolerant and 16 intolerant to lactose (RX 1723(z)(38)). Subjects ingested varying amounts of lactose in water, lactose as milk, and placebos, once a week for 10 weeks. Subjects recorded any symptoms experienced for eight hours following ingestion of the lactose or milk and rated each symptom as mild, moderate or severe. Subjects were also asked whether, if discomfort was experienced, such would prevent them from drinking milk in the future if they found that drinking normal

amounts of milk caused the same symptoms (RX 1723 (z–17), (z–18)). According to Dr. Latham (Tr. 9363):

The conclusion in a nutshell from that study was the people that are malabsorbers, in our study all of them could drink useful quantities of milk. All of them could drink at least one cup of milk, fasting on one occasion *with no symptoms or with mild symptoms.* (Emphasis added).

The Study reported (RX 1723 (z–160)):

* * * it appears from our sample that most intolerant adults can consume at least 15–30 g lactose, both in water and as milk, without experiencing severe symptoms. In this study, 9 of the 16 intolerant adults consumed either 15 or 30 g lactose in water, and 13 of the [16] consumed either 15 or 30 g lactose as milk while fasting with either 0 or only 1–2 mild symptoms occurring. Although the severity of symptoms depended on each individual's subjective rating, 14 of the 16 intolerant subjects reported they would not stop regular milk drinking due to the severity of symptoms . . .

The report further stated (RX 1723 (z–163)):

* * * The majority of our intolerant subjects could consume 2 1/2 cups of milk containing 30 g of lactose, and suffer no symptoms whatsoever. [64]

104. Based upon the preceding study an article was published in March 1974 in *The American Journal of Clinical Nutrition* "Lactose intolerance and milk consumption: the relation of tolerance to symptoms." The article reported (CX 600(c)):

When intolerant subjects were given milk, 13 of 15 subjects (86%) ingested either 15 g lactose (1.25 cups milk) or 30 g lactose (2.5 cups milk) with two or fewer mild symptoms. * * * Twenty-seven percent of 15 intolerant subjects reported no symptoms at all, 28% reported mild gas only, and 20% reported mild gas and mild bloating. Eighty-six percent reported they would not stop drinking milk regularly with an equivalent degree of discomfort.

The paper concluded with the following (CX 600(g)):

* * * it was found that lactose-intolerant subjects can consume nutritionally useful quantities of milk without undue symptoms developing.

105. In an article in the *American Journal of Clinical Nutrition* in August 1975 on "Lactose Hydrolyzed Milk" researchers from Johns Hopkins Medical Institutions, including Dr. Paige who testified in this proceeding, using "double-blind" techniques, found that only 3 of 22 healthy black teenagers, about 13%, experienced symptoms of any kind from ingestion of 8 ounces of "untreated whole milk" (CX 551). The significance of the symptoms reported by the study was not stated; failure to comment on this aspect suggests that the symptoms were probably mild (See Dr. Latham, Tr. 9373). Symptoms were also reported by 3 of the lactase deficient teenagers

on drinking the 90% hydrolyzed milk which contained only 1.2 g of lactose (CX 551(c), indicating the problem with subjective assessment of symptoms and un-blind tests. According to this study the following "double-blind" methodology was used (CX 551(b)):

> The subjects were given the 8 ounces of test milk, coded and unidentified. The technician and interviewer as well as the subjects were unaware of which milk was being tested. At the conclusion of the study, the code was revealed, tolerant and intolerant subjects identified and all data on each subject collated. [65]

106. An article was published in 1978 "Intestinal Lactase Deficiency and Milk Drinking Capacity in the Adult" by researchers of the Instituto Nacional de la Nutricion, Mexico (CX 685). This appeared in the *American Journal of Nutrition.* In this study, different amounts of milk were given to a group of normal adults to determine their milk tolerance and to correlate it with their intestinal lactase activity as judged by a lactose tolerance test (CX 685(a)). Each subject, after overnight fasting, was given on 4 consecutive days the following amounts of milk: 250 ml (day 1), 500 ml (day 2), 750 ml (day 3), and 1000 ml (day 4). Out of 121 lactase deficient test subjects, 14.5% had symptoms of some sort following ingestion of 250 ml of milk (CX 685(d), 685(b), Table 1; Dr. Latham, Tr. 9446). The study indicated that 85% to 86% of lactase deficient persons could drink an 8 ounce glass of milk without any symptoms and 72% could drink two 8 ounce glasses of milk with at most symptoms classified by subjects as mild (CX 685(b)). The author contrasted the results of this study showing only 14.5% of lactase deficient persons having symptoms from 240 ml of milk with the higher percentages produced by some of the studies of the so-called Johns Hopkins group, noting that the differences were hard to explain but perhaps not too surprising "when dealing with subjective responses to a given agent in different populations" (CX 685(d); see CX 417, mentioned later). The results of this study are very similar to the results obtained by Dr. Paige of Johns Hopkins, described in the preceding finding, where only 3 of 22 lactose malabsorbers were reported to have had symptoms of any kind from ingestion of 240 ml of milk (about 14%).

107. There are other apparently reliable studies in the literature which report higher figures for the incidence of symptoms from milk consumption. Results of a recent study in Mexico were reported in an issue of *Gastroenterology* published in 1978 (CX 668). The study was designed as "double-blind", although there is some question whether this was true in reality (Dr. Latham, Tr. 9441–42). The purpose was to determine whether lactase deficient persons were also milk

intolerant and, if so, the amount of milk they must ingest to produce symptoms. Each of 150 adult test subjects, 97 of whom were lactase deficient, received 250 ml of a different type of milk on 3 consecutive days. Milk A contained no lactose, Milk B had 12.5 gm, and Milk C contained 37.5 gm of lactose. In the 97 lactase deficient test subjects, ingestion of 250 ml of the reconstituted powdered whole milk containing 12.5 g of lactose, produced no symptoms in 61 but did produce symptoms of some kind in the balance of 36, about [66] 37% (Dr. Latham, Tr. 9435–36; CX 668(b), Table 1). Twenty of the 36 had mild symptoms and 16 had what were classified as severe symptoms (CX 668(b), Table 1). Ninety-seven percent of those with mild symptoms and 10% of those with "severe" symptoms, did not feel such symptoms would prevent continued milk drinking. The study noted the difference in results from an earlier study by the authors, described in the preceding finding, where only 14.5% of lactase deficient persons were determined to have symptoms from consumption of 240 ml of milk. The study commented that the conclusions relative to symptoms might not apply to "populations with different ages or socioeconomic levels in Mexico or elsewhere in the world," noting the "variability of symptoms in [lactase] deficient subjects" and the need to study "each individual population" (CX 668(b)). A significant number of these test subjects may not have been accustomed to milk drinking (Dr. Scrimshaw, Tr. 10014–17), hence this study is of questionable validity for estimating the prevalance of symptoms in a U.S. population.

108. In an article in the *American Journal of Clinical Nutrition* in June 1976 "Symptom Response to lactose-reduced milk in lactose-intolerant adults," researchers including Dr. Latham stated that 5 out of 16, about 30% lactase deficient test subjects reported symptoms from ingesting 2.5 cups of lactose-reduced milk which contained 7.5 gm lactose (CX 494, Table 3). The symptoms reported were rated by the test subjects with a composite score of about 2 on a scale of 12 indicating that the symptoms were very mild (Table 3). Twelve out of the 16 reported symptoms from 2.5 cups of lactose-reduced milk which contained 15 gm lactose (CX 494, Table 3). The symptoms, again, were very mild. The symptoms were obtained "from the subjects own rating of the presence and severity of four symptoms" "bloating, gas, abdominal cramps, and diarrhea" (CX 494(b), Part 1), all of which were to be treated the same for rating purposes. Out of 17 lactase deficient subjects, especially sensitive to lactose (Dr. Latham, Tr. 9385), 15 reported mild to moderate symptoms from 500 ml whole milk (Dr. Latham, Tr. 9378–87; CX 494, Table 4). These quantities of milk were used in this research project

by Dr. Latham because he and his co-researchers could not "get adequate symptoms" with smaller quantities of milk and the study needed symptoms to compare with the lactose reduced milk (Dr. Latham, Tr. 9387). With respect to conclusions respecting symptoms from reports of test subjects, the study stated (CX 494(c)):

> Symptomatic response usually has to be based on a subjective evaluation, and therefore there must be reservations concerning the interpretation and quantification of these data.

[67] In the "Discussion" section, as already described, the study noted in connection with symptom recording that there was "difficulty dealing with subjective responses" (CX 494(e)), observing further that there were several test subjects "who reported that flatulence was a normal, everyday occurrence," *i.e.,* regardless of milk consumption, making it difficult to judge "whether mild gas was actually a response to lactose in milk." Dr. Latham did not believe that the results of this study could be projected to the population as a whole (Tr. 9389).

109. The following articles and studies, in the opinion of the undersigned, have little or no probative value on the incidence and significance of symptoms from the consumption of milk.

CX 458 - This was one of the earliest articles reporting symptoms from milk ingestion. It appeared in 1965 in *Gastroenterology,* a technical medical journal. With the title "Intestinal Lactase Deficit in Adults," the study reported on tests conducted on 12 lactase deficient patients obtained "from the Gastroenterology Section at the Hines VA Hospital" (CX 458(a)). All of the subjects were hospitalized for serious illnesses, such as irritable colon, alcoholism, osteoporosis, duodenal ulcer, cirrhosis, diabetes, and obesity. Reports of symptoms were not based on tests but upon anecdotal accounts of patients, a method well known to be scientifically unreliable. The possibility of "secondary lactose intolerance" resulting from disease also was not ruled out in this study. In view of the serious diseases present over an apparently long period of time in these test subjects, furthermore, a question arises whether the symptoms they reported were really due to milk. As a result of these factors, this study is considered to have little reliability for purposes of this case (see Dr. Scrimshaw, Tr. 9956–57; see also, Dr. Speckman, Tr. 10956–57).

CX 405 - This was a widely circulated article published in 1966 in the *Journal of the American Medical Associaton* "A Racial Difference in the Incidence of Lastase Deficiency." Researchers affiliated with Johns Hopkins University School of Medicine reported on a study of 40 male prisoners who were volunteers from the Maryland

State House of Correction, "20 consecutive whites and 20 consecutive negroes." Eighteen of the 20 Negro test subjects were reported to have experienced symptoms from a lactose tolerance test in which 50 gm of lactose per square meter of body surface was administered at one time, the average dose being 91 gm "the [68] amount of lactose contained in approximately 1 3/4 quarts of milk" (CX 405(a)). This study is not reliable for purposes of this case because no tests were done with milk. The existence of symptoms from milk drinking and their significance stated in this article were anecdotal only, being based upon what the authors gathered the test subjects experienced from milk drinking. According to the article, the majority of the subjects reporting symptoms from milk drinking stated that they liked milk and had learned to limit their intake to around a glass at a meal (CX 405(b)). Symptoms from milk drinking were reported not "clinically significant" (CX 405(e)).

CX 683 - This was an article in the *New England Journal of Medicine* in 1967 "Osteoporosis, Intestinal Lactase Deficiency and Low Dietary Calcium Intake." The authors reported that in 5 elderly lactase deficient patients with osteoporosis, 15 gm of lactose, administered in a program to determine if lactase activity could be increased, had to be reduced to 7.5 gm because of severe symptoms. No additional data on this aspect or on the nature of the symptoms were supplied. The report, in a somewhat paradoxical additional statement, referred to another study for the assertion that "Negro lactase-deficient subjects tolerated up to 150 gm of lactose daily [the amount in 3 quarts of milk] within two or three weeks of the start of feedings" (CX 683(c)). The numbers in this study were extremely small and details are absent. The study has little value on the issue of the prevalence and significance of symptoms from milk drinking.

CX 489 - This article "Milk and Lactose Intolerance in Healthy Orientals" appeared in *Science* in February 1968. In this article the author of CX 405 and another researcher from Johns Hopkins reported on a study of twenty healthy Oriental adults living in the United States. Out of the 20, 19 were reported to have "had abdominal bloating, flatulence and diarrhea" after ingesting on an empty stomach a 50 gm dose of lactose in water. No tests were performed with milk. The symptoms and their significance reported to arise from milk drinking, as in CX 405, were purely anecdotal, being simply reports of what the authors gleaned from talking to the subjects.

CX 480 - This was an article in the *Scandinavian Journal of Gastroenterology* in 1969 "Specific Small-Intestinal Lactase Deficiency in Adults." According to this article, 11 of 18 lactase-deficient

persons hospitalized with a variety of serious gastro-intestinal disorders reported to the authors that they had symptoms on consuming one glass or less of milk (CX 480(e), Table II). As stated previously, where test subjects are [69] afflicted with severe gastrointestinal disorders or other diseases, the direct correlation of milk consumption with symptoms is questionable. Again, anecdotal reports of this kind are not considered to be scientifically reliable.

CX 417 - This was as study published in the *New England Journal of Medicine* in May 1975 "Lactose and Milk Intolerance: Clinical Implications." A number of investigators from Johns Hopkins, including Dr. Paige who testified in this proceeding, sought to examine the clinical importance of tolerance-test-determined "lactose intolerance." Subjects were male patients at the Veterans Administration Hospital at Perry Point, Maryland. The study reported that 240 ml of low-fat milk (about 8 oz.) caused mild symptoms "mild discomfort, cramping, gas, flatulence or some distention" in 26 of 44 lactose intolerant subjects (CX 417(c); see also Dr. Latham, Tr. 9449-56; Dr. Briggs, Tr. 8314-16; Tr. 9464, 9725). This study, however, was not "double-blind," nor were placebos used and to this extent it is unreliable. In a study published by Dr. Paige only three months later which did use "double-blind" techniques, he found that only 3 of 22 lactase deficient test subjects experienced symptoms from 8 ounces of whole milk, about 14% (CX 551, previously described). In CX 417, the test subjects were given either an unidentified test sugar or low-fat milk. It seems obvious that they were able to recognize the low-fat milk when it was administered as the test substance. The study, therefore, leaves doubt of the credence to be accorded the reports of symptoms due to milk. As in many of the studies, furthermore, the symptoms were assessed and reported by the test subjects themselves and to this extent constituted a subjective evaluation. "Diarrhea" was not defined. Subjects may have reported looser-than-normal bowel movements as "diarrhea." Finally, the test subjects were hospitalized for various illnesses with possible bearing upon the test results (see Dr. Latham, Tr. 9453-56).

CX 521 - This is another study by the "Johns Hopkins" group, including Dr. Paige. It was published in the November 1975 issue of *Pediatrics* and reported on "Intolerance of Eight Ounces of Milk in Healthy Lactose-Intolerant Teen-Agers" (CX 521). The objective of this study was "to determine if subjects who are intolerant of a standard lactose tolerance test (50 gm of lactose) are aware of any symptoms with 8 ounces of milk and with physiologic amounts of lactose, such as 12 gm, which would be equivalent to the lactose found in 8 ounces of milk" (CX 521(a)). Thirty-three black adoles-

cents from the lowest socioeconomic decile of Baltimore were the study subjects. Of these, 13 were lactose intolerant (Dr. Paige, Tr. 1160-66; CX 521(c)). Subjects received 8 oz. of milk or [70] an unidentified test sugar on separate occasions and were questioned thereafter by an observer. As noted in the case of the preceding study, a solution of "test sugar" is readily distinguishable from milk (Dr. Latham, Tr. 9459). The test subjects obviously knew when they were being given milk and when the test sugar. Symptoms were stated to have been reported by 7 of 13 lactase deficient subjects. The symptoms reported, "bloating," "cramps" and "loose stools," were wholly subjective, being dependent on what the teenager reported to the observer. Again, this study is in strong contrast to Dr. Paige's results when he used a double-blind methodology, only 3 of 22 reporting symptoms. It may be noted that all teenagers except one intended to continue drinking milk notwithstanding the "symptoms."

CX 463 - This was a study conducted on children 9 years old or younger. It is considered of little probative value for this proceeding because in children that young the lactase level may not have yet declined fully in those destined to be lactase deficient. As a consequence, failure to experience symptoms is not a true indication of the proportion experiencing symptoms from milk consumption.

CX 525 - This was an article in *Gastroenterology* published in 1966. Four of 7 lactase deficient adults were reported to be symptomatic when "challenged with 1 to 3 glasses of milk" (CX 525(e)). How many of the 4 were challenged with 3 glasses of milk is not stated. The number of test subjects, furthermore, is too small to be accorded any significance in this proceeding.

110. There is no question on this record that there are numbers of lactase deficient persons who experience symptoms from drinking milk in moderate amounts at a time. The question is the proportion having symptoms, and the question thereafter is the significance of the symptoms. The preponderance of the evidence establishes that the bulk of lactase deficient persons can consume an 8 ounce glass of milk at one sitting without symptoms. Although the evidence is in conflict and a scientific concensus must await further work, the undersigned has concluded after weighing all of the studies and the testimony of the expert witnesses, that the preponderance of the evidence establishes that the incidence of symptoms of any kind following the consumption of an 8 ounce glass of milk is probably in the range of 5% to 15% of lactase deficient, lactose malabsorbers.

111. The preponderance of the evidence further establishes that in the great majority of lactase deficient persons who experience

symptoms from the ingestion of 240 ml of milk, the [71] symptoms are mild to totally insignificant. The proportion of those experiencing other than mild or insignificant symptoms from 240 ml of milk is probably only 15% of those experiencing symptoms of any kind, and even in these the symptoms are not medically of consequence. They have no effect whatever on health. Of course, the more milk that is consumed at a sitting, the more significant symptoms are likely to be in those experiencing them. But at the 8 ounce level of consumption, few healthy adults in the United States who are lactase deficient will have symptoms of any degree of significance or troublesomeness. The symptoms experienced can validly be likened to those experienced by many persons when certain foods containing complex carbohydrates such as beans are consumed (Dr. Paige, Tr. 1122-23; Dr. Briggs, Tr. 7930).

Milk Allergy

Paragraph Nine of the complaint alleges that the advertising of respondents was false because the consumption of milk is detrimental to persons suffering from milk allergy. In support of this allegation, complaint counsel called Dr. Oscar Lionel Frick and Dr. Herbert S. Kaufman, and elicited testimony on this subject from Drs. Kretchmer and Paige whose qualifications have been stated. Respondents called Dr. Charles D. May and Dr. Abba I. Terr for expert testimony on the allergy question.

