United States Department of Agriculture Animal and Plant Health Inspection Service Veterinary Services

# Part II: Feedlot Health Management Report





## Acknowledgements

This report has been prepared from material received and analyzed by the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS).

The Cattle on Feed Evaluation was a cooperative effort between State and Federal agricultural statisticians, animal health officials, university researchers, and extension personnel. We want to thank the National Agricultural Statistics Service (NASS) enumerators and State and Federal Veterinary Medical Officers (VMO's) who visited the farms and collected the data for their hard work and dedication to the National Animal Health Monitoring System (NAHMS).

The roles of the producer, Area Veterinarian in Charge (AVIC), NAHMS Coordinator, Veterinary Medical Officer (VMO), Animal Health Technician (AHT), and NASS enumerators were critical in providing quality data for this report. All participants are to be commended for their efforts, particularly the producers whose voluntary efforts made the study possible.

A. Stot. Dr. Al Strating, Director Centers for Epidemiology & Animal Health

	Table of Contents
Introc	luction
. Pop	pulation Estimates
A.	Antibiotics in Feed and Water
	1. Use of an antibiotic as a health or production management tool
	2. Cattle given an antibiotic as a health or production management tool
	3. Duration of antibiotic use as a health or production management tool 4
	4. Type of antibiotic used in feed or water as a health or production
	management tool
B.	Antibiotic Injections - Long-lasting 6
	1. Cattle given a long-lasting antibiotic between arrival and exit 6
	2. Operations by route long-lasting antibiotic was given
	3. Operations giving all long-lasting antibiotic injections in one site
C.	Antibiotic Injections - Regular
	1. Cattle given a regular antibiotic between arrival and exit
	2. Operations by route regular antibiotic was given
	3. Operations giving all regular antibiotic injections in one site
D.	Vitamin Injections
	1. Operations giving vitamin injections
	2. Cattle given vitamin injections
	3. Operations by route vitamin injection was given
	4. Operations giving all vitamin injections in one site
Е.	Clostridial Vaccinations
	1. Operations giving any clostridial vaccinations
	2. Cattle given any clostridial vaccinations
	3. Operations giving selected clostridial vaccinations
	4. Cattle given selected clostridial vaccinations
	5. Operations by route clostridial injection was given
	6. Operations giving all clostridial injections in one site
	7. Operations giving more than one clostridial vaccine injection
	8. Cattle given more than one clostridial vaccine injection

## **Table of Contents**

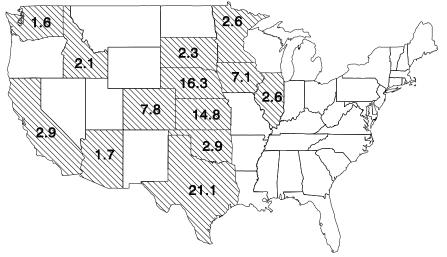
F. Nonclostridial Vaccinations	. 13
1. Operations giving selected vaccinations	
2. Cattle given selected vaccinations	
3. Operations by route nonclostridial injections were given at processing	
4. Cattle given any nonclostridial vaccinations	
5. Operations giving all nonclostridial injections in one injection site	
G. Internal and External Parasites	. 15
1. Operations with cattle suspected or confirmed infested with selected parasites 15	
2. Cattle placed suspected or confirmed infested with selected parasites	
3. Operations that treated cattle for selected parasites	
4. Cattle placed that were treated for selected parasites	
5. Operations using selected methods of fly control	
H. Mexican-Origin Cattle	. 17
1. Operations feeding cattle originating from Mexico at the same time as U.S. dairy	
or beef breeding cattle	
I. Information Sources	. 17
1. Animal health information	
2. Nutritional information	
3. General production information	
II. Sample Profile of Participating Operations	. 20
A. Number of Operations by Number of Placements Between July 1993 and June 1994	. 20

## Introduction

As part of the National Animal Health Monitoring System (NAHMS), the USDA:APHIS:Veterinary Services (VS) conducted a National feedlot study designed to provide both participants and the industry with information on feedlot animal health, productivity, and management practices.

The USDA's National Agricultural Statistics Service (NASS) collaborated with VS to select a producer sample (3,214 feedlots) that was statistically **designed to provide inferences to the nation's feedlot animal population**. Included in the study were 13 major cattle-on-feed States that accounted for 85.8 percent of the U.S. cattle-on-feed inventory as of January 1, 1994 (shown below).

# States Participating in the NAHMS Cattle on Feed Evaluation and Percent of U.S. Cattle-on-Feed Inventory, January 1, 1994



Total = 85.8 percent of the U.S. inventory.

#2650

This report is the second of a two-part release of National information resulting from the NAHMS Cattle on Feed Evaluation (COFE):

- *Part I: Feedlot Management Practices* was released in January 1995. NASS interviewers contacted a total of 3,214 producers by telephone or personal interview from August 1 through September 16, 1994, to collect data for Part I.
- *Part II: Feedlot Health Management Report* contains health management data collected from August through September by telephone interview from producers with feedlots of less than 1,000-head capacity. State and Federal Veterinary Medical Officers collected the data from feedlots of 1,000 head or more capacity through personal interviews from October 3 through December 21, 1994.

For both reports, percent of cattle placed refers to cattle placed on feed from July 1, 1993, through June 30, 1994.