Dr. Herbert S. Kaufman

Dr. Kaufman is a medical doctor specializing in the field of allergy and immunology and engaged in private practice in San Francisco since approximately 1966 (Dr. Kaufman, Tr. 3243). His curriculum vitae is in the record as CX 4003. Dr. Kaufman obtained his degree from Baylor Medical School in 1961 and completed a joint residency at Washington University in St. Louis, Missouri, and at Baylor Medical School in Houston, Texas (Dr. Kaufman, Tr. 3248; CX 4003). Dr. Kaufman's practice is that of a consultant in allergy and immunology (Dr. Kaufman, Tr. 3249). He sees patients referred by other physicians who have made a tenative diagnosis of allergy. Approximately 90% of Dr. Kaufman's patients are referred to him in this manner (Dr. Kaufman, Tr. 3324-25). Dr. Kaufman is a member of the American Academy of Allergy, the American College of Allergy, the American Academy of Pediatrics and is a diplomate of the American Board of Allergy and Immunology (CX 4003). Dr. Kaufman has been director of the Allergy and Immunology clinic at

Childrens Hospital in San Francisco, Chief of the Pediatric Allergy Clinic at Presbyterian Medical Center in San Francisco, [72] and is presently a lecturer in Allergy and Immunology at Mt. Zion Hospital in San Francisco (CX 4003).

Dr. Oscar L. Frick

Dr. Frick is a medical doctor and possesses a Ph.D. in microbiology. His curriculum vitae is in the record as CX 4002. He obtained his medical degree from Cornell Medical School in 1946 and completed his residency at the Children's Hospital in Buffalo, New York. After several years of private practice in pediatrics, Dr. Frick became interested in allergies and pursued further training in that specialty, receiving a Ph.D. in medical microbiology from Stanford University in 1964 (Dr. Frick, Tr. 4582). He then joined the staff of the University of California Medical Center at San Francisco where he is currently Professor of Pediatrics and Director of the allergy and immunology training program. Dr. Frick is a member of many professional societies and has written a number of technical articles in the field of allergy (CX 4002). He has been co-chairman of the American Board of Allergy and Immunology and was one of the founding members of the Board. Dr. Frick was President of the American Academy of Allergy in 1971 (CX 4002(b)). He has served on the Editorial Board of the *Journal of Allergy* (Tr. 4585). Dr. Frick's clinical experience in the diagnosis and treatment of allergy extends from his practice as a pediatrician commencing in 1951 to date. He continues to see patients as a member of the University of California hospital staff, and privately (Tr. 4583). He has conducted research in the field (Tr. 4583) which has been published (CX 4002), and Dr. Frick has authored chapters in various medical textbooks dealing with allergy.

Dr. Charles D. May

Dr. Charles D. May is Professor of Pediatrics at the University of Colorado Medical School, Senior Physician in the Division of Pediatric Allergy and Clinical Director of Inpatient Services at the National Jewish Hospital and Research Center in Denver, Colorado (Dr. May, Tr. 10063; RX 1525). His curriculum vitae is in the record as RX 1525. Dr. May obtained his degree from Harvard Medical School in 1935, completed his residency at Children's Hospital in Boston in 1937 and then served as a Commonwealth Fund Fellow in the Department of Organic Chemistry at Harvard. In 1941 he joined the Harvard Medical School as an instructor in pediatrics. With the outbreak of war, Dr. May joined the Army and served as Chief,

Medical Service, 5th General Hospital, [73] spending four years overseas. In 1946 he returned to Harvard as an assistant professor. In 1947 he went to the University of Minnesota Medical School as an associate professor of pediatrics and in 1952 joined the State University of Iowa College of Medicine as Professor and Chairman of the Department of Pediatrics. From 1957 to 1961 Dr. May was Clinical Professor of Pediatrics at Columbia University. Throughout this phase of his career, Dr. May's clinical and research work focused on infant nutrition and nutritional diseases of children (Dr. May, Tr. 10064, 10068–71). In 1961 Dr. May joined the faculty at New York University School of Medicine, and in 1970 Dr. May joined the staff at the National Jewish Hospital, where he operates a special care facility of eight hospital beds, special staff and 24-hour direct observation of patients. This facility is unique in the research and treatment of allergic disease (Dr. May, Tr. 10073–74). In its operation, Dr. May and his colleagues have developed a "double-blind" method which eliminates all uncertainty in the diagnosis of food allergies (RX 1750, 1756).

Dr. May's contributions to medical knowledge in the fields of infant nutrition, pediatrics and allergy have been recognized by his profession. He has received both the Mead Johnson Award (1949) and the Borden Award (1958) which are granted by the American Academy of Pediatrics in recognition of outstanding research contribution in the fields of pediatrics and nutrition during the preceding year (Dr. May, Tr. 10080–81; RX 1525). Dr. May was Vice-President of the American Academy of Allergy for the year 1977–78, an honorary position awarded in recognition of significant contributions to the field of allergy (Dr. May, Tr. 10078–79). Dr. May is also Chairman of the Academy's Committee on Food Allergy and a member of the NIH Task Force on Pediatric Allergy. He is a fellow or member of many professional societies (RX 1525) and has written many scholarly reports and articles on his research work (RX 1525(b) through (f)).

Dr. Abba I. Terr

Dr. Abba I. Terr is a medical doctor specializing in allergy and clinical immunology (Dr. Terr, Tr. 10193). His curriculum vitae is in the record as RX 1524. He obtained his degree from Western Reserve University School of Medicine in 1956 and completed his residency in internal medicine at the University of Michigan Medical Center in 1960. He then completed a two-year fellowship in allergy and immunology leading to a Master of Science degree at the University of Michigan, and joined the faculty as an instructor. Thereafter, [74]

he became assistant professor of internal medicine in the section of allergy, and simultaneously served as a clinical investigator at the Veterans Administration Hospital in Ann Arbor where his research was funded by a United States Public Health Service research career development award. In 1966 he joined the faculty of Case Western Reserve University School of Medicine as an assistant professor and Director of the medical school's Allergy Clinic (Dr. Terr, Tr. 10194–96). Dr. Terr relocated in San Francisco, California, in late 1970 and has devoted approximately 70% of his time since then to a private consulting practice in the field of adult allergy and clinical immunology. The balance of his time is divided between Stanford University School of Medicine, where Dr. Terr is Director of Adult Allergy Clinic and Clinical Associate Professor of Medicine, and the San Francisco Childrens Hospital where he is Director of the Allergy Clinic. He is also a civilian consultant to the Allergy Clinic at Letterman Hospital operated by the United States Army. Dr. Terr is chairman of the scientific advisory panel on allergy of the California Medical Association, a member and fellow of many professional societies and has written articles on his research and clinical work (Dr. Terr, Tr. 10196–99; RX 1524).

113. Allergy is the field of medicine concerned with adverse immunologic reactions to the introduction of foreign substances, normally proteins, into the human body (Dr. Kretchmer, Tr. 380–91, 780; Dr. Frick, Tr. 4595; Dr. Kaufman, Tr. 3250–51; Dr. May, Tr. 10092–96; Dr. Terr, Tr. 10210–11). These foreign substances may gain access through the nose or mouth or by contact with or injection through the skin (Dr. Frick, Tr. 4587; Dr. Kaufman, Tr. 3251; Dr. May, Tr. 10094). The allergic response is a result of the recognition by the body's immune system that the protein which has penetrated the body is foreign. This foreign substance, known as an antigen or allergen, triggers the production of antibodies which circulate throughout the body. A given allergen will provoke a heterogenous response, an array of antibodies, immunoglobulins, which combine with the allergen and which may, through that combination, cause a variety of physical manifestations or symptoms (Dr. May, Tr. 10092–96).

114. Food allergy, and in particular milk allergy, can cause a variety of symptoms ranging from runny nose or rhinitis, skin rash or exzema to allergic dermatitis, cramps, diarrhea, asthma and even anaphylactic shock (Dr. May, Tr. 10107–09; Dr. Kaufman, Tr. 3261; Dr. Paige, Tr. 879–80; 1232–35; Dr. Terr, Tr. 10211). [75]

115. The common symptoms of milk allergy, however, are not of major medical significance except in rare instances (Dr. Paige, Tr.

1233–34; Dr. Terr, 10203–07; Dr. May, 10209; Dr. Kaufman, Tr. 3356; Dr. Kretchmer, Tr. 380). Not only are the symptoms caused by milk allergy generally not serious, all experts agreed that to the extent milk allergy exists, it is a condition which is most prevalent during infancy, declining rapidly after that age (Dr. Paige, Tr. 885, 1230, 1250, 1234–35, 1238–39; Dr. Kretchmer, Tr. 786, 788; Dr. Frick, Tr. 4608–10; Dr. Kaufman, Tr. 3362; Dr. May, Tr. 10114–15; Dr. Terr, Tr. 10213).

116. The more frequent reports of milk allergy among infants may be due to mis-diagnosis (Dr. May, 10109; Dr. Terr, Tr. 10214–15). Dr. Paige testified (Tr. 1234–35):

I think there is over-diagnosis in this area by working pediatricians because there is a tendency to overrespond to problems such as colic and loose bowel movements in the young victim by what I would call a wastebasket diagnosis of allergy.

* * * I am focusing now on the infant. It is not an uncommon complaint for a mother to bring in a child suggesting that he has colic, a syndrome for which we have no rational explanation, or that the child is having some loose stools or he doesn't seem to be taking his milk and with very little application to the problem many pediatricians will lump those findings into a diagnosis of milk allergy.

Double blind studies have been conducted by Dr. May and his colleagues at the National Jewish Hospital in Denver, Colorado, which show that only one-half of infants diagnosed by conventional methods as being allergic to *any* food actually are allergic to such food. Only one-third of diagnosed food allergies in persons over the age of three are confirmed by double-blind food challenges (Dr. May, Tr. 10113; RX 1750(f), 1756(i)).

117. The overwhelming majority of infants, in the neighborhood of 90%, will have recovered from milk "allergy" within several weeks to perhaps a year after initial diagnosis [76] (Dr. Paige, Tr. 1239–40, 1250). Dr. May testified that 80% of infants exhibiting symptomatic sensitivity to milk will lose that reactivity within their first year of life and that approximately 98% will be asymptomatic by the time they are sixteen (Dr. May, Tr. 10114–15). The disappearance of milk allergy apparently results from maturation of both the gastrointestinal tract and of the immunity system, so that fewer milk allergens penetrate the intestinal mucosa and fewer harmful antibodies are precipitated by the milk allergens which do penetrate (Dr. May, Tr. 10116–17).

118. There are no reliable surveys or studies upon which any opinion of the prevalence of milk allergy in the population as a

whole can be based (Dr. Frick, Tr. 4608; Dr. May, Tr. 10169-70; Dr. Terr, Tr. 10232). In a chapter for a text *Allergy Principles and Practice* published in 1978 headed "Adverse Reactions To Food Due to Hypersensitivity," Dr. May and Dr. S. Allan Bock wrote (RX 421(b))[3]:

Unequivocal clinical manifestations of hypersensitivity readily ascribed to ingestion of food are probably not common; perhaps less than 1% of infants exhibit symptomatic hypersensitivity to cow's milk, and this may be one of the most frequent examples.

119. Dr. Charles D. May in recent studies of food sensitivity established that reliable determinations of food allergies can only be made by a double-blind procedure "which eliminates the bias of the observers and the prejudice of the patient" (RX 1750(c); RX 1756(v)). As already stated, Dr. May established that only one-half of children under three years of age diagnosed by conventional methods as being allergic to any food actually are, and that only one-third of diagnosed food allergies in children over the age of three are confirmed by double-blind procedures (RX 1750(f); RX 1756(i)). Dr. May stated in his written lecture on "Food Sensitivity" (RX 1750(f)): [77]

In the next Slide (*5*) are seen the results we obtained in double-blind food challenges in 81 children over 3 years of age with histories of reactions to foods. Symptoms were provoked in only 27 of the 81 children, or 33%. Symptoms were provoked in only 36 of 164 tests with different foods, or 22%. *Thus, more than two thirds of the histories of reactions to foods could not be confirmed and were psychologic or imaginary.* Of the 36 reactions, most were due to peanut and other nuts and a relatively few to egg, milk, and soy. These four food items accounted for all the reactions we observed even though some reactions were claimed to be due to other foods listed in the previous slide. Puncture skin tests with the corresponding food extracts were positive in all the cases of confirmed reactions, and this will be discussed in greater detail later. The onset of symptoms in these children was within minutes to 2 hours and therefore characteristic of reaginic reactions. The reactions were caused by 20 to 8,000 mg of the dried food. (Emphasis added).

120. In an article "A Modern Clinical Approach To Food Hypersensitivity" prepared for *Allergy* Dr. May and his associate Dr. Allan Bock stated (RX 1756(i)):

In recent studies administration of foods so that neither the subject nor the observer knew what was being consumed - a double-blind procedure - revealed that only about a third of histories of adverse reactions to food could be confirmed objectively.

With respect to the diagnosis of milk allergy, Dr. May testified (Tr. 10113):

* * * of those persons who are reported or believed to have milk reactions without

[3] This exhibit was received in evidence for all purposes (Tr. 3387) although the undersigned apparently did not specifically so state on the record.

using double blind studies, that only half of those in infancy will be confirmed and in older people, only a third of them will be confirmed by double blind studies. In other words, there is a large amount of error in what is assumed to have been an association between some symptoms and the ingestion of milk. [78]

121. The most scientifically reliable evidence in the record on the prevalence of true milk allergy was provided by Dr. May. Dr. May testified that true milk allergy was "extremely uncommon among adults" (Tr. 10170). In Dr. May's expert opinion, among infants two years old or younger there would be approximately 5 instances of true milk allergy per 1000 (Tr. 10113-14). Between the ages of 2 or 3 and 16, the incidence of milk allergy would be about 1/50th of the figure for infants 2 years old or younger, in other words 1/50th of 5 per 1000, or about 1 in 10,000 (Dr. May, Tr. 10115). Dr. May testified to his experience at the University of Colorado Medical School and National Jewish Hospital, Denver (Tr. 10115–16):

* * * we seldom have a person come to us who is 16 years of age and who is still exhibiting clinical symptomatic sensitivity to milk and we virtually never have an adult who comes to us with that complaint.

Over the age of 16 the incidence of milk allergy is even lower although Dr. May had no specific figure, testifying only that it was "exceedingly rare" (Tr. 10175).

122. Dr. Abba Terr testified that in eight years of medical practice as a consulting allergist he had treated only two confirmed cases of milk allergy during which period he treated between 4000 and 5000 patients suspected of experiencing an allergic response to some substance (Dr. Terr, Tr. 10202–03).

123. Dr. Oscar L. Frick testified on cross-examination that one-half of one percent of the population would experience allergic reactions to milk at some time in their lives, but at any given time only one-twentieth of one percent of the population would be subject to symptoms from milk allergy, as follows (Tr. 4625–26):

Q. Do you recall stating your opinion in the course of that meeting that approximately less than one-twentieth of one percent of the general population would be experiencing signs or symptums [*sic*] resulting from milk allergy at any given time?

A. That's right, on any one day, I think, is the way we put it. [79]

Q. At any given time?

A. Yes.

Q. One-twentieth of one per cent?

A. Yes.

Q. And that if you were to project that number to the general population who would experience signs or symptoms as a result of milk allergy at any time during their life, I believe you indicated you would multiply that one-twentieth of one per cent by ten?

A. I believe that was the figures that we used, yes.

Q. Which would give you one-half of one per cent for the general population at sometime during their life?

A. Yes.

One-half of 1% "for the general population at sometime during their life" is equivalent to 5 instances per 1000 people. One-twentieth of 1% amounts to one person in 2,000 people.

124. On direct examination Dr. Frick testified that "around seven percent or seven and a half per cent" of children "zero to three years" of age would be allergic to milk. (Tr. 4606-07). This figure must be discounted in view of Dr. May's studies that only one-half of such diagnoses by the usual methods in medical practice are confirmed objectively by double-blind studies. Furthermore, as Dr. Kretchmer testified "There is a tendency for a child to grow out of it" (Tr. 380). Among the "pediatric age group," aged 3 through 15, Dr. Frick "would put the figure at about 5 per cent" for the prevalence of milk allergy, although the study Dr. Frick referenced involving 400 infants in 1957, the incidence was only 1% (Tr. 4608). For the population as a whole Dr. Frick could not provide a percentage figure because "one doesn't really know because there really are no figures on that" (Tr. 4608).

125. Dr. David Paige believed that 7 percent of children (Tr. 883, 1250) and "7 per cent or 10 per cent of the general population were allergic to milk" (Tr. 885-86). The latter testimony for the general population included infants and children. Since Dr. Paige had already testified that 7 per cent [80] of children were allergic to milk, his testimony that "7 per cent or 10 per cent" of the general population is allergic to milk is difficult to accept in view of his testimony at Tr. 1239 that the overwhelming majority of children, "in the range of 90 percent," recover from that condition. If the latter statement is true then the incidence for the general population cannot be the same or greater than the incidence for children. The basis of Dr. Paige's estimate is also somewhat vague "General pediatric literature" "experience" and "conversation" (Tr. 886). Again, as Dr. May's studies established, diagnosis for milk allergy using conventional methods are highly unreliable.

126. According to Dr. Kaufman "5 to 15 percent" of adults, 15 percent of adolescents aged 12 to 18, and about 15 to 20 percent of

children aged 1 to 12, are allergic to cow's milk (Tr. 3286–87). Dr. Kaufman recognized that his estimates of milk allergy prevalence were considerably higher than those contained in the medical and scientific literature on the subject (Tr. 3287–99, Tr. 3413–15, 3419–27). Dr. Kaufman testified that his estimates of the prevalence of milk allergy were based on his clinical experience as a practicing allergist. However, 90% of his patients were referred to him by other physicians who had already determined that the patient was probably suffering from an allergic reaction (Tr. 3325, 3426–27; Tr. 3438–39). The clinical experience of Dr. Kaufman thus was with a patient group clearly not representative of the general population. Moreover, Dr. Kaufman's diagnosis of milk allergy in his practice was subject to the infirmity documented by Dr. May. Unless double-blind techniques are employed, unreliable figures for prevalence are obtained. Dr. Kaufman did not use double-blind diagnostic techniques (Tr. 3375, 3392–94). Dr. Kaufman's opinion as to prevalence of milk allergy was also based on a study he performed in 1964–66 involving 92 infants, one or both of whose parents were allergic and who had a confirmed history of allergy symptoms (Tr. 3395). The problem with such a study as a basis for an opinion of prevalence lies in the fact that if one or both parents of an infant are allergic, the likelihood that the infant will be allergic is much greater than would otherwise be the case (Tr. 3396–97). The 92 infants studied by Dr. Kaufman, therefore, were not representative of the general population. Any estimates of prevalence of milk allergy based on such a group are invalid. Dr. Kaufman believed that milk is not a desirable food and that "you're going to find that, just as tobacco has been found to be an undesirable product, you're going to find that cow's milk is as well" (Tr. 3418). In 1972 he wrote a letter relative to the Milk Board's "Every body needs milk" advertising in which he stated "careful studies have demonstrated that 45% of the negro children in the Baltimore area became sick when [81] given cow's milk" (CX 206). On cross-examination of Dr. Kaufman it became clear that no studies by the Johns Hopkins group or any other groups on Negro children in Baltimore established that 45 percent of Negro children in the Baltimore area became sick when given cow's milk (Tr. 3430–38). Dr. Kaufman did not provide references to any medical or scientific articles which reflected figures for the prevalence of milk allergy comparable to his estimates.

127. The preponderence of the evidence established beyond serious question that true allergic reactions to milk are so rare in the general population, at least beyond infancy, as to be of no consequence.

Respondents' Advertising Considered in view of the Evidence Relating to Milk Allergy and Lactose Intolerance

It has been found that respondents' advertising conveyed the representations (1) that milk was "essential, necessary and needed by all individuals" for proper nutrition and good health, (2) that consumption of milk was "beneficial for all individuals" and (3) that the consumption of milk was "beneficial in large or unlimited quantities."

128. As indicated earlier, milk is not a dietary requirement for any one individual to obtain essential nutrients and to maintain good health. Every nutrient which milk supplies to the human body can be obtained from other foods by any individual, although in the case of calcium particularly, this would not be easy but would require careful dietary planning and selection of foods. From a nutritional standpoint and from the standpoint of the population of California and the United States as a whole, however, milk is essential. Were milk to be withdrawn from the California food supply, or that of the U.S. as a whole, a nutritional crisis would be created and probably there would be no readily available way to supply the resulting nutrient deficit.

129. True milk allergy is so rare in the population after infancy that this condition must be disregarded in examining respondents' advertising, whether utilizing the theme "Every body needs milk" or "Milk has something for every body." There are some individuals in the population allergic to almost any food including milk, but it is unreasonable to condemn the advertising of the Milk Advisory Board and Cunningham & Walsh because of this tiny fraction of the population. [82]

130. The percentage of various population groups which are lactase deficient has been set out in a prior section. The percentage of lactase deficient persons among various population groups is approximately as follows: Caucasians about 10%, Japanese, 100%, Chinese, 100%, American Indians, 60%, Filipinos, 100%, Koreans, 100%, Mexican Americans, 50%, and Blacks, about 70%.

131. Primary lactase deficiency, as described in prior findings, is a condition where the lactase enzyme level is high at birth and falls after weaning through mid-childhood, as a normal course of events in persons without disease (Dr. Kretchmer, Tr. 397–98; Dr. Latham, Tr. 9160). Children under ten who are destined to be lactase deficient, may not have reached a fully lactase deficient state when under that age. Applying the percentages set out in the previous finding to the various population groups in California 10 years of age

or older who are probably lactase deficient, results in a total of 4 to 5 million lactase deficient persons, in round figures about 20% to 25% of the California population (CX 694, Characteristics of the Population - California (1970), Bureau of the Census, U.S. Department of Commerce). Following the Hispanic population, the California Caucasian population contains the largest number of lactase deficient persons in the state. This is the case because the number of persons in that population group is greater by far than in any other group, although their percentage of lactase deficient persons is low.

132. Of the 20% to 25% of the California population which is lactase deficient, probably at most only 15%, as previously found, would experience symptoms of any kind from 240 ml of milk consumed at a sitting, and these would generally be mild and inconsequential. Of those experiencing symptoms of some kind, the evidence establishes that in only 15% would the symptoms be of sufficient social or psychological concern or cause sufficient physical discomfort, for the symptoms to be considered significant. Lactase deficient persons with symptoms of any significance from drinking 8 ounces of milk, in other words, constitute in all likelihood considerably less than 1%, in fact, about .7%, of the California population of 16,391,161 persons ten years of age or older in 1970. In terms of population groups with high percentages of lactase deficient persons, the number who would experience symptoms of any significance from an 8 ounce glass of milk is still extremely small, probably amounting to less than 2%. And such symptoms as are experienced are not "health problems." They have no bearing at all on individual health, *e.g.,* being mild gas or a "soft stool," or the like. Diarrhea is non-existent or extremely rare from 240 ml of milk (Dr. Paige, Tr. 1377-78; Dr. Briggs, Tr. 8325-26). [83] The foregoing percentages, of course, are essentially estimates, although based on the most reliable and persusasive studies and expert testimony in the record. Statistically valid projections are impossible on this record. This is true because there are no surveys based upon representative samples which would permit statistically valid and accurate projections to the total California population, or to particular population groups.

133. As stated earlier, the complaint does not challenge respondents' advertising from the standpoint of the California population generally. The complaint only challenges respondents' advertising to the extent it had impact on persons with "health problems" such as "certain allergies" and "symptomatic lactose intolerance." With respect to "symptomatic lactose intolerance," the advertising was challenged on the ground that milk is not "essential, necessary or needed" by those with that condition, on the ground that milk is

"detrimental" to such individuals, and on the ground that milk is detrimental to such individuals "in large or unlimited quantities."

134. The population of California experiencing significant symptoms due to "symptomatic lactose intolerance" from drinking normal and usual amounts of milk at a meal or at a time is so small in relation to the total population of the state that it is unreasonable to consider this condition in examining respondents' advertising. It is unreasonable to judge the advertising of the Milk Board and Cunningham & Walsh from the standpoint of this small, less than 1% segment of the population.

135. The record establishes, furthermore, that persons who do have significant symptoms from drinking milk are well aware of this and limit their milk intake to a level which does not produce symptoms they find undesirable. Those who have not associated their "symptoms" with milk consumption have in all probability not done so because the symptoms have been so mild they have not paid a great deal of attention to them. If there are lactase deficient persons who are really troubled by symptoms from milk drinking but who continue to drink milk, not having associated the symptoms with the milk consumption, their number is unknown. The record does not prove there is any significant number of such persons. Conclusions in a matter of this importance cannot be made on the basis of argument or speculation. [84]

136. If respondents' advertising is judged from the standpoint of the less than 1% of the population with symptoms of any significance, the advertising was nevertheless not "unfair, false, misleading and deceptive." The fact that milk is not literally needed by any one individual with "symptomatic lactose intolerance" does not compel the conclusion that respondents' advertising was "unfair, false, misleading and deceptive." The record proves that although any particular individual can obtain the nutrients in milk, particularly the calcium and riboflavin, from other sources, that is not practical for most individuals. The Food and Nutrition Board of the National Academy of Sciences has established the RDA for calcium to be 800 mg. Any one individual can obtain 800 mg of calcium from sources other than milk, although with difficulty. Most individuals cannot or will not do this. If they do not, they will suffer nutritional deficiencies. Looking beyond a single individual, or a few individuals, substantial evidence establishes that milk is "essential, necessary and needed" by the people of California and all significant population groups in that state, including the bulk of those with "symptomatic lactose intolerance."

137. Although it has been found that the portion of the California

population experiencing symptoms of any significance from 8 ounces of milk is so small that the Milk Board and Cunningham & Walsh did not have to tailor their advertising to fit this small segment of the population, the fact is that drinking normal and usual amounts of milk, around an 8 ounce glass at a meal or at a time, is not detrimental to "symptomatic lactose intolerant" persons. Such amounts of milk consumption, on the contrary, are beneficial to such persons. They obtain all the nutrients contained in milk, except possibly the calories present in the lactose (see CX 432, 644; Dr. Scrimshaw, Tr. 9857, 9947–48, 9960–61; Dr. Latham, Tr. 9262–66; see also, CX 224; Dr. Scrimshaw, Tr. 9837–43; RX 1471). Without milk drinking as suggested in the preceding findings, the "symptomatic lactose intolerant" person undergoes a substantial risk of suffering from a long term calcium deficiency with probable serious adverse effects on health, and possible other nutritional deficiencies. Individuals who do not have the training, knowledge and ability to learn the composition of foods, the will or funds to be guided by the composition of foods in preparing their diets so that they obtain all nutrients, particularly calcium, their bodies require, do need milk. [85]

138. The representations conveyed by respondent's advertising, furthermore, were essentially the same as the dietary advice given to the public by the Federal government for many years prior to WW II and continuing to the present. Countless U.S. Department of Agriculture pamphlets and other communications have told the public that everyone *needs* milk, that everyone should drink some milk every day, that teenagers should drink 4 or more 8 ounce cups daily, and adults 2 or more 8 ounce cups daily. No qualifications have been made in this Federal government dietary advice for lactase deficient persons. See RX 343, 345, 347–48, 350, 356(a) through (y), 369, 395.

139. Respondents addressed representations in their advertising to the 20% to 25% of the California population which is lactase deficient that milk drinking in large or unlimited quantities was beneficial, and that such persons should drink milk in such quantities. As milk consumption by lactase deficient persons increases beyond the 8 ounce-at-a-time level, the number of lactase deficient persons who will experience symptoms increases and the significance of such symptoms increases. Symptoms and the significance of the symptoms, in other words, are "dose-related" (Dr. Scrimshaw, Tr. 9856; Dr. Latham, Tr. 9645; Dr. Paige, Tr. 948; CX 407(c); RX 297(d); CX 571(c); RX 400(z)(10); CX 593(a)–(b), CX 500(j), 419(b), (c) and (d); CX 463(b), 494(c) and (d), CX 668(b), 685(b)).

Ingestion of unusually large or unlimited quantities of milk at one time can produce diarrhea, rather than simply "soft-stools," and other significant symptoms among lactase deficient persons. The number of lactase deficient persons in California, as described, is substantial. Respondents' advertising encouraging and suggesting that this population group consume large or unlimited quantities of milk at a time was unfair and misleading.

The Milk Advisory Board and its Relation to the State of California

Background

Advisory Boards and Marketing Orders under California Law

140. The California Marketing Act of 1937, as the date suggests, was depression oriented legislation. The purpose was to aid the state's agricultural community which then faced unprecedented problems in selling its products. As a basis for the Act, the California legislature found that the inability of agricultural producers to maintain [86] markets or to develop new or larger markets for their products had resulted in unreasonable and unnecessary economic waste of the agricultural wealth of California, that this jeopardized continued production of adequate supplies of farm products and prevented producers from obtaining a fair return, and that unless such problems were alleviated agricultural producers would be prevented from maintaining a proper standard of living and contributing their fair share to the costs of government. The California legislature declared that it was the policy of the State of California to aid producers of agricultural commodities in solving their marketing problems, and that the marketing of agricultural commodities was affected with a public interest (Cal. Agri. Code, §§ 58651–58, 653, in the record as CX 1110 (z–81), *et. seq.*).

141. Among the purposes of the Marketing Act of 1937 were the following (Cal. Agri. Code, § 58654):

(1) to provide methods and means for the maintenance of present markets, or for the development of new or larger markets, for commodities which are grown within this state and,

(2) to restore and maintain adequate purchasing power for the producers of the state.

142. In achieving these objectives the Marketing Act of 1937 authorized a variety of activities including surplus control and stabilization funding; limitation of quantity; allotment of quantity or

quality for purchase; allotment of quantity or quality for processing or distribution; regulation of period for processing; surplus, stabilization or byproduct pools; grading standards, uniform inspection and grading; advertising and sale promotion; prohibition of unfair trade practices; production adjustment benefits; research studies; quality improvement; educational programs; official board brands, trade names or labels; and prevention and control of insects, predators and diseases (Cal. Agri. Code, §§ 58882–95). As listed, advertising and sale promotion were specifically authorized activities which producers of a commodity might obtain a marketing order to conduct, but those activities were not necessarily required under the Act. The Marketing Act of 1937 thus authorized the promulgation of marketing orders for specific products and purposes, and the creation of advisory boards to formulate and carry out marketing plans (Cal. Agri. Code, § 58741, *et seq.*). [87] With respect to advertising and promotion the Act provided (Cal. Agri. Code, § 58889):

> A marketing order may contain provisions for the establishment of plans for advertising and sales promotion to maintain present markets or to create new or larger markets for any commodity which is grown in this state.

Under the Act generic advertising only is permitted without reference to private brands or trade names, and false or unwarranted claims, including disparagement of other commodities, are specifically prohibited (Cal. Agri. Code, § 58889).

143. Before a marketing order may be issued, the Director of the California Department of Food and Agriculture must find reason to believe that a proposed marketing order will tend to effectuate the policies of the Marketing Act. Thereafter, the Director, upon notice to the industry and the public, must conduct a public hearing and, based thereon, make findings that the proposed marketing order will effectuate the policies of the Marketing Act. Following that, the proposed marketing order must be submitted to a vote of the producers of the commodity involved. If approved, a marketing order may be promulgated (Cal. Agri. Code, §§ 58741, 58771, 58772–75, 58777, 58782–88, 58811–14). Approval must be by a majority according to one or the other of the following percentages of producers (Cal. Agri. Code, § 58993):

(a) 65% of the producers representing at least 51% of production, or

(b) 51% of producers representing 65% of production.

144. All marketing order activities must be paid for by the

producers who band together to carry out the activities provided for in the order. An assessment is levied on each producer after the marketing order has been approved with a maximum being specified. The maximum assessment cannot be increased except by another vote pursuant to the foregoing voting formula (Cal. Agri. Code, §§ 58921-22, 59034).

145. Under the Marketing Act monies obtained by assessment on the producers of a commodity covered by a marketing order may be used for the generic advertising and promotion of the commodity, if that is an activity or objective authorized by the particular marketing order involved, and for the payment of all expenses incurred in carrying out [88] the authorized marketing plan. Among the expenses which must be paid by producers are the expenses incurred by the state Department of Food and Agriculture in formulating, issuing, administering and enforcing the Marketing Order, including the time of the Director and Department personnel (Cal. Agri. Code, §§ 58921, 58941, 58961). Funds collected by assessment on producers must be deposited in a bank or other depository, and segregated for the account of the particular marketing order under which the funds were collected. No monies may be expended without the approval of the Director of Food and Agriculture, and assessment funds may be spent only for marketing order expenses (Cal. Agri. Code, § 58937).

146. Assessment funds collected are not part of the general revenues of the State of California but are in the nature of trust fund monies which can only be used, as stated, for expenses incurred in implementing the marketing order. Income on assessment funds is allocated to the particular marketing order account involved. If monies are not expended for marketing order purposes in a particular fiscal year, they are carried over to defray marketing order expenses for the following fiscal year. In the event that a marketing order terminates, the Marketing Act of 1937 requires that unexpended assessment funds, if any, be refunded pro rata to the producers from whom the funds were collected. If the unexpended funds are so small that a pro rata refund to producers is impractical, the funds may be held to defray expenses of a subsequent marketing order (Cal. Agri. Code, §§ 58938-39).

147. Although the Marketing Act of 1937 lodges responsibility for administering marketing orders in the Director of Food and Agriculture, the Act requires that each marketing order provide for an advisory board to assist the Director in carrying out this responsibility. The advisory board must consist entirely of producers of the commodity covered by the marketing order except for one member from the Department of Food and Agriculture or a public member.

The Director has authority to monitor all activities conducted under a marketing order for compliance with the Act and with the provisions of the marketing order; no actions may be taken without his approval, directly or through staff of the Department of Food and Agriculture (Cal. Agri. Code, §§ 58711-12, 58846(a), 59141-42, 59161-63). The California Director of Food and Agriculture appoints all members of advisory boards although marketing orders contain provisions for the nomination of producers for the Director's consideration (Cal. Agri. Code, §§ 58841-43). [89]

148. The California Director of Food and Agriculture may delegate to an advisory board responsibilities for administering marketing orders including authority to enter into contracts or agreements, authority to employ personnel, and authority to incur expenses, all subject, however, to the approval of the Director (Cal. Agri. Code, § 58845).

149. Advisory boards formed under the California Marketing Act of 1937 may be terminated at any time following, in general, the procedures governing the establishment and promulgation of marketing orders, and a vote of the producers of the commodity according to the formula set out earlier.

Formation of the California Milk Producers Advisory Board and Promulgation of the Marketing Order under Which It Was Organized

150. During the 1950's and 1960's a number of milk producers in the State of California maintained a state affiliate of the American Dairy Association. This affiliate was known as the American Dairy Association of California (hereinafter sometimes referred to as ADA of California). It was formed for the purpose, among others, of advertising and promoting milk consumption (CX 2210(d)(47); Shields, Tr. 1866-71; Reuhl, Tr. 2079-80).

151. The ADA of California was a purely voluntary association, funded only by dues and contributions from those milk producers who chose to join. It could not require dairymen either to join or to contribute (CX 1110(y)-(z); Shields, Tr. 1872; Larson, Tr. 11581, 11584). By the year 1968, 70 percent of dairy farmers were contributing members, but this group represented only about 50% of the total volume of market milk produced in California. Larger dairies often did not join or contribute to the Association's budget to advertise and promote milk consumption. Nevertheless, the large dairies reaped the benefits (Larson, Tr. 11584-85; Reuhl, Tr. 2085-86), and this situation discouraged many dairymen who supported the organization, making it difficult to hold them as members. Mr.

Larson, a director of the ADA of California and later a Chairman of the California Milk Producers Advisory Board testified (Tr. 11585–86):

Q. Did there come a time when you, personally, and/or the ADA of California decided that some steps would have to be taken to remedy this situation that you just described with respect to the amount of membership in the state? [90]

A. Yes, I think it was probably about 1966 that we began thinking that it was hard to hold the membership in the organization. We could not get the big ones that should be in, so we began to realize that it was going to have to be a compulsory program, or I think ADA of California would have fallen apart, so that is when we started thinking about some total program.

152. Between 1958 and 1969, reflecting a national trend, per capita consumption of milk in California declined from approximately 146 quarts to approximately 127 quarts, a decline of 13 percent in one decade (CX 2210(E–01), p. 2; CX 2430(a), 2431(b); Shields, Tr. 1872). By 1969 this downward trend had become a matter of serious concern to California milk producers. Before that time population increases had prevented the per capita decrease in milk consumption from reducing total gallonage sold. In the later 1960's, however, the population growth of California began to level off rendering the per capita decrease in milk consumption particularly significant to dairy farmers (Larson, Tr. 11591; Reuhl, Tr. 2281–82, 2285; Krade, Tr. 9737; Shahbazian, Tr. 4399–4400; RX 1464, 1467; CX 1110(z–206)). The ADA of California and many dairy farmers concluded that milk was competing with heavily advertised junk food and soft drinks, and that the advertising of milk had not been extensive or aggressive enough to permit milk to hold its own or to halt the continuing decline in per capita consumption (CX 1110(z)–(z1) (z4–z5), (z31–z32), (z–65); CX 1119(b), 2210(E–01), p. 2).