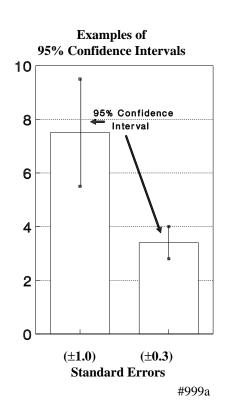
Descriptive tables in Section I of this report are population estimates, such as means and proportions which have been **weighted to represent the population** (85.8 percent of the U.S. cattle-on-feed inventory). Section II describes the participating operations whose managers provided the data from which National estimates were derived.

The estimates are provided with a measure of variability called the standard error, denoted by  $(\pm)$ . Chances are 95 out of 100 that the interval created by the estimate plus or minus two standard errors will contain the true population value. In the example at right, an estimate of 7.5 percent with a standard error of  $\pm 1.0$  results in a range of 5.5 to 9.5 (two times the standard error above and below the estimate).

Identification numbers have been assigned to each graph in this report for reference purposes (notice the #999a notation below the graph at right).

If you have questions about this report, contact NAHMS at:

Centers for Epidemiology and Animal Health USDA:APHIS:VS, Attn. NAHMS 555 South Howes, Suite 200 Fort Collins, CO 80521 (970) 490-7800 Internet: NAHMS\_INFO@aphis.usda.gov



## **I.** Population Estimates

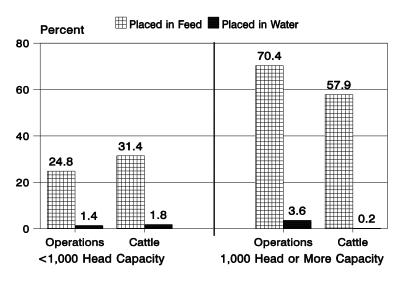
- A. Antibiotics in Feed and Water
  - 1. Of all operations, percent of operations that used an antibiotic as a health or production management tool:

	Small (<1,000 Head)		Large (1,000+ Head)		<u>Total</u>	
	Percent	Standard	Percent	Standard	Percent	Standard
Method of Delivery	<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error
Placed in feed	24.8	(±2.9)	70.4	(±1.8)	27.0	(±2.8)
Placed in water	1.4	(±0.3)	3.6	(±0.7)	1.5	(±0.3)

2. Of all cattle placed on feed, percent of cattle given an antibiotic as a health or production management tool:

	Small (<1,000 Head)		<u>Large (1,000+ Head)</u>		<u>Total</u>	
	Percent	Standard	Percent	Standard	Percent	Standard
Method of Delivery	Cattle	Error	Cattle	Error	Cattle	Error
Placed in feed	31.4	(±3.0)	57.9	(±2.0)	54.7	(±1.8)
Placed in water	1.8	(±0.4)	0.2	(±0.1)	0.4	(±0.1)

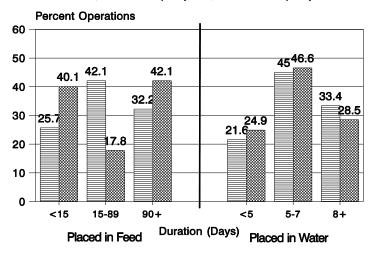
Percent of Operations Giving (and Percent of Cattle Given) an Antibiotic in Feed and Water as a Health or Production Management Tool



3. For operations that used antibiotics as a health or production management tool, percent of operations by duration (days):

a.	Placed in feed	<u>Small (&lt;1,0</u>	00 Head)	<u>Large (1,0</u>	<u>00+ Head)</u>	Tot	tal
		Percent	Standard	Percent	Standard	Percent	Standard
	Duration (Days)	<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error
	<15	25.7	(±5.3)	40.1	(±2.3)	27.6	(±4.6)
	15-89	42.1	(±7.1)	17.8	(±1.9)	38.8	(±6.1)
	90 +	32.2	(±8.0)	42.1	(±2.2)	33.6	(±6.9)
	Total	100.0		100.0		100.0	
b.	Placed in water	<u>Small (&lt;1,0</u>	00 Head)	<u>Large (1,0</u>	<u>00+ Head)</u>	Tot	tal
b.	Placed in water	Small (<1,0) Percent	<u>00 Head)</u> Standard	Large (1,0 Percent	<u>00+ Head)</u> Standard	<u>Tot</u> Percent	<u>tal</u> Standard
b.	Placed in water Duration (Days)		Standard		Standard		
b.		Percent	Standard	Percent	Standard	Percent	Standard
b.	Duration (Days)	Percent Operations	Standard <u>Error</u>	Percent Operations	Standard Error	Percent Operations	Standard <u>Error</u>
b.	Duration (Days) <5	Percent Operations 21.6	Standard Error (±9.0)	Percent Operations 24.9	Standard Error (±9.1)	Percent Operations 22.0	Standard <u>Error</u> (±7.9)

# Percent of Operations Using Antibiotics as a Health or Production Management Tool by Duration



4. For large operations (1,000 head or more capacity) that used some antimicrobials in feed or water, percent of operations by type of antibiotic used in feed or water as a health or production management tool:

Type of Antibiotics	Percent Operations	Standard Error
Bacitracin	0.5	(±0.2)
Chlortetracycline	45.8	(±2.3)
Chlortetracycline/		
Sulfamethazine	26.6	(±2.1)
Neomycin	2.0	(±0.7)
Oxytetracycline	29.6	(±2.2)
Sulfamethazine/		
Sulfadimethoxine	4.5	(±1.0)
Tetracycline	7.0	(±1.3)
Tylosin	42.8	(±2.1)
Other	1.0	(±0.4)

### B. Antibiotic Injections - Long-lasting

1. Of all cattle placed on feed, percent of cattle given a long-lasting (label specifies effect greater than 24 hours