153. As a result of the problems faced by the ADA of California in obtaining sufficient funds for a promotional program for milk of the desired magnitude, efforts were directed toward creation of a mandatory program by which all California milk producers could be required to contribute to a promotional fund. Initially the management of the ADA of California sought to obtain the status of an agricultural marketing commission which had greater freedom to act and less control by the Director of Food and Agriculture than an advisory board (Reuhl, Tr. 2092; Larson, Tr. 11586). This proposal was opposed by the Department of Food and Agriculture and was dropped in favor of an amendment to the Marketing Act to permit the promulgation of a milk marketing order and the creation of an advisory board under the Marketing Act of 1937 (Reuhl, Tr. 2092).

For a marketing order and an advisory board to promote the sale of milk under the Marketing Act of 1937, however, an amendment to the Marketing Act was necessary since under the California code market milk was not [91] within the definition of a "commodity" which could be the subject of a marketing order (Reuhl, Tr. 2091; Krade, Tr. 9736; Larson, Tr. 11586–87; Shahbazian, Tr. 2388).

154. The proposal to amend the Marketing Act of 1937 to permit issuance of a marketing order for milk and the creation of a Milk Advisory Board was supported by the then Director of Food and Agriculture and the Chief of the Bureau of Marketing (Krade, Tr. 9738; Shahbazian, Tr. 2408). The Chief of the Bureau of Marketing testified (Krade, Tr. 9739):

> We felt at that time that there was a good, rational argument that promotion and advertising might very well help the dairy industry in its time of difficulty.

155. In 1959, pursuant to the efforts of the ADA of California and the state's dairy farmers, an amendment to the Marketing Act of 1937 authorizing a marketing order and the formation of an advisory board for market milk was enacted (Larson, Tr. 11589; Krade, Tr. 9742). The amendment became effective in June 1969 (Shahbazian, Tr. 4169).

156. After notice to the industry and the public, and the required hearings, the Director of the California Department of Food and Agriculture, through department staff, made the findings needed under the Marketing Act and approved a proposed marketing order for milk which was then submitted to the milk producers of the state for their approval (CX 1110, 1119, 1130(a)–(b), 1135; Krade, Tr. 9746–47, 9756–57, 9763–64, 9768, 9781; Shahbazian, Tr. 2388).

157. The marketing order was ratified by over 80 percent of producers (Larson, Tr. 11590; Krade, Tr. 9781). Meetings of milk producers were thereafter held in the various districts to nominate producers from among whom the Director could select the Advisory Board members (Shahbazian, Tr. 2401–02). Following the approval of the requisite percentage of milk producers, the marketing order was made effective by the Director of Food and Agriculture and the California Milk Producers Advisory Board came into existence in December 1969 (CX 1146(a)–(zl).

158. The ADA of California played a leadership role at all stages in the creation of the Advisory Board (Reuhl, Tr. 2096–2101, 2116–17, 2311–12; Larson, Tr. 11581, 11585–90, 11618–19; Shahbazian, Tr. 2412–12(b); Krade, Tr. 9746–47, 9753–55; CX 1110(x)(z)–71, CX 1130). The ADA of California was dissolved in late 1969 or early 1970 after

the formation of the Advisory Board (Reuhl, Tr. 2102; Larson, Tr. 11588–89). [92]

159. The staff of the ADA of California, in general, became the staff of the California Milk Producers Advisory Board (CX 2403(d)–(e); Reuhl, Tr. 2103–06; Larson, Tr. 11600–01). The manager of the ADA of California, Mr. Reuhl, became the manager of the Advisory Board (CX 2210(d)–47; Reuhl, Tr. 2103). The assistant manager and public relations director of the ADA of California, Mr. Shields, became the Advisory Board's assistant manager and public relations director (Shields, Tr. 1865–66). Mr. Larson, a member of the Board of Directors of the ADA of California became Chairman of the Advisory Board (Larson, Tr. 11581, 11589, 11600). Most of the members of the Board of Directors of the ADA of California became members of the Advisory Board (Reuhl, Tr. 2108–09; Calcagno, Tr. 11668). The offices of the ADA of California in Modesto, California, became the Advisory Board's offices and the association's office supplies, furniture and equipment became the Advisory Board's office supplies, furniture and equipment (Reuhl, Tr. 2102–03; Larson, Tr. 11588–89).

California Milk Producers Advisory Board

Authority, Purpose and Objectives

160. The primary mission of the California Milk Producers Advisory Board is to promote the consumption of milk in the state of California using the funds obtained by the mandatory assessment authorized by the Marketing Order and approved by the state's milk producers. To this end, the Advisory Board has authority, subject to the approval of the Director of Food and Agriculture, to formulate and carry out promotional and advertising programs, to employ a staff, to hire agents and consultants, and to expend the assessed funds (Cal. Agri. Code, §§ 58845–46; CX 1110(z–89), 1146).

161. The specific objectives of the "Marketing Order for Research, Education and Promotion of Market Milk and Dairy Products in California" as stated by the findings of the Department of Food and Agriculture preliminary to its adoption, were the following (CX 1119(a)):

1. To more effectively correlate the marketing of California market milk and dairy products with the demand therefor;
2. To establish and maintain orderly marketing of market milk;
3. To provide methods and means for the maintenance of present markets and for the development of new and larger markets for California milk and dairy products; and [93]

4. To eliminate or reduce economic waste in the marketing of milk and dairy products.

162. The purpose of the Milk Advisory Board was expressed in more everyday language from time to time by Board members and staff, by officials and staff of the Department of Food and Agriculture, and by leaders of California dairymen. These statements reflect the understanding of the California dairy industry of the purpose of the Board and its activities and objectives. Mr. Norman Larson, Chairman of the Milk Advisory Board from its formation through 1973 and a Board member since that time, testified in this proceeding to the Board's objective (Tr. 11591):

Well, I don't think its any different from the American Dairy Association. The goal was always to sell milk. We realized what was happening. I think that is the thing that spurred this on, the fact that per capita consumption was continually going down. This has been the sole purpose of our organization, to sell our product.

Mr. Oren Christensen representing the ADA of California testified at the 1969 hearing conducted by the Department of Food and Agriculture on the proposed Marketing Order for milk (CX 1110(z)(z1)):

Experts in the field of promotion tell us beyond a shadow of doubt that unless we conduct expanded programs of dairy food promotion in all categories and on all levels we can expect a continuation of our decline in our per capita consumption of milk. Any businessman engaged in the sale of a product or service will tell you the same thing whether he is selling tractors or clothing, cigarettes or automobiles.

Mr Hugh Good, a Board member of the ADA of California and subsequently a member of the Milk Advisory Board, and a member of the Dairy Council of California, testified at the same hearing (CX 110, (z11)–(z12)):

The plan under consideration today, financed and operated by the dairy farmers of California subject to the approval of the Director of Agriculture, fills the need for commercial promotion on a non-brand basis covering the entire state. [94]

Mr. Good also expressed the distinction between the proposed Milk Advisory Board and the Dairy Council of California (CX 1110 (z–12)):

This plan would not infringe on or duplicate the excellent work being done by the Dairy Council of California in the field of education with the schools and professional people. The Dairy Council has the confidence and is accepted as an authority on

nutrition by the Educational System. I would feel that a strong commercial advertising approach by the Dairy Council would jeopardize the favorable position enjoyed by Dairy Council with the schools of California.

To be most effective, our milk marketing program must remain separate as a commercial sales approach to the consumer, and our educational program must also be continued as a separate entity. I believe the intent and aim of this plan is to do just this.

Other California dairymen testified to the same effect, that advertising and promotion of milk were needed for the economic good of the dairy farmers of California (CX 1110).

163. Mr. Vernon L. Shahbazian, a senior agricultural Economist in the Bureau of Marketing of the Department of Food and Agriculture, summarized the testimony at the hearing on the prospective Marketing Order for milk (CX 1119(b)):

According to the testimony received, there was a desire to carry out strong commercial advertising to consumers. This would complement the information and education approach used by the Dairy Council of California, which includes a strong program of education in the schools. [95]

164. The "1974 Marketing Plan" presented to the Advisory Board by Cunningham & Walsh, after stating that in March 1970 the Board had launched "one of the most effective advertising campaigns ever implemented for any product," restated the "overall objectives" of the Board and the "basic reason for being formed" (CX 3116, p. 4):

To Build Milk Sales For The
Benefit of Dairy Farmers

-and-

At All Times, Milk Must Be
Portrayed In A Dignified,
Wholesome, Truthful,
and Sincere Manner.

The overall, long-term goal of the Board was given as "to return the per capita consumption of milk to its all-time high of 140 quarts achieved in 1947."

165. The objectives and basic purpose of the Milk Advisory Board to increase milk sales and thereby to enhance the economic well-being of California's dairy farmers were frequently stated to dairy farmers and others by the Milk Advisory Board in "The Milk Advisor," and in a publication called "The Dairyman" which located several pages to activities of the Milk Advisory Board (CX 25–72; CX 3135–58).

166. During the trial of this proceeding, Mr. Louis Calcagno, current chairman of the Milk Advisory Board, testified to the purpose of the Board (Tr. 11649):

A. I would believe we have the sole purpose of telling the public about our nutritional product, and of course, to increase the per capita consumption and the sale of Class 1 milk and other dairy products.

Q. Does the program of the California Milk Producers Advisory Board, in your opinion, benefit all of the dairymen in the State of California? [96]

A. It surely benefits all of them. I could not think of any particular part of the industry that hasn't benefited. New sales create new pool quota, new pool quotas are given to producers; and, of course, this enhances their income; makes it more economical and feasible for them to produce milk.

Membership

167. The Milk Advisory Board consists of 24 producers of "market milk" and, since 1975, one public member (Shahbazian, Tr. 4175; CX 1146(w)–(x), (xx), Article I, Section A, Subsections 1, 6). Stated non-technically, "market milk" is milk produced and marketed for consumption as fluid milk and for the manufacture of fluid milk products (Agri. Code, §§ 32509–10, 35751–55, 38183, 38213, 38452, 38512, 38521). The public member, not a milk producer, is on the Board to represent the interests of the California general public (Schribner, Tr. 11194–95, see also, Calcagno, Tr. 11647–48; Shahbazian, Tr. 4337–38; Ikari, Tr. 2607–98, 2705–10).

168. The members of the Milk Advisory Board are appointed by the Director of Food and Agriculture from among the state's milk producers, except for the public member. Advisory Board members are generally selected from lists of nominees submitted after vote by assessment-paying dairy farmers (CX 1146(x), Article II, Section A, Subsection 3), although the Director is not required to appoint Board members who have been nominated by the milk producers (Rominger, Tr. 11253–54). The state of California is divided into districts so that the membership of the Milk Advisory Board is drawn from various geographic areas of the state which produce market milk (CX 1146(z) to (z–1), Article II, Section A, Subsection 5; CX 2304(l); Shahbazian, Tr. 4179–80, 4278). Milk producers within a district select their nominees to the Milk Advisory Board at nomination meetings at which only milk producing dairy farmers are eligible to vote (CX 1146, which is the Marketing Order with all amendments to date, Tr. 4200–04; CX 2304(l)–(m), CX 1126(b), CX 1227(b), Shahbazian, Tr. 4275–80; Rominger, Tr. 11242–43).

169. Over the years, the Director of Food and Agriculture ha

usually appointed the dairymen to the Milk Advisory Board who have received the most votes of milk producers in their districts (Portello, Tr. 2761; Shahbazian, Tr. 4177, 4277-79; Rominger, Tr. 11241-42, 11253-54). The public member is selected by the Director from among those whose names have been submitted by various groups including the Milk Board (Calcagno, Tr. 11648; Ikari, Tr. 2607-98). [97]

Funding

170. Milk Advisory Board activities are funded entirely by assessments on dairy farmers producing market milk. No tax or other monies are received from the state of California, and the state is paid by the Milk Advisory Board for all expenses incurred as a result of administering the Marketing Order or arising from the operations of the Board (CX 1146, 2201(e)-01, p. 2, CX 2304(m), CX 2472(b), 1380, 1386-93; Shahbazian, Tr. 4280-83, 4286-88; Loe, Tr. 10284-85; Adams, Tr. 19432).

171. Minutes of Milk Board meetings, publications, and other documentation in the record, reflect the fact that Board activities are conducted for the economic benefit of the state's dairymen (CX 2444(b), CX 811(d), 2308(d), 2461(c), 3415(b); see generally CX 2425 through CX 2472, CX 3135 through CX 3158).

172. In voting for the Marketing Order for milk and the formation of the Milk Advisory Board, the dairy farmers initially approved an assessment on each producer of 1/2 of 1 percent of gross sales value (CX 1135(n)-(o); CX 2210(E-01), p. 2; CX 2431(c)). In June 1971, upon recommendation of the Milk Advisory Board and approval of the dairy farmers, the Director of Food and Agriculture increased the permissible assessment to 1 percent of gross sales value (CX 1184, 1188, 2433(b)). Each year the Milk Advisory Board proposed for approval by the Director an annual assessment rate ıpon milk producers in conjunction with an annual budget of the Milk Advisory Board (CX 1189, 1191, 1193). In proposing an annual ssessment rate, the Milk Advisory Board may recommend to the)irector any assessment rate within the maximum (Reuhl, Tr. 2192-3, 2309-10). For 1974, the Board recommended, and the Director ɔproved, an assessment rate of .884% out of a maximum rate of 1 ɪrcent (CX 1193).

173. The assessment levied on California dairymen provided the lowing amounts for the promotion of milk and other activities of ɜ Milk Advisory Board for the years indicated:

Year	*Amount*	*Exhibit*
12-69 to 6-70	$ 885,912.	CX 1380
7-70 to 6-71	2,616,305.	CX 1386
7-71 to 12-71	2,130,607.	CX 1387
1-72 to 12-72	5,383,129.	CX 1388
1-73 to 12-73	5,788,830.	CX 1389
1-74 to 12-74	7,625,669.	CX 1390
1-75 to 12-75	7,941,505.	CX 1391
1-76 to 12-76	9,809,656.	CX 1392
1-77 to 12-77	9,135,938.	CX 1393

[98] Staff and Committees

174. The Milk Advisory Board employs a staff of approximately fifteen persons (CX 2403(d); Reuhl, Tr. 2104-05). These employees are not classified civil service employees of California (CX 2304(t); RX 1465; Shahbazian, Tr. 2383; Krade, Tr. 9787-88). Staff activities are directed by a manager and an assistant manager (Reuhl, Tr. 2076-77; Shields, Tr. 1866). The Milk Advisory Board itself meets every two months at which time it reviews and directs staff activity, and approves matters for submission to the California Director of Food and Agriculture for his approval (Reuhl, Tr. 2076-77; CX 800).

175. The Milk Advisory Board staff has included at various times persons directing efforts in the fields of advertising, marketing, merchandising, public relations, industry relations, and sales and development (CX 2424(c), 2430(b), 2442(c), 2448(c), 2452(c), 2453(d)). Until 1975 the Board maintained committees headed by dairymen members, to which the Board staff reported, in the following fields: Advertising, Executive, Grocery Seminar, Merchandising, Public Relations, Publicity and Dairy Princess Committee, and Research (CX 850, 903, 1031, 1060; Reuhl, Tr. 2306). Since 1975, the Milk Advisory Board has utilized only two committees, Executive and Research, with the staff reporting to the Board itself (Reuhl, Tr. 1476).

Promotion of Milk by the California Milk Producers Advisory Board

Overall Promotional Work

176. As in the case of the ADA of California, the Milk Advisory Board's principal methods for promoting milk and dairy products were advertising, merchandising and public relations. A 1975 Milk Advisory Board press release stated: "The sole purpose of CMPAB is to promote milk and dairy products through advertising, in-store merchandising, public relations and other promotional techniques" (CX 2210 (E-01); Shields, Tr. 1870-72; Reuhl, Tr. 2079).

177. Although advertising was doubtless the major method of

milk promotion, the Milk Advisory Board employed all the promotional techniques currently used in the commercial world. Mr. Gordon Reuhl, manager of the Board wrote in "The Dairyman" in June 1973 (CX 3144(b)): [99]

> I am often asked by dairymen and others in the dairy industry what I believe to be the most effective means of selling milk through our promotional program in California. This is difficult to answer, for we know it is a total effort which produces the sales increases we are seeing, and this includes not only advertising, but merchandising, marketing, public relations and publicity, and a variety of other activities.

Among the promotional activities conducted by the Milk Advisory Board were the following:

Generic advertising (CX 2433(c); 2434(a)).

Public relations (CX 2311; 2425(c)).

Dairy Princess Program (Tr. 9799; CX 2426(d)).

June Dairy Month (Reuhl, Tr. 2174–75; Krade, Tr. 9799; CX 1031(a)).

Restaurant awards and related industry awards (Reuhl, Tr. 2171; Krade, Tr. 9799; CX 1031(a)).

Merchandising (CX 2425(b), 2428(c)).

Grocer seminars (Reuhl, Tr. 2177; Larson, Tr. 11584; CX 2425(c), 2441(d)).

Point of sales materials (CX 180(c), 2449(b); 2461(d)).

Annual nomination and information meetings (CX 1031(b), 1227(b), 2210(g–08), p. 3).

County fair booths (Reuhl, Tr. 2176).

Research (CX 1060; Larson, Tr. 11595–99).

In general, the foregoing were a continuation, although on a larger scale, of the activities of the ADA of California. (Reuhl, Tr. 2079, 2171–74, 2176–77; Shields, Tr. 1870–71, 1892–93; Larson, Tr. 11582–84; CX 1031(a), (b)). [100]

178. The broad spectrum of milk promotional activities engaged in by the Milk Advisory Board is described by the Board's manager in "The Milk Advisor" issue of May 1977. Although this statement was made after the advertising challenged in the complaint had been terminated, it shows the scope of the Milk Advisory Board's

activities from the time of its formation at the end of 1969 (CX 2467(b)):

To reach our 1976 objectives, the Milk Advisory Board created new, exciting programs, improved on existing activities and began investigation of ways to further expand the market for milk in California.

The concept of a "total promotion program" has been enhanced with the even closer coordination of all program elements. Each department has its own specialization—its own particular job to do — and is a vital part of the total marketing program.

Individually and collectively, I believe, CMAB's programs are doing what they set out to do and doing extremely well. Briefly, I'll review the past programs so you, the dairymen who pay for this, will see how the total promotion program accomplishes its marketing objectives.

ADVERTISING, where the biggest portion of funds are expended, reaches consumers with a number of unique messages. The Open Your Mouth for Milk campaign with dairy farmers and consumers has been the flagship in our television advertising efforts and performed excellently. While this campaign aims at women, other campaigns have large audiences of young adults and children.

MERCHANDISING is closely coordinated with advertising through individual promotions. Each promotion is created to maximize the impact on the shopper at the grocery store. Creative in-store materials, from banners to booklets, seek to give shoppers a vivid reminder to buy dairy products. [101]

SALES & DEVELOPMENT is our other important contact with grocers. This department provides grocery operators with training sessions to improve their dairy sections, assuring that high quality milk products are sold to consumers. High volume chain stores and independent grocers have participated in this program and have shown significant sales increases by following recommended procedures.

HOME ECONOMICS works closely in preparation of recipes and food information for use by merchandising and advertising, and conducts an intensive food page publicity program. The appealing recipes and photos you see with milk, cottage cheese, yogurt and other dairy products are created carefully and then provided to news media.

PUBLIC RELATIONS & PRINCESS programs provide support for the total program with publicity materials, plus create special events and handle countless media and consumer inquiries. The Princess program continues to serve the industry's needs for a fulltime spokesperson traveling the state, meeting thousands of people.

Periodically each department reviews its activities and management makes the same close appraisal of the total promotion program. We will continue to work effectively and promise you the best possible effort.

179. In 1972 the Milk Advisory Board allocated its funds approximately as follows: Advertising, 80 percent, Merchandising, 12 percent, Public Relations & Princess, 3 percent, Administration, 2 1/2 percent, Marketing, 1 1/2 percent, other, 1 percent (CX 2444(c)).

Allocations for the years 1973 through 1975 were comparable (CX 2451(b), 2456(b), 2462(b)).

Dissemination of Advertising

180. Shortly after coming into existence in December 1969, the Milk Advisory Board solicited and heard presentations by advertising agencies in order to select an agency to handle the Board's anticipated million dollar advertising program (CX 801(a), 850(a)–(b); Bier, Tr. 1454–56). As a result of this [102] solicitation, Cunningham & Walsh was engaged to handle the Board's advertising and to develop and implement an advertising campaign to promote milk (Bier, Tr. 1453–57; CX 801(a), 850(a)–(b)). Initial advertising copy was purchased and the slogan "Every Body Needs Milk" was obtained. The Milk Advisory Board and Cunningham & Walsh studied possible advertising themes and strategies and, utilizing TV, radio, print media and billboards, commenced substantial advertising and promotional campaigns to encourage milk consumption.

181. In 1971 the milk producers voted to increase their assessment to one (1) percent as already described, doubling the budget available to the Milk Board for advertising (CX 2431(b), (d); 2433(b)). The decision of California milk producers to expand the Milk Advisory Board's advertising and promotional budget by increasing the assessment rate from one-half a percent (1/2) to one (1) percent was to benefit dairymen by attempting to increase milk consumption. In addition to the increase in revenues which would be generated by an increase in milk sales, under the California pricing structure at that time an increase in demand for dairy products was a factor in granting an increase in the price the producer obtained for milk. Higher prices to dairymen tended to result when milk sales increased (Adams, Tr. 10417–18; CX 2430(a), 2431(c); see also Cal. Agri. Code, § 62062(b)). In advocating approval of the increased assessment to producers in *"The Milk Adviser,"* the Advisory Board described the benefit to dairymen from increased advertising, involving not only higher sales, but also higher prices to producers for their milk. The Board stated (CX 2431(c)):

> Now that the Milk Advisory Board program of "Every Body Needs Milk" has proved itself by creating over a 90% awareness for milk advertising in California, it is known that the MAB program is pointed in the right direction. All that is needed to continue to build sales is sufficient money to reach the consumer regularly with milk messages. Solid research tells us this.
>
> Increased Class 1 sales and per capita consumption will produce a better blend price revenue, with eventual increases in the Class 1 price to producers. Pool quotos

[*sic*] can become more valuable and equalization of quota goes along with increased usage. In addition, the assessment cost is figured in by the Department of Agriculture as a cost of production. In other words, the consumer pays the bill. That is the way all advertising is figured by any advertiser. . . a part of production and distribution costs, included in the price of product to the consumer. [103]

Let's say the Class 1 and per capita decline had been stopped in 1967, and dairymen began to realize a 1% yearly increase in sales, a reasonable figure. If that had been the case, an extra 169 million gallons of milk would have been sold in the 1967-70 period, over a three month supply of milk. Blend price revenue alone would have increased $20 million and increases in Class 1 prices would surely have resulted, adding $5.4 million per year for every 10¢ raise. And, Class 1 raises surely would be more than 10¢. This analysis has been reviewed and approved by the Bureau of Milk Stabilization.

Per capita sales, down 2.2% in 1969, could have been down 2.5 to 3.5% in the high unemployment year of 1970 producing Class 1 sales declines from 1 to 2%. Instead preliminiary figures tell us that 1970 will level off in Class 1 sales and per capita sales will be down only about 1.5%. Increased advertising can turn the tide for dairymen. Everything points that way.

With an increase in the assessment on milk producers to one (1) percent, *"The Milk Advisor"* stated to California dairymen that "2 1/2 Times More Milk Advertising could be obtained, offering "Expanded Television," "Expanded Radio," "Expanded Newspapers," "Expanded Billboards," "More Magazine" ads, "More Merchandising," "More Grocer Seminars," "More Food Recipe Publicity," "More Public Relations," and "More Marketing" (CX 2431(a)).

182. The expenditures of the Milk Board for the advertising of milk were set out earlier herein. As stated, they ranged from $1,645,753 in the Board's fiscal year July 1970 to June 1971 to $5,637,199 in the year January 1974 to December 1974 (CX 1386-90).

Marketing and Advertising Research

183. The Milk Advisory Board and Cunningham & Walsh continuously analyzed their advertising and promotional efforts and devoted substantial and professional effort to determining the most effective means of advertising and measuring success in this respect. In a 1976 review of advertising research, the Milk Advisory Board's advertising manager, stated (CX 2308(d)): [104]

During the past six years, I believe we have used almost every known device to accurately measure the effectiveness of our advertising and promotional efforts. We know, with a great deal of precision, just how many dollars it takes to move the product and what media weight are necessary to achieve this objective. And we also know precisely what sort of return this activity brings to the dairymen - sponsors of our programs.

184. The staff merchandising manager of the Milk Advisory

Board believed the Board and its advertising agency were utilizing the most effective techniques available for effective promotion of milk through advertising. A tape recording of a Milk Advisory Board meeting in 1974 reveals the self-confidence of the Board staff in this respect (CX 4200, p. 70):

We are the best equipped thanks to you, of Proctor and Gamble, of General Foods, General Motors, Henry Ford. None of them have any more basic knowledge of the product and what to do and how they're going to do it. No one in the business advisory capacity, research advisor, consultants or anything else can tell us what to do. We are farther ahead and more sophisticated than any one of the bunch.

Again at another meeting a Board staff member stated (CX 4200, pp. 61–62):

Our marketing plan is correct that our primary target is to make sure that the purchasing agent, the mother or the woman of the house, is convinced that she should continue to supply it [milk] and have it [milk] on hand for her children. Under no circumstances am I going to talk about doing anything about that. That should continue. But what we would like to do, in this layering effect, is to take a couple of the other layers and drive through the housewife and get so strong to the teenagers and the children and the other members of her family, so that regardless of how she feels about pinching her pennies, that they will drive through her so they'll have enough force to ask her — in other words make her buy the product. [105]

Now, a few years ago we probably couldn't do this but I'm sure we can and I think for the Fall, and with the budget money that we have available for it, that we could do a job and it would pay you more money than in any other way of just doing more of the same.

185. In devising their advertising strategy, the Milk Advisory Board and Cunningham & Walsh made major use of marketing studies, surveys, and research into consumer attitudes (CX 2308(b)–(d), 2444(b), 2449(b), 3150, 3151, 3154, 3155(a), 4200, pp. 11, 22–23, 39–40, 60). The effectiveness of their advertising and promotional activities were judged on the basis of success in increasing milk and dairy products sales. In October of 1973, the Board's manager reported to dairy farmers in *"The Milk Advisor"* (CX 3145(b)):

It has been 24 months since the California dairymen's investment of 1% of their gross income, through the Milk Advisory Board, has been working for them to sell milk and milk products. The Green Sheet shows a Class I usage increase for every month during this period, over the same month of the previous year. And, for the first time in many, many years, we are experiencing a per capita increase in Class I consumption, making real dollars and cents sense.

* * * * * * *

The evident benefits are these: we now have the figures to show that, because of the increased sales we have been experiencing from July 1971 through June 1973, market milk producers of California are now receiving increased revenues of $8.00 for
$1.00 invested in their

expect this return ratio to increase even further as our powerful milk sales program continues.

See also, CX 2430(a), 2431(b), (c), 2438(b), 2439(b), 2440(b), 2444(b), 2445(b), 2446(b), 2448(a), 2453(b), 2454(b), 2462(a), (b), 2467(a), 2469(b), 2471(b), 3137(a), 3141(d), 3146(c), 3147, 3153, 3157, 3158. **[106]**

186. In their advertising and promotional work, the Milk Advisory Board and Cunningham & Walsh were concerned with the greater income the increase in milk and dairy product sales brought to California's dairy farmers. Where promotion of whole milk tended to produce more income for the milk producers than promotion of skim or low-fat milk, or the dairymen thought this was the case, the former was emphasized. In the course of the so-called "Celebrity" advertising campaign a "Pat Boone" commercial mentioned non-fat and low-fat milk (CX 808(h), 862(b)). A draft marketing plan dated September 25, 1970, stated:

The effects of price blending are to return pure profit to the producer when the proportion of Class I usage increases. A contrary effect comes from increasing sales of low-fat milk, which forces a larger proportion of milk fat usage in Class II and III.

Although there is some question whether this statement is wholly true, dairy farmers historically seem to have believed that there was more return to them from whole milk than from skim or low-fat milk (Adams, Tr. 10475–78; Holm, Tr. 4681–82; see also, CX 3141(d), managers column). The minutes of a meeting of the Milk Advisory Board on September 2, 1971, state in connection with the foregoing "Pat Boone" commercial (CX 808(h)):

Chairman Warden [Chairman of Board Advertising Committee] reviewed the Committee's action in their meeting of August 20 and September 1, 1971. The Committee has taken action to:

* * * * * * *

(3) Establish a policy that new commercials do not contain any reference to non-fat, skim, or low-fat milks and that emphasis be placed upon whole milk, except for the Pat Boone radio and television commercials. The Boone TV commercial is to be edited to remove the "weight control" section and the non-fat and skim words if possible.

See also CX 862(b), 3000, p. 267; Holm, Tr. 4750–51; CX 825(f), 873(a). **[107]**

Public Relations

187. The Advisory Board, in addition to engaging in advertising

and promotional activities to increase milk and dairy product sales, also engaged in public relations work to create a favorable public image for milk and milk products and to counter any adverse developments or publicity (Shields, Tr. 1916-17, 1940-43, 2010-11; CX 2311). In 1972 the Board retained a professional public relations firm to carry out public relations activities for the Board, the dairy industry and milk and milk products (CX 1938(a); Shields, Tr. 1897-1902). The Board's firm has prepared press releases and information material, and has responded to unfavorable industry publicity and has developed public relations programs generally (CX 818(e), 819(b), 913(b), 1038(a), 1048, 2210(g)-01, (g)-08, 2311(b)-(e)). The public relations committee and the Board's public relations firm reviewed the Board's "public relations and publicity activities" at a meeting held June 19, 1974 (CX 1048). The review noted that in the first six months of 1974 the public relations program had centered on the rising price of milk and the resulting consumer reaction (CX 1948(c)). In this area the agency had concentrated on providing news media "with accurate information on the reasons why milk prices had risen in California" using a variety of public relations techniques including the following (CX 1948(c)):

Stories have been developed relating the specific reasons why dairymen sought higher milk prices.

Background information fact sheets on the industry were supplied to hundreds of newspapers, radio and television stations.

Media contact was maintained with press representatives throughout the state. Contact increased substantially prior to and during the milk boycott period.

Feature articles on dairymen have been written and distributed to community and trade publications. Feature ideas have been supplied to other newspapers, radio and television stations.

Television film clips and radio tapes have been produced using dairymen as subjects, personalizing the industry story. [108]

A television film clip and radio tape were created specifically to explain how milk prices are set in California.

A press conference was held using dairy industry leaders.

To facilitate coordination of information and provide media with facts about the industry, the agency has taken part in meetings with industry organizations, providing facts and statements to the spokesmen and the press.

Feature length stories have been provided to grocery and dairy industry trade publications covering the grocery store dairy case seminar program, interviews with and promotion of the Dairy Princess, and other CMAB programs.

Other activities during the past six months include promotion of the speakers bureau, assisting on internal information and supporting other CMAB departments when requested.

Problem areas were identified, according to the Committee minutes, from extensive monitoring of public hearings, press reports, meetings with consumer groups and industry officials. Among the current and continuing problem areas were: resistance to higher milk prices, investigations into California's price regulating system, investigations into political contributions by the milk industry, heart disease and lactose intolerance. The Board's public relations committee stated its recommendations for the period June-December 1974 in the following language (CX 1048(d)):

We believe the California dairy industry is facing the most critical period in decades. The problems, as listed, are not single issues to be dealt with individually. Rather, they interrelate as a major public relations problem whereby the state, national and virtually every aspect of the industry from producer to retailer is under scrutiny and attack. For example, rising costs forced milk prices upward. That, in turn, has caused extensive consumer activist reaction. Their calls resulted in a legislative study and criticism of the regulatory system. Since then, attacks on milk advertising and promotion and heightened publicity on lactose intolerance and health issues have increased. [109]

All of these factors have come together and reflect unfavorably on the industry and ultimately on the public attitudes toward milk. Blunting or eliminating these attacks has been and will continue to be the goal of CMAB's public relations effort.

To approach these goals we recommend a substantial increase in agency activities in line with what has developed during the past several months. Specifically, we recommend closer working arrangements with other industry organizations to effect a united public relations effort. We also recommend continuation of meetings and informational exchanges with consumer organizations to enhance understanding and mutual interests. We recommend close attention to the upcoming election period with the expectation that factual information must be supplied to interested parties so that milk does not become a "political football." And we recommend continuation of the agency's intensified news media contact work created in part by the boycott of milk.

Additionally, we recommend the continuation of proven activities - press releases to the general news media, special features to community papers, radio and television features and news items, speakers bureau, Dairy Princess promotion, and general support of CMAB departments and publications.

It was recommended that the public relations budget for the Milk Advisory Board budget be increased to $75,000 for the last six months of 1974. The report stated (CX 1048(e)):

The second half estimate assumes an even greater role for the agency in working with other dairy industry groups to effect a united PR effort and the continuation of programs to combat such problems as: consumer protest, FTC charges, Senate and Assembly investigations, attacks on health and nutritional qualities of milk, issue-

seeking candidates in the November elections. In addition, the estimate is based on our [110] anticipated role in new programs to promote milk sales. We would expect these efforts to be an integral part of CMAB's total renewed thrust in advertising, merchandising and sales promotion.

188. In meeting the problems confronted by the milk industry, the Milk Advisory Board and its public relations agency joined with other organizations to coordinate the industry's public relations activities (CX 1049(b), 1050(a), 2452(b), 3148; Shields, Tr. 2057–63). The Board supported higher milk prices through press conferences, media visits, news releases, print, radio and television advertisements, and public relations activity generally (CX 1048(c), 2449(c), 2451(b), 2456(a), (d)). In the middle of 1974, the Board reported on its public relations efforts, as follows (CX 3148; see also CX 2451(b)):

We're confident the campaign has blunted some of the consumer resistance to higher prices, and it took some of the edge off the "Fight and Switch" boycott.

Nutritional Education

189. Although some of the advertising of the Milk Advisory Board contained nutritional messages, the Board did not engage in nutritional educational activities as such (CX 1119(b), 2311(a); Shields, Tr. 1869, 1877, 1920–21; Krade, Tr. 9777–78). Nutrition education in connection with milk and dairy products in California is the responsibility of the California Dairy Council (Cal. Agri. Code, §§ 64001, *et. seq.*). The Dairy Council is supported by both milk producers and milk handlers, whereas the Milk Advisory Board is supported only by producers of market milk (Cal. Agri. Code, §§ 64251–52; CX 1146(j)–(k), Article IV, Section C, Subsection 1; Reuhl, Tr. 2154). Milk producers have on occasion expressed concern over supporting duplicate work (CX 860(b), 1110(z–12); Reuhl, Tr. 2153–55, 2163), and the Board has adopted a policy of avoiding overlapping efforts with those of the Dairy Council in the field of education (CX 860(b), 1146(l), Article V, Section B; Reuhl, Tr. 2154–55; Ikari, Tr. 2725–26). The Dairy Council conducts nutritional programs concerning the use of milk and milk products and the Milk Advisory Board promotes the consumption of milk and milk products (CX 1110(z–12), 2311(a); Shields, Tr. 1869; Ikari, Tr. 2723, 2725–26; Shahbazian, Tr. 4244–48; Krade, Tr. 9777–80). [111] Since nutritional and medical issues are not primarily within the expertise of the Milk Advisory Board, those matters have been handled over the years by the Dairy Council (Shields, Tr. 1918–21, 1966).

Activities or Relationships with Other Groups

190. After formation in 1969 the Milk Advisory Board remained, through 1971, an affiliate of the American Dairy Association. During this period the Board paid an affiliation fee and purchased advertising and promotional materials (CX 907(a), 2037, 2435(b); Larson, Tr. 11607-08, 11624-26; Shields, Tr. 1867-68, 1885-86; Reuhl, Tr. 2209-15). As already described, the American Dairy Association is a national organization aimed at expanding dairy markets by increasing the consumption and the use of milk and milk products through a variety of programs (CX 903(d); see also, CX 903(b); Krade, Tr. 11086-87; see also, Shields, Tr. 1866-67, 1877-84). The Board spent the following amounts for services of the American Dairy Association including affiliation fees (CX 1380, 1386, 2435(b), 1387):

Period	*Amount*
December 1969 to June 1970	$134,374
July 1970 to June 1971	$382,055
July 1971 to December 1971	$220,800

191. As an affiliate of the American Dairy Association, the Milk Advisory Board participated in some of the decision-making processes of the American Dairy Association (Shields, Tr. 1890; Larson, Tr. 11619-24, 11627, 11629). The Chairman of the Milk Advisory Board held a membership on the Board of the American Dairy Association, also serving on its Executive Committee as a representative of dairymen in eight western states (CX 806(c), 2434(b); Shields, Tr. 1890-92; Larson, Tr. 11607-09, 11619-24, 11627, 11629). The Milk Advisory Board regularly sent delegates to the American Dairy Association meetings during this period of affiliation (Shields, Tr. 1890-91; Larson, Tr. 11607-09). There were a number of contracts or agreements relative to services and other relations between the Milk Board and the American Dairy Association although copies are no longer available (CX 903(b), (d); 802(g), 2037, 2038; Shields, Tr. 1867-68, 1877-84; Reuhl, Tr. 2117-20, 2215-16; Shahbazian, Tr. 4372; Krade, Tr. 11087-88; Larson, Tr. 11607-08). [112]

The Milk Advisory Board ceased its affiliation with the American Dairy Association in late 1971 or early 1972 when the United Dairy Industries Association ("UDIA") was formed as a funding organization for various national trade associations of the dairy industry including (CX 809(a); Reuhl, Tr. 2186) the American Dairy Association, the National Dairy Council and Dairy Research Incorporated (CX 911(c); Reuhl, Tr. 2185). The Advisory Board was required to end its affiliation by the California Department of Food and Agriculture because under the reorganized ADA structure the Milk Board was

unable to exercise any control over the advertising and promotional expenditures of the new United Dairy Industries Association (CX 1521, 1522; Shahbazian, Tr. 4371-72). Members and staff of the Milk Board, however, continued to attend national meetings of the United Dairy Industries Association, the American Dairy Association, and the National Dairy Council (CX 810(a), 914(b); Reuhl, Tr. 2184-87).

192. The California Milk Producers Advisory Board disseminated advertising jointly with dairymen in the States of Oregon and Washington over the logo "California-Oregon-Washington Dairymen." This program was conducted by an organization known as the Tri-State Approval Board or the California-Oregon-Washington Approval Board. The purpose of this jointly run program was to obtain lower network television rates in promoting milk (CX 1080, 1081, 852(a), 865(b), 914(b), 3137(a); Ikari, Tr. 2727-29; Shahbazian, Tr. 4428-29).

193. The Tri-State Approval Board also on occasion sold advertising and promotional materials to other generic milk advertisers such as state affiliates of the ADA (CX 1983(e), (g-h); Krade, Tr. 9797-98; see also, CX 814(d), 881(c)). The United Dairymen of Arizona, a private generic milk promotional organization in Arizona, participated in the so-called "Milk White Is In" campaign (CX 2201, pp. 5, 13; Tr. 11218). The "Milk White Is In" brochure, distributed in Arizona, carried the identifying logo "California-Oregon-Washington-Arizona Dairymen" (CX 2201, pp. 5, 13; Ikari, Tr. 2649, 11218).

194. The Milk Advisory Board from time to time engaged in cooperative advertising or "tie-in" programs with private brand advertisers such as Nestle's, Nabisco, Post Cereals, and General Motors Corporation (CX 2201, 2449(b), 2452(c), 2461(d), 2470(a), 4200, pp. 37-38). The latter ad featured a "Milk White Monza" (CX 2201).

195. The Milk Advisory Board has maintained membership in a number of industry and trade organizations whose meetings Board members or staff attended including the Council of [113] California Growers, the Farm Bureau, the State Chamber of Commerce, the Modesto Trade Club, the American Society of Association Executives, and the Western States Conference (CX 810(a), 914(b), 921(c), 2040, 2041, 2042, 2066, 2450(b); Reuhl, Tr. 2121-22; 2177-84).

Supervision of Milk Advisory Board by California Department of Food and Agriculture

196. As indicated in prior findings, the impetus for a California marketing order originates with an industry wishing to promote its particular commodity or product, not from the state (Krade, Tr. 9744-45; Loe, Tr. 10253-54; Rominger, Tr. 11259). That was the

situation with respect to the market milk order involved in this proceeding. The milk producers of California organized to develop and obtain a market milk order.

197. In deciding whether to approve a proposed marketing order, the California Department of Food and Agriculture must determine whether the proposed program appears likely to achieve the statutory objective of enhancing producer income. However, even if that is true nothing requires the California Director of Food and Agriculture to approve, and there have been instances where such approval was not given and a marketing order approved by an industry was not put into effect (Portello, Tr. 2802–03; Loe, Tr. 10280–82; Krade, Tr. 6715–17; Cal. Agri. Code § 58811–12; see also Cal. Agri. Code §§ 58651–54; CX 1119).

198. The actions of an advisory board formed pursuant to a marketing order are all subject to the approval of the California Director of Food and Agriculture, and that applied to the California Milk Producers Advisory Board. Whether or not prior approval of all Board actions was in fact always required, the California Director of Food and Agriculture had the authority to require it (CX 1146(d)–(h); Rominger, Tr. 11243).

199. California marketing orders typically specify the qualifications and eligibility requirements for membership on boards formed under them, and that was done in the case of the market milk order under which the California Milk Producers Advisory Board was formed (CX 1146(b)–(d), 2304(l)–(m)). Nomination meetings, previously mentioned, are held annually upon formal notice to milk producers within each district under the supervision of an agricultural economist of the Bureau of Marketing of the Department of Food and Agriculture (Shahbazian, Tr. 4175–77; Calcagno, Tr. 11644–45; Portello, Tr. 2760–62; Lee, Tr. 2407–98; Reuhl, Tr. 2173, 2305). The [114] role of the economist is to ensure that the nomination procedures are fair, and that persons nominated meet the qualifications prescribed by the Marketing Act and the Marketing Order (Portello, Tr. 2761–62; Shahbazian, Tr. 4277–78). Following a nomination meeting, the Department of Food and Agriculture economist transmits the results of the voting in the form of a written recommendation to the Director of the Department of Food and Agriculture (Scribner, Tr. 11204; Loe, Tr. 10285; Rominger, Tr. 11241–42). As stated earlier, the Director personally appoints all members and alternate members of each advisory board (Schribner, Tr. 11204; Rominger, Tr. 11241). In practically all cases the Director appoints as members those selected by the industry involved, in this case the milk producers (CX 2304(1); Portello, Tr. 2751; Shahbazian,

Tr. 4177, 4277–79), although upon rare occasions the Director has rejected persons nominated by producers (Rominger, Tr. 11253–54). There have been instances when members have been summarily removed from the boards (Shahbazian, Tr. 4278).

200. After a marketing order has been approved, the Department of Food and Agriculture permits advisory boards reasonable discretion in proposing and carrying out programs and activities in furtherance of the objectives of the marketing order involved (Krade, Tr. 9785; Erickson, Tr. 3562–63). In filling staff positions, including that of staff management, advisory boards are given latitude because "an industry knows what kind of management expertise and what kind of people that it needs to work with it in order to effectuate a program" (Krade, Tr. 9785). Although advisory boards are given latitude in the selection of a manager and staff personnel the ultimate authority for appointment and compensation resides in the Director of the Department of Food and Agriculture (Krade, Tr. 9783–84; Ikari, Tr. 2627–28; Reuhl, Tr. 2300–01; Shields, Tr. 1913; Portello, Tr. 2750; Calcagno, Tr. 11647). The Director does not necessarily accept an advisory board's recommendations with respect to salaries paid, and there were instances where the Director refused to pay the salaries sought by the Milk Advisory Board (Reuhl, Tr. 2301–02; Calcagno, Tr. 11647).

201. Expenses incurred by the Milk Advisory Board are subject to detailed control, review and approval by the California Department of Food and Agriculture (CX 2350; RX 1747; Reuhl, Tr. 2298–99; Shahbazian, Tr. 4186, 4358–60; Loe, Tr. 10305–06). All bills incurred by the Milk Advisory Board must be submitted to the Department for payment by that office (Reuhl, Tr. 2299). California administrative regulations applicable to expenditures by state agencies are also applicable to expenses of the Milk Advisory Board governing such matters [115] as travel, telephone charges, meals, per diem allowances to milk board members and staff for travel away from home, car rental charges, and purchases of supplies, equipment, and services. These regulations are applied to the Milk Board by the Department's fiscal office (CX 2350(a)-(gg); Shahbazian, Tr. 4359–60), and failure to comply with applicable state rules and regulations could result in disallowance of the claim (Shahbazian, Tr. 4360). The Department of Food and Agriculture, as indicated, reviews and approves salaries of the Milk Board staff and management, and the amounts expended for perquisites (Manager's salary: CX 1527(a), 1528(a); Reuhl, Tr. 2301–02; Krade, Tr. 9783–87; Loe, Tr. 10289–90, 10301–02; Larson, Tr. 11601–05; automobiles, Reuhl, Tr. 2296–97; Shahbazian, Tr. 4363–66; Lee, Tr. 2517).

202. In addition to applicable state regulations, the Bureau of Marketing of the Department of Food and Agriculture required the Milk Advisory Board to comply with certain of its own regulations, relative to the expenditure of Milk Board funds (CX 1465(a)-(z)55). These regulations controlled many details of Milk Board activities including the type of automobile which could be purchased for use by the Board members and staff (RX 1465(f)), the amount of travel expenses which could be advanced (RX 1465(k)), the distribution of salary checks to employees (RX 1465(m)), and the rental of equipment (RX 1465(z)-4). Early in the operation of the Milk Board, after it took over the work of the ADA of California, the Bureau of Marketing found it necessary to insist on compliance with these rules, particularly regarding Board automobiles (Reuhl, Tr. 2296-97; Shahbazian, Tr. 4365-66; Lee, Tr. 2503, 2517), and out-of-state travel by Board members and staff (CX 1520; Shahbazian, Tr. 4366).

203. All contracts or agreements of the Milk Board for goods or services must be approved by the Department of Food and Agriculture. The Board or its manager may negotiate contracts or agreements, and recommend them to the Department, but without approval no payments will be made by the Department (Krade, Tr. 9811-12, 9817-18; Shields, Tr. 1867-68, 1884, 1901; Reuhl, Tr. 2119-20, 2316-19; CX 2076; RX 1243).

204. Responsibility for Department of Food and Agriculture review and approval of Milk Advisory Board activities is assigned to the Department's Bureau of Marketing which is within the Department's Division of Marketing Services (CX 1105; Shahbazian, Tr. 4167-69; Adams, Tr. 19448-49; Rominger, Tr. 11239-40). Review and approval of the Board's activities is performed by the Department's agricultural economist assigned to the market milk order. He may approve Board activities, or if in his judgment the situation requires, refer [116] the proposed action to his superiors in the Department of Food and Agriculture for approval (Shahbazian, Tr. 4227-28, 4331; Loe, Tr. 19273-74; Rominger, Tr. 11247-48). Delegation of approval authority of the Milk Board's activities to the agricultural economist assigned to the Board by the Department of Food and Agriculture is necessary because the Chief of the Department's Bureau of Marketing is responsible for supervision of from 35 to 40 marketing orders or programs in addition to the market milk order (Lee, Tr. 2512-13; Shahbazian, Tr. 2403-04; Krade, Tr. 6711).

205. The Milk Advisory Board by resolution recommended each year to the Director of Food and Agriculture the assessment rate to be applicable to its California dairymen members for the following year (CX 1180, 1183, 1184, 1188, 1189, 1191, 1193). Each year the

Director of the Department, as already stated, appointed those who would sit as members and alternates of the Milk Advisory Board (see, CX 1250, 1251, 1255). Also, every year, the next year's budget was submitted by the Milk Advisory Board to the Director for approval, subject to his revisions, including the budget for the Board's advertising and promotional program for milk consumption (Loe, Tr. 19344–45; see also, CX 1350, 1351, 1362).

206. In conducting advertising programs, as described, the Milk Advisory Board utilized the type of television, radio, outdoor and print methods and techniques commonly and currently in use in the advertising industry. The present Director of the California Department of Food and Agriculture testified that the Milk Advisory Board was "attempting to do something for their [*sic*] commodity, so we believe that they should have the same efficient type of programs that anyone else would want" (Rominger, Tr. 11253). Advisory boards may hire advertising agencies to plan and conduct promotional programs, and this was done by the Milk Advisory Board. Most of the advisory boards involved in commodity promotion have retained advertising agencies because "it would be foolish for the state to try and have all of the expertise that is needed in many areas in-house" (Rominger, Tr. 11251–52; Krade, Tr. 9821; Lee, Tr. 2504–05, 2510). An Assistant Director of Food and Agriculture explained the reason the Milk Advisory Board chose to hire Cunningham & Walsh (Krade, Tr. 9821):

> [A]n advertising agency was retained to do the day to day promotional work in an area in advertising for the Advisory Board just like any other business entity does; promotion and advertising through an advertising agency. [117]

207. As described earlier, the Milk Board's overall advertising and promotion program, and its budget proposal to pay for that program, had to be submitted annually for approval by the assigned agricultural economist and the chief of the Bureau of Marketing of the Department of Food and Agriculture (Portello, Tr. 2754; Shahbazian, Tr. 4187–88; 4191; Loe, Tr. 10273–75, 10280).

208. The Milk Advisory Board was also required to submit all specific advertisements to the Department of Food and Agriculture and obtain approval prior to dissemination (Lee, Tr. 2514; Portello, Tr. 2757–58, 2797; Warner, Tr. 4047). Responsibility for approval of specific advertisements, as was the case with other Milk Board activities, was delegated to the agricultural economist assigned to the Board. In the absence of any problem perceived by him, the agricultural economist had authority to grant approval of proposed advertisements without review by his superiors (CX 2301, 2302; Lee,

Tr. 2512–13; Warner, Tr. 3987–88, 4053–54, 4059–61; Shahbazian, Tr. 4188–91; Loe, Tr. 19279–80; Rominger, Tr. 11240, 11247). The economist, of course, as in other matters, could bring any questions concerning advertising the Board or its staff proposed to disseminate, or was disseminating, to the attention of his superior, the Chief of the Bureau of Marketing, and to those higher in the Department of Food and Agriculture, if the judgment and opinion of higher officials was thought to be required (Warner, Tr. 3999, 4005–06; Shahbazian, Tr. 4190–91, Krade, Tr. 6739, 11168; see also, Rominger, Tr. 11247–48). The Chief of the Bureau of Marketing testified that he was only shown Milk Board advertisements when the agricultural economist who normally approved the advertisements had questions about them (Shahbazian, Tr. 4189–91).

209. In reviewing Milk Board advertising the procedure set forth in the Department of Food and Agriculture's Bureau of Marketing policy letters has generally been followed (CX 1126, 2301). One of the Bureau's policy letters specifies that an advertisement is considered approved by the agricultural economist unless he states, within ten days, reasons why the advertisement cannot be formally approved (CX 2301, 2302, Shahbazian, Tr. 4226–28).

210. In January 1974, the Department of Food and Agriculture required the Milk Board to obtain approval by a recognized authority of "[a]ll copy for nutritional, medical, or economic claims or comparisons" disseminated in the Board's advertisements (CX 2301; Portello, Tr. 2777; Shahbazian, Tr. 4218–20). In fact, where nutritional or medical claims were contained in advertisements disseminated by the Milk Board and Cunningham & Walsh for milk or milk products, the practice [118] had long been followed to have such claims reviewed and approved by Dr. George Briggs, already described, Professor of Nutrition at the University of California at Berkeley, an internationally recognized authority in the field. Review of Milk Board advertisements from the standpoint of propriety, good taste and compliance with other aspects of California Department of Food and Agriculture policy, such as the prohibition against disparagement of other products or commodities, was also conducted by the agricultural economist assigned and his superiors, if deemed necessary (Lee, Tr. 2510; Ikari, Tr. 2662–63; Shahbazian, Tr. 4250–51). On occasion an advertisement or theme the Milk Board and Cunningham & Walsh proposed to disseminate or utilize was rejected by the Department of Food and Agriculture (Reuhl, Tr. 2335–37, 2342–43, 2454–55; Portello, Tr. 2771–72; Shahbazian, Tr. 4250–51, 4335; Krade 6746).

211. The Milk Advisory Board and its advertising agency,

Cunningham & Walsh, created the advertising they disseminated over television, radio, by billboard, and in print promoting the consumption of milk and milk products, except for certain ads or themes purchased from others. The California Department of Food and Agriculture reviewed the advertising disseminated by the Milk Advisory Board and Cunningham & Walsh, and in the great majority of instances did not interfere with its publication.

212. Neither the State of California nor the California Department of Food and Agriculture, however, required or directed that advertising generally, or that any particular advertisements be published.

213. The California Department of Food and Agriculture has promulgated a series of written guidelines for "Advisory Boards, Program Committees and Councils" known as "Bureau Policy Letters" or "BPL'S" (CX 2351; RX 1465). These policy letters cover a variety of matters relating, among other things, to contracts, fair employment practices, purchases of automobiles, expenditures for gifts, confidential records, employment of aliens, the use of prizes and awards, travel advances, etc. Regulations were also issued, as already described, for the guidance of advisory boards in fiscal matters (CX 2350; RX 1747).

214. With respect to advertising, the Marketing Act of 1937 prohibits advisory boards from disseminating false or unwarranted claims in behalf of any commodity, or the disparagement of the quality, value, sale or use of any [119] other commodity (Cal. Agri. Code § 58889(c). The Department of Food and Agriculture, as early as November 7, 1958, cautioned all "Advisory Board Managers" against exaggerated statements and disparaging comments about other commodities. The chief of the Department's then Bureau of Markets wrote (CX 1126(a)):

> In connection with carrying out advertising and sales promotion activities there appears to be some disposition to make exaggerated statements and possibly also disparaging statements about other commodities. It apparently arises from a desire to make attention catching statements.
>
> In view of this we remind you that the provisions of the California Marketing Act, authorizing advertising and sales promotion activities, prohibit the use of "false or unwarranted claims in behalf of any product" or claims which would "disparage the quality, value, sale or use of any other agricultural commodity."
>
> Volumes of favorable statements can be made about California agricultural products without indulging in false or unwarranted claims. Also, we believe that it is not necessary to disparage other commodities.
>
> As an operating matter we will look to Board management to keep within the letter and spirit of the above referred to provisions. In turn we would think that Board

Managers may very properly expect cooperation from their promotional agencies in this matter. If any material is developed that may be questionable please correct it yourself or consult with us if you wish. In the last analysis the use of any material that is inconsistent with the provisions of the Marketing Act is improper and might lead to legal attack against the Board or the Department. For those of you who may not have a copy of the Act, there is attached a copy of the advertising and sales promotion authorization provision of the Act. [120]

215. On January 8, 1974, the Bureau of Marketing issued "To All Advisory Boards, Program Committees and Councils" a revised set of "Guidelines for Advertising, Trade Promotion and Public Relations Claims" (CX 2301). Although the 1958 letter described in the preceding finding, was expanded upon to some degree, the 1974 letter essentially reiterated the prohibition of false or unwarranted claims. Claims "that could be considered misrepresentation" were prohibited, as were advertisements which discredited, disparaged, or unfairly attacked "competitors, competing products, other industries, professions, or institutions." Additionally, the policy letter of January 8, 1974, provided that all advertising copy containing nutritional, medical, or economic claims or comparisons, after approval by a recognized authority, must be submitted to the assigned economist of the Department of Food and Agriculture for formal approval on behalf of the Director (CX 2301(a)).

216. A representative of the Department of Food and Agriculture was required to be present at every meeting of the Milk Advisory Board as a matter of Department policy and practice. The agricultural economist assigned to the market milk order involved in this case performed this function with respect to the Milk Advisory Board (Reuhl, Tr. 2302–03; Shahbazian, Tr. 2383; Lee, Tr. 2504; Portello, Tr. 2745–46; Warner, Tr. 4027–33).

217. Although the Milk Producers Advisory Board has some of the attributes of a private association, viewed overall it is clear that the Board is, at the least, a quasi-state agency. Notwithstanding the Milk Board's character in that respect, it is also clear that its activities advertising and promoting the sale of milk were wholly commercial in nature. The Milk Board conducted these commercial activities on behalf of California's dairymen to increase their milk sales and profits. The advertising and promotional activities of the Milk Board were not different in any essential respect from the advertising and promotional activities commonly conducted by private trade associations. [121]

III

CONCLUSIONS

Respondents' Advertising

Respondents have insisted throughout that their "Every body needs milk" and "Milk has something for every body" advertising simply conveyed to the public a nutritional message that milk "was good for you" and that it was "needed" in the sense of being desirable and healthy (RPF, pp. 253–96; Resps' Post Hearing Memo. of Law, p. 11; Resps' Reply Memo. of Law, pp. 5–9; RPF, pp. 3–21). Consideration of respondents' advertising in its overall effect from the standpoint of the net impression and total message communicated, including what was said, what was shown, and what was implied and suggested, compels the judgment that the advertising went considerably beyond the mere representation that milk is "good for you," and was desirable and healthy to drink.

Reaching this judgement does not involve the application of an excessively literal standard. It is true that the word "needs" has shades of meaning. But respondents' advertising, in view of the role of milk in the national diet and American culture, communicated the message that milk was "needed" in a sense far different from, for example, "you need a new car."

Respondents' massive "Every body needs milk" campaign, and some of their "Milk has something for every body" advertisements, told people that milk was essential for proper nutrition and good health. Indeed, respondents' internal documents show that this was the purpose of the advertising. As described, in May 1971 the Creative Director of Cunningham & Walsh briefed the Milk Board's advertising committee concerning what later became the "Celebrity" campaign stating: "Message — with a quiet persuasive way, using high degree truth in advertising, give reasons why milk is needed by everybody. Break down the prejudice that milk can be dropped when a teenager" (CX 860(b)). The market studies and copy tests of respondents show that this message was, in fact, [122] communicated to the public. The "verbatims" contained in this market research show that members of the public received that communication (RX 1454). There was no communication, however, that milk was essential to life, as complaint counsel contend, but there was a communication that milk was a nutritional requirement for good health, including optimum strength and vitality. The representation that milk was a nutritional requirement for everyone for a proper

diet and good health obviously contained the representation that milk was beneficial for all.

Some of respondents' advertisements conveyed the additional message that milk was beneficial for all "in large or unlimited quantities." This representation was contained in ads disseminated widely throughout California in print and over TV and on radio. In a print ad published in many newspapers, Mark Spitz is pictured holding a glass of milk. Over his picture is the caption "How much milk do I drink? Oh, maybe three or four glasses at each meal" (CX 6). In a radio continuity Pat Boone told the audience that when he was growing up he drank "a quart of milk a day per meal" which is three-quarters of a gallon of milk per day (CX 52). In another radio continuity Vida Blue, baseball star, told listeners that he drank "two and a half gallons of milk a day" (CX 57(a)). In still another, Vida Blue repeated the statement that he drank "two and a half gallons per day," adding that milk played a vital part in his athletic success (CX 58(a)). Karen Valentine told the radio audience that the rock group her husband had gotten involved with were drinking so much milk, they were drinking them "out of house and home" and that when she went to hear them play they had jugs "this big of milk" indicating very large size (CX 63). In a TV commercial Vikki Carr described herself and her family, as she grew up, as "Milk-a-holics," they all drank so much milk (CX 105(a)). [123]

The totality of these ads suggested that amounts of milk far larger than usual and normal amounts of a glass or so at a meal could be consumed by all persons beneficially. These ads were not created accidentally, there was a purpose behind them. True, the ads did not "recommend" that, for example, people emulate Vida Blue and drink "two and a half gallons" or that they drink "all they can." But they did suggest to the public that milk intake not be limited to an amount of a glass or so at a time, and that it was beneficial to consume far larger amounts. In the language of the complaint the ads did suggest that the consumption of milk was beneficial "in large or unlimited quantities."

This representation was directed to the California population generally, of which 20% to 25% are lactase deficient. Although the overwhelming majority of lactase deficient persons can consume beneficially a glass of milk at a time, two, three, four or more glasses at one time may have the capacity to cause significant symptoms in such persons. The cumulative import of all of the studies and articles is sufficient to establish the probability that this is true. The greater the quantity of milk consumed beyond a glass at one time by lactase deficient persons, the higher the likelihood that diarrhea may occur.

Specifically encouraging or suggesting that the lactase deficient population of California drink at one time large or unlimited amounts of milk was misleading and unfair in view of the capacity of such amounts of milk to cause significant symptoms in a substantial portion of this population.

Medical and scientific knowledge was sufficiently developed and disseminated by early 1970 to charge the Milk Board and Cunningham & Walsh with notice that large intakes of milk at a time might well cause significant symptoms in substantial numbers of lactase deficient persons. By 1970 articles had been published in a variety of authoritative medical and scientific journals associating the ingestion of milk and symptoms in lactase deficient persons, and indicating that lactase deficiency was not uncommon in the population. See CX 405, 682, published in 1966 in the *Journal of the American Medical Association;* CX 489, 683 and 490, published in 1967 and 1968 in the *New England Journal of Medicine;* CX 484, published in 1965 in the *American Journal of Medicine;* CX 440, 449, 519, 661 and 669, published between 1959 and 1966 in *Lancet;* CX 458, 527, 663, published between 1963 and 1965 in *Gastroenterology;* and CX 403 and 407, [124] published in 1969 in the *American Journal of Clinical Nutrition.* Additionally there were non-scientific articles in media of general circulation such as the *New York Times* issue of October 15, 1971 (RX 1508), *McCalls,* issue of September 1971 (CX 431), and programs over TV, CX 205 and 635, in March 1972, raising the question of the advisability of milk ingestion in large or unlimited amounts at a time by lactase deficient persons. Although many statements in these publications were scientifically inadequate for broad conclusions about milk drinking in general by lactase deficient persons, and many statements in the articles in media of general circulation, and over TV or radio, were exaggerated and even alarmist, the medical information available in early 1970 was sufficient to put the Milk Board and Cunningham & Walsh on notice that large milk intakes far beyond a glass at a time had the capacity to cause more than simply mild, insignificant symptoms among many lactase deficient persons.

Respondents' advertising promoting the consumption of milk was not "unfair, false, misleading and deceptive," however, except to the extent that representations were communicated to the 20% to 25% of the California population which is lactase deficient that milk consumption in large or unlimited amounts was beneficial.

The portion of the California population experiencing symptoms that might be regarded as significant from 8 ounces of milk is probably well under 1% of the population of the state over 10 years

of age. In the opinion of the undersigned, it would be unreasonable to judge respondents' advertising to be "unfair, false, misleading and deceptive" because of this less than 1% segment of the population.

Even if respondents' advertising were judged from the standpoint of this small fraction of the population, however, the advertising of the Milk Advisory Board and Cunningham & Walsh was still not "unfair, false, misleading and deceptive." The symptoms experienced by this small segment of the population are not health-threatening. The bulk of those who find the symptoms to be bothersome enough that they would avoid them, have learned to associate symptoms and milk drinking, and to limit their milk intake or to avoid milk. Rather than being detrimental to the health of lactase deficient persons, milk consumption provides essential nutrients not otherwise generally obtained in the absence of milk consumption. The probabilities are very high that individuals who do not consume milk will suffer from a calcium deficiency and very likely from a deficiency of riboflavin (Dr. Paige, Tr. 8900; Dr. Briggs, Tr. 7959–60). Dr. Latham from Cornell University, internationally recognized as an authority in the field of nutrition, as described earlier, testified that within [125] the context of the United States diet it is quite difficult for individuals to get adequate amounts of essential nutrients, particularly calcium and riboflavin, without the consumption of milk (Tr. 9710).

Although it is theoretically possible to obtain all the nutrients in milk from other sources, as made clear earlier herein, as a practical matter for the ordinary person who does not make an issue of studying foods and planning his or her food intake with care, milk is "essential, necessary and needed." This is just as true for persons with "symptomatic lactose intolerance" as it is for others. Asians, Hispanics from Mexico, central or South America, Blacks, as well as Caucasians who are subject to "symptomatic lactose intolerance" must have calcium, riboflavin and the other nutrients present in milk for proper nutrition and good health. Milk in usual and moderate amounts sufficient to supply the body's needs of these nutrients is not detrimental, but is beneficial for these persons. The only possible exception raised by the evidence to this conclusion would be where a person with "symptomatic lactose intolerance" experiences true diarrhea, not simply a "soft stool," from ingestion of 8 ounces of milk at a meal. Such an event would be extremely rare if, indeed, it would ever happen. Inclusion of diarrhea as a symptom in a few reports in the literature cannot be accepted as conclusive proof that any significant number of lactase deficient persons will experience true diarrhea from 8 ounces of milk. One study, or even a

few studies, are not sufficient to establish a scientific conclusion, particularly when not designed to determine the particular conclusion at issue. Rigorous scientific tests are required, and a pattern in such tests must be present before it is responsible to reach radical conclusions about symptoms from the consumption of moderate amounts of milk in the population at large.

More broadly, and in the foregoing vein, the undersigned must note that to reach conclusions which might have the tendency or capacity to lower seriously the nutritional quality of the diets of large numbers of lactase deficient Asians, Hispanics, Blacks and others, on the basis of inadequate studies, studies not rigorously controlled, studies defective in one way or another, or studies not specifically designed to determine, without uncertainty of any kind, the incidence and significance of symptoms from milk drinking would be highly irresponsible.

In resolving the issues relative to lactase deficiency and milk drinking presented by this case, the undersigned has relied on what in his judgment are the most reliable medical studies and articles, and the most reliable and [126] credible expert opinion. To reach a contrary conclusion that lactase deficient persons experience a higher incidence of more serious symptoms than determined in this decision would require, in the opinion of the undersigned, much more reliable and convincing studies than are present in this record. It would not be in the public interest to take action which might discourage milk consumption and bring about poorer nutrition among Asians, Hispanics, Blacks and others, without the most careful, thoroughly controlled medical studies, specifically designed and undertaken for the purpose, which demonstrate, without any uncertainty, that the incidence of symptoms from milk drinking by lactase deficient persons is much higher, and the symptoms much more significant, than the law judge has found. Such studies are not present in this record.

As described in detail earlier in this decision, the evidence on the proportion of lactase deficient persons having symptoms from the ingestion of an 8 ounce glass of milk, and the significance of such symptoms, is in conflict. The law judge has resolved this conflict after weighing all of the studies and the testimony of the expert witnesses, as just stated, and has concluded that the preponderance of the evidence establishes that lactase deficient persons with symptoms of any significance from drinking 8 ounces of milk constitute in all likelihood considerably less than 1% of the California population, in fact, about .7% (see *e.g.*, Findings 110–111, 132, 134).

This resolution of the evidence is based on the judgment that particular studies and expert testimony have greater reliability and probative value than other studies and testimony. Without that judgment the evidence is in such unreconcilable conflict that there is a failure of proof, and the undersigned specifically so finds. In that event, the allegations of Paragraph Nine of the complaint fail, except for the allegation respecting the consumption of large or unlimited quantities of milk, because the allegations are not sustained by a preponderance of reliable, probative and substantial evidence on the record as a whole, as required by the Commission's Rules and § 556 of the Administrative Procedure section of the U.S. Code, 5 U.S.C. 556(d).

Beyond these considerations, the advertising of the Milk Board and Cunningham & Walsh, except for that with respect to large or unlimited quantities, conveyed the same representations as contained in the dietary advice and recommendations disseminated over decades by the Federal government itself through the Department of Agriculture, and other federal agencies, and through a host of state, local [127] and private agencies and organizations, upon the prompting of the Federal government or following its example. This advice to the public was pervasive, commencing in early grades for school children and extending into a whole variety of activities where advice could be given to the nation's public on proper eating habits.

If all that has been written in this initial decision were put aside and opposite conclusions reached, the dissemination throughout the country by the Federal government and other influential bodies, continuing to the present day, of dietary advice not different in essential message from that communicated to the public by the Milk Board and Cunningham & Walsh, would render the entry of a cease and desist order in this case unjust and unwarranted.

The Department of Agriculture is the leading agency in the Federal government for the education of the public in nutrition (Dr. Page, Tr. 8807-11; RX 1624(d)-(f)). For the past 50 years the Department of Agriculture has promulgated food guides for good nutrition for the nation's public (Dr. Page, Tr. 8818-22, 8895; RX 1618(a)-(j)). Since 1941 the Department of Agriculture food guides have been based on the RDAs of the National Academy of Sciences, translating RDAs into terms of foods understandable to the general public (Dr. Page 8818-22; RX 1618(e)).

Going back to WW II, the food guides were known as "Basic Seven," and were widely disseminated via mass media and other channels of communication to help people eat wisely during wartime

conditions. Milk has always been included in the Department of Agriculture's food guides as a separate group (Dr. Page, Tr. 8831–32).

The current food guide of the Department of Agriculture is known as the "Basic Four" (Dr. Page, Tr. 8821–22). An example of a Federal government publication incorporating the "Basic Four," and giving dietary advice to the public, is *Food for Fitness - A Daily Guide,* which has been circulated widely with only minor changes since 1958 (RX 347; Dr. Page, Tr. 8843). The "Basic Four" recommendation of RX 347, first published in 1958 and slightly revised in 1973, and circulated throughout the country, is reprinted herein (RX 347(a)).* It instructs the public for good nutrition and for good health to select foods every day from four groups, "Milk Group," "Meat Group," "Vegetable-Fruit Group," and "Bread-Cereal Group." Milk is stated to be a dietary *requirement* every day "for everyone;" adults are admonished to drink "2 or more cups" every day. *Food Is More Than Just Something To Eat,* Department of Agriculture Bulletin No. 216, published in July 1976, and massively disseminated in cooperation with advertising agencies and trade associations, communicates [129] to this day the same dietary advice to the public (RX 356). The Department of Agriculture disseminated dietary guidance to the public specifically advising, *in haec verba,* that every one *needs* milk, for example, in *Getting Enough Milk* dated 1965, also reproduced (RX 395(b)–(c)).* In RX 345 *"Milk in Family Meals": A Guide for Consumers,* published in 1972, and reprinted in this decision,* the opening message was "Milk is a basic food that everyone in the family *needs* every day" (Emphasis added). State agencies disseminated similar material advising that everyone *needed* milk every day (RX 346, 393–94). This dietary advice was also disseminated in Spanish by the Department of Agriculture and state agencies (RX 339, 360, 361, 371, 373, 374). See also, *Food Guide for Older Folks* (RX 350(f)); *Daily Food Guide, Some Choices for Thrifty Families* (RX 343(a), (b)); *Food and Your Weight* (RX 369(i); and Dr. Page, Tr. 8896). An example of the dietary advice disseminated by private agencies is contained in *Diet & Dental Health* published by the American Dental Association (RX 386). It states categorically "Everyone needs MILK every day" (RX 393(d)). See also the American Medical Association publication *Eat Foods From Each Group Daily* (RX 384).

The "Basic Four" food guide, in which milk and milk products is one of the four groups required in the diet of everyone every day, is the Department of Agriculture's key tool for teaching proper eating habits to the nation's public (Dr. Paige, Tr. 8850–51). The "Basic Four" food guide is "as official as anything could get" (Dr. Briggs, Tr. 7689–90). Not only is it used in U.S. Department of Agriculture

publications, but by virtually all other federal, state and private agencies and organizations providing advice to the public on good eating habits. See *Facts about Nutrition,* RX 348(p), (q); *What You Should Know About Grade A Milk,* RX 1517; *Eat Foods From Each Group Daily,* already mentioned, published by the American Medical Society, RX 384; *Food, A Guide For Every Day, the 4–4–3–2 Way,* RX 339.

Communications in official U.S. Government publications recommending milk as a dietary requirement and telling the public that all individuals need milk every day such as "adults * * * sometimes underestimate their need for milk" "adults, all ages: 2 or more cups [daily]" (RX 395), published in 1965, "Some Milk Every Day For Everyone" (RX 347(c)), published in 1966, "Milk is a Basic Food that Everyone in the Family Needs Every Day" (RX 345(c))*, published in 1972, and "Amounts Recommended: Some milk every day for everyone" (RX 356(y)), published in 1976, are the same representations contained in respondents' advertising. Respondents' advertising did not take these representations and messages [133] of the federal government and the Department of Agriculture as to the need for milk "out of context." The Milk Board's advertising conveyed to the public, with the exception already noted respecting large or unlimited quantities, the identical messages communicated to the public by the Federal government. These dietary recommendations were being made to the California public as well as to the rest of the nation by the Federal government long before respondents began their "Every body needs milk" campaign, and continued to and during the trial of this proceeding.

The U.S. Department of Agriculture and other U.S. agencies obviously were, and are, aware of milk allergy and lactose intolerance to the same degree as the Milk Board and Cunningham & Walsh, yet circulated and continue to circulate dietary advice to the public, including lactase deficient persons and population groups, that everyone needs milk every day. No revisions have been made and the dietary advice, as stated, continues to date. Dr. Page, an expert in nutrition from the Department of Agriculture, testified in this proceeding that she did not believe that any of the Department's publications needed revision to reflect the existence of milk allergy or "symptomatic lactose intolerance" (Tr. 8882–87; CX 643(e)).

Under the circumstances, an order in this proceeding would be contradictory to what the Federal government has been telling the public for decades. An order would be wrong if that advice is proper, and an order would be unjust if the dietary advice of the Department of Agriculture and other federal agencies is incorrect.

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*See Appendix.

Beyond the foregoing, no order is appropriate in this case because an order would involve an unnecessary exercise of federal power over activities of an instrumentality under the control of the people of California. Although as concluded in this initial decision, the Federal Trade Commission has the authority to review the advertising of the Milk Board, and to issue an order, if necessary, no order is necessary in this proceeding. The California Milk Producers Advisory Board is completely within the control of the people of California through their elected representatives. The legislature of the State of California enacted legislation permitting the creation of the Milk Board and can enact legislation at any time putting an end to its existence. The Milk Board is under the supervision of the California Director of Food and Agriculture. The Director of Food and Agriculture, as an appointed official, is responsible to the [134] Governor of California. In an ultimate sense, therefore, the Governor of the State of California has full and complete supervision over the activities of the Milk Board.

There is no evidence that supervision over the Milk Board and its advertising has been abdicated by California's elected representatives or by its appointed officials. Nor have California's elected representatives or appointed officials indicated a lack of concern respecting advertising or promotional practices of the Milk Board, or an intent to permit unfair, false, misleading and deceptive advertising. On the contrary, such advertising is specifically prohibited and there is every indication that California's appointed officials and elected representatives have been, and are, vigorous in preventing such advertising and promotional practices.

Added to these facts is the fact that the subject advertising, regardless of how it is viewed, has been discontinued for almost a half a decade. There is no likelihood whatever that it will be resumed in view of the continued scrutiny of the Milk Board by California's governmental officials and elected representatives. These circumstances are in contrast to the situation which prevails in the case of private corporations which are not so readily amenable to public control. There can be no question, in the opinion of the undersigned, that an order in this proceeding is not necessary. There is no public interest in an order in this proceeding, no matter what view is taken of the Milk Board's advertising.

Jurisdiction

Respondents argue that the Commission lacks jurisdiction over the Milk Producers Advisory Board because it is neither a person nor a corporation within the meaning of the Federal Trade Commission

Act. In the opinion of the undersigned, this argument is without merit. Section 4 of the Act defines a "corporation" as:

> * * * any company, trust, so-called Massachusetts trust, or association, incorporated or unincorporated * * * which is organized to carry on business for its own profit or that of its members * * *

The record is clear that the Milk Board was formed to promote the sale of milk and in doing so to promote the economic well-being of California's milk producers (California [135] Agricultural Code, § 58654; CX 1110(z–84)). The fact that the Milk Board is not literally a profit making body does not exempt it from the coverage of the Act. *Community Blood Bank* v. *Federal Trade Commission,* 405 F.2d 1011, 1017 (8th Cir. 1969). The Milk Board was a vehicle for increasing the profits of the California dairy industry and its assessment paying members. This is sufficient for the purposes of the Act. *Federal Trade Commission* v. *National Commission on Egg Nutrition,* 570 F.2d 157 (7th Cir. 1977), *cert denied,* 99 S. Ct. 86 (1978). Indeed, the activities of the Milk Advisory Board can fairly be described as wholly commercial advertising and promotion to increase milk sales, essentially comparable to the advertising and promotional activities which might be anticipated from a private trade association.

The Milk Board argues that it is an agency of the State of California whose activities are beyond the reach of the Commission's jurisdiction because of the so-called "state action" exemption enunciated in *Parker* v. *Brown,* 317 U.S. 341 (1943). In *Parker* v. *Brown,* the Supreme Court exempted from the operation of the Sherman Act a "prorate" marketing program for raisins mandating production quotas and price maintenance through an industry board authorized by the State of California and supervised by the California Department of Food and Agriculture. The express purpose of the California program was to alleviate an oversupply of raisins by restricting competition among raisin growers. 317 U.S. at 346. The marketing program and a committee to carry out the program, were established pursuant to the California Agricultural Prorate Act.

Confronted with the need to resolve conflicting state and federal law, the Supreme Court held that the raisin program, concededly anticompetitive, but considered by the California legislature to be necessary for the survival of California's raisin industry, was not subject to the Sherman Act. The Court found that Congress in enacting the Sherman Act had not intended to reach official "state action" stating, 317 U.S. at 352:

> The State in adopting and enforcing the prorate program made no contract or agreement and entered into no conspiracy in restraint of trade or to establish

monopoly but as sovereign imposed the restraint as an act of government which the Sherman Act did not undertake to prohibit. [136]

The application of *Parker* v. *Brown* hitherto has always occurred in situations where, contrary to the policy of the Sherman Act, a state has directed the displacement of competition for a public purpose in achieving an objective thought to be necessary for the well-being of its industries or its citizens. The doctrine has never been applied in a case involving allegations of false advertising, and it is difficult to conceive of the application of the doctrine in such a case.

The Sherman Act established a national policy against monopoly and in favor of free competition. The Federal Trade Commission Act established a national policy against false advertising. It is conceivable that there may be economic situations where a state might properly conclude that the over-riding public interest required the regulation of competition in particular industries, creating the conditions for a possible exemption from the policy of the Sherman Act. But there can be no legitimate state interest in freeing its industries or citizens from the operation of the Federal Trade Commission Act to permit false advertising. In short, where allegations of false advertising are concerned, there can be no "state action" exemption to the national policy incorporated in the Federal Trade Commission Act.

The criteria for the application of the *Parker* v. *Brown* doctrine to this proceeding are lacking in any event. The exemption of *Parker* v. *Brown* is a narrow one. To secure a "state action" exemption in this case respondents must demonstrate:

1. The advertising of the Milk Board was compelled, rather than just permitted, by the State of California acting in its sovereign capacity.
2. The Federal Trade Commission Act directly conflicts with the regulatory scheme of the State of California which mandated the advertising in controversy.

These criteria have not been met this proceeding.

The dissemination of advertising is not an activity mandated by the State of California. The state permitted, but did not command, the advertising of milk by the state's milk producers through the Milk Advisory Board. Notwithstanding the foregoing, it is certainly true that no [137] particular type of advertising was mandated, and certainly not false and misleading advertising which would conflict with the Federal Trade Commission Act. The Court in *Goldfarb* v.

Virginia State Bar, 421 U.S. 773 (1975), found compulsion by the state was integral to a "state action" exemption. The Court stated that the threshold inquiry when a "state action" defense is raised is whether the questioned activity is required by the state acting as sovereign. Finding the use of minimum fee schedules by the state bar to be violative of the Sherman Act, the Court said (421 U.S. at 791):

> It is not enough that, as the County Bar puts it, anticompetitive conduct is "prompted" by state action; rather, anticompetitive activities must be compelled by direction of the state acting as sovereign.
>
> The fact that the State Bar is a state agency for some limited purposes does not create an antitrust shield that allows it to foster anticompetitive practices for the benefit of its members.

In the case of the Milk Board, the questioned activity is advertising which is alleged to be false and misleading under the Federal Trade Commission Act. When the Milk Board came into existence, the State of California did not require that advertising in general nor that any particular advertisements or types of advertisements be disseminated by it, nor did the state require those activities to continue. Mere state authorization, approval, or encouragement of an acceptable activity, such as advertising, confers no "state action" immunity from federal laws.

Provisions of the California Marketing Act of 1937 subjecting raisin growers to production and pricing restraints represented a command of the state, not present in this proceeding. Recent Supreme Court cases have followed the standard of *Goldfarb* that an exemption will not apply when the state has not compelled particular activities. *City of Lafayette* v. *Louisiana Power & Co.,* 435 U.S. 389 (1978); *Bates* v. *State Bar of Arizona,* 433 U.S. 350 (1977); *Cantor* v. *Detroit Edison Co.,* 428 U.S. 579 (1976); *Goldfarb* v. *Virginia* State Bar, 421 U.S. 773 (1975). **[138]**

Relying on *Asheville Tobacco Board of Trade, Inc.,* v. *Federal Trade Commission,* 263 F.2d 502 (4th Cir. 1959), complaint counsel contend the state action defense is inapplicable because of the absence of adequate state supervision of the Milk Board and its advertising. The *Asheville* decision, however, did not turn on the degree of supervision over the Tobacco Board exercised by the state of North Carolina. Rather, the court cited the lack of supervision by North Carolina to demonstrate that there was no compulsion by the state on the Tobacco Board to perform the acts in question. The relevant inquiry in *Asheville,* and with respect to the Milk Board, is whether the state mandated the actions, not whether they exercised control and supervision over the actions.

The Milk Board's activity fails to qualify for the state action exemption on a second ground. The state action exemption was created in *Parker* v. *Brown* to reconcile conflicting state and federal directives. Here there is no conflict between the Federal Trade Commission Act and California law. Unlike the mandated anticompetitive programs of the California Agricultural Prorate Act in *Parker* v. *Brown* which by their very nature directly conflicted with the Sherman Act, advertising under the Agricultural Code of California plainly does not by its very nature conflict with the Federal Trade Commission Act. It is obviously not advertising which is prohibited by the Federal Trade Commission Act, rather it is a particular type of advertising which is false or has the capacity to mislead that is prohibited.

Indeed, there is no conflict in this case between state and federal law because California law and the Federal Trade Commission Act both prohibit unfair and deceptive advertising. In *Cantor,* the Court rejected a state action defense noting, *inter alia,* that the state regulatory program was not inconsistent with federal directives. The Court commented that the "mere possibility" of a conflict was an insufficient basis for implying a "state action" exemption, 428 U.S. at 596. See also, *United States* v. *Philadelphia Nat. Bank,* 374 U.S. 321, 350–251 (1962). In the instant case not only is there no conflict between federal law and the state regulatory program, there is complete accord. The California Agriculture Code § 58889, (CX 1110(z–91)) provides: [139]

> No advertising or sales promotion program shall be issued by the director which makes use of false or unwarranted claims in behalf of any such product, or disparages the quality, value, sale, or use of any other commodity.

Exemption of the Milk Board's advertising of milk from regulation by the Commission is clearly not necessary to enable the Milk Board to carry out the activities authorized by the California legislature. Review by the Commission of the advertising and the prohibition of "unfair, false, misleading and deceptive" advertising, if any, will not interfere with or prevent the advertising and promotion of milk as authorized by the California legislature. The Milk Board can advertise and promote milk effectively through truthful advertising. Accordingly, there is no need in this case to invoke the state action exemption to protect the state of California's sovereignty over regulatory activities essential to its governmental function.

The final basis on which jurisdiction is contested is the failure to join the state of California and its Director of Food and Agriculture on the ground that they are indispensable parties. This contention is

without foundation. Neither the State of California nor the Director are indispensable parties. In *Williams* v. *Fanning,* 332 U.S. 490 (1947), the Court held that a superior governmental official was not an indispensable party where the remedy did not require such official to perform an affirmative act. If any order were to be issued in this proceeding it would bind only the Milk Advisory Board and Cunningham & Walsh. Furthermore, an order binding the Milk Advisory Board and Cunningham & Walsh would not be unenforceable and of no effect. So long as the Milk Board is in existence it may be compelled to observe the requirements of an order. Neither the Director of Food and Agriculture nor other state officials could lawfully attempt to prevent the Board from observing the requirements of an order.

The fact that neither the Director nor the state have been named parties cannot cause either prejudice. The state has been granted limited intervention on the jurisdictional issue. Both the Director and the state have been permitted to raise issues, if desired. No affirmative action is sought through this proceeding by either the State of California or its Director of Food and Agriculture. Nothing in this proceeding can alter their position or legal rights for the worse. Nor can there be any prejudice to the Milk Board or Cunningham & Walsh due to the fact that neither the Director nor the state are parties. **[140]**

Final

The Federal Trade Commission has jurisdiction over the California Milk Producers Advisory Board and Cunningham & Walsh, Inc. for the purpose of reviewing its advertising and promotional practices and preventing unfair or deceptive acts or practices in commerce.

The California Milk Producers Advisory Board is a corporation and a person within the meaning of the Federal Trade Commission Act, organized, existing and doing business under and by virtue of the laws of the State of California. At all times relevant hereto, it has been engaged in commerce within the meaning of Section 5 of the Federal Trade Commission Act, and has been engaged in and has caused the dissemination of advertisements through various means in commerce.

Cunningham & Walsh, Inc. is a corporation organized, existing, and doing business under and by virtue of the laws of the State of New York. At all times relevant hereto, it has been engaged in commerce within the meaning of Section 5 of the Federal Trade Commission Act, and has been engaged in the dissemination and has

caused the dissemination, of advertisements through various means in commerce.

Neither the State of California nor its Department of Food and Agriculture are indispensable parties to this proceeding.

With the exception of the advertising referred to in the next paragraph, none of respondents' advertising challenged in the complaint has been unfair, false, misleading and deceptive.

It was unfair and misleading for respondents to represent to lactase deficient persons, who constitute a substantial segment of the population, that the consumption of large or unlimited quantities of milk at a time is beneficial. Ingestion of large or unlimited amounts of milk at one time by such persons may cause symptoms which are troublesome or discomforting, although not health threatening.

There is public interest in this proceeding, but there is no public interest in the issuance of an order against the California Milk Producers Advisory Board or its agent Cunningham & Walsh. [141]

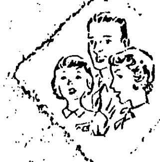
For the reasons stated in this initial decision, issuance of an order against the California Milk Producers Advisory Board and its agent Cunningham & Walsh, Inc. is unnecessary, unwarranted and inappropriate.

The complaint should be, and hereby is, dismissed.

APPENDIX

FOOD FOR FITNESS

A Daily Food Guide



MILK GROUP

Some milk for everyone

Children under 9 . 2 to 3 cups
Children 9 to 12 . 3 or more cups
Teenagers . . . . 4 or more cups
Adults . . . . . . 2 or more cups

MEAT GROUP

2 or more servings

Beef, veal, pork, lamb, poultry, fish, eggs

As alternates—dry beans, dry peas, nuts

FEDERAL TRADE COMMISSION
Docket No. 8738 RESPONDENT Exhibit No. 347
In the Matter of CMPA B
Date 11/6/78 Reporter N.B.

VEGETABLE FRUIT GROUP

4 or more servings

Include—
A citrus fruit or other fruit or vegetable important for vitamin C
A dark-green or deep-yellow vegetable for vitamin A—at least every other day
Other vegetables and fruits, including potatoes

BREAD CEREAL GROUP

4 or more servings

Whole grain, enriched, or restored

Plus other foods as needed to complete meals and to provide additional food energy and other food values

RX-347A

APPENDIX

getting enough MILK

MILK . . . *one of the best foods*

Why you need milk

Milk contains many valuable nutrients. It is especially important for these three:

- Calcium—a mineral needed throughout life for healthy bones.
- Riboflavin—a B vitamin, one of the essential nutrients for healthy skin and nerves. It also helps body cells to use other nutrients carried to them by the blood.
- Protein—the main material needed for building and repairing all body tissues.

Many people get too little of these three nutrients for their best nutritional health.

It's hard to get enough calcium and riboflavin, in particular, without a good deal of milk. In this country's food supplies, milk provides three-fourths of all the calcium, nearly half of the riboflavin, one-fourth of the protein.

Much of the work that nutrients do for your body depends on their getting together with other nutrients. One reason why milk is so excellent a food is that it contains many different nutrients in favorable proportions that can readily form efficient work teams for your body's nutrition.

2

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APPENDIX

How much milk is enough?

Nutritionists consider calcium needs chiefly when they figure the amounts of milk to have daily for good nutrition.

The need for milk increases from childhood through the teens as more calcium is required to keep up with the needs of the growing body. Adults can get along with less milk than teenagers, but they sometimes underestimate their need for milk. Expectant mothers and nursing mothers need extra milk for calcium.

Here are the amounts of milk recommended by nutritionists for use daily:

Children, under 9 years: 2 to 3 cups (1 pt. to 1½ pt.)
Children, 9 to 12 years: 3 or more cups (1½ pt. or more)
Teenagers: 4 or more cups (1 qt. or more)
Adults, all ages: 2 or more cups (1 pt. or more)
Expectant mothers: 3 or more cups (1½ pt. or more)
Nursing mothers: 4 or more cups (1 qt. or more)
(Expectant teenage mothers and nursing teenage mothers need more milk than other teenagers.)

Milk products, such as cheese and ice cream, and prepared dishes made with milk can provide some of this quota. So can fluid or dry skim milk, buttermilk, or evaporated milk.

How to estimate milk you get in meals

With a little easy arithmetic, you can get a pretty good idea of how much milk you are getting from milk products and prepared dishes, along with the amount of milk you may drink. If you tally the total in a few days' meals, you can judge how well you measure up to the quota recommended by nutritionists.

On the basis of the calcium they provide, the following are alternates for 1 cup (½ pt.) of milk:

1½ ounces of Cheddar cheese
1 pound of cream cheese
11 ounces of cottage cheese
1⅔ cups of ice cream
1 cup of ice milk

In food prepared with milk, each serving can provide:

½ to 1 cup of milk in creamed soups
¼ to ½ cup of milk in scalloped or creamed vegetables, fish, eggs, or meat
¼ to ⅔ cup of milk in desserts such as puddings, custards, and cream pies

MILK IN FAMILY MEALS: APPENDIX

A Guide for Consumers

Milk is a basic food that everyone in the family needs every day.

Milk is an excellent source of calcium, a mineral that helps form bones and teeth and keeps them strong. The protein in milk builds and repairs body tissues, helps the body fight infection, and supplies energy. Milk is rich in riboflavin, a B vitamin that helps keep skin healthy and vision clear. Other nutrients are in milk, too—additional vitamins and minerals, fat, and sugar.

With all this, milk is moderately low in calories. One cup (8 fluid ounces) of fresh whole milk contains about 160 calories. One cup of skim milk contains about 90 calories.

This bulletin contains information about milk and milk products—cream, ice cream, and other frozen desserts. For information on cheese, see Home and Garden Bulletin 112, "Cheese in Family Meals: A Guide for Consumers," available from U.S. Department of Agriculture, Washington, D.C. 20250. Please include ZIP Code with your address.

The simplest way to get milk into family meals is to serve it as a beverage. You have a wide choice to suit the tastes of your family—fresh whole milk, fresh skim milk, cultured buttermilk, chocolate or flavored milk, milk made from whole or nonfat dry milk, and canned milk products. Whatever the kind, chill the milk thoroughly before serving to enhance the flavor.

THE MILK YOU NEED

How Much Milk?

Nutritionists recommend the following amounts of milk every day:

	8-fluid-ounce cups
Children under 9	2 to 3.
Children 9 to 12	3 or more.
Teenagers	4 or more.
Adults	2 or more.
Pregnant women over 19	3 or more.
Nursing mothers over 19	4 or more.

A mother-to-be or a nursing mother in her teens needs more milk than other teenagers.

The recommended daily amounts of milk are based on the amount of calcium that milk supplies. Milk is the main food source of calcium; in fact, it's hard to get enough calcium unless milk in some form is included in each day's meals.

Getting a Day's Supply

To give each member of your family the recommended amount of milk each day—

- Serve milk as a beverage.

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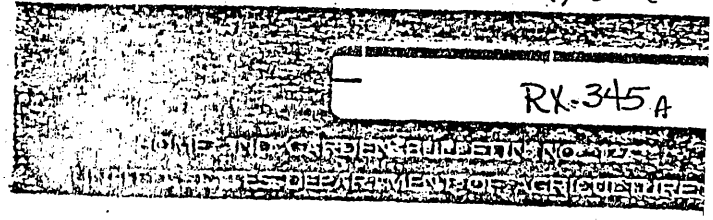

FINAL ORDER

The administrative law judge filed an initial decision dismissing the complaint in this matter on July 31, 1979. No appeal from the initial decision having been filed and the Commission having determined that the case should not be placed on its own docket for review and that the initial decision should become effective as provided in Rule 3.51(a) of the Commission's Rules of Practice (16 C.F.R. 3.51(a)),

It is ordered, That the initial decision shall become effective on September 24, 1979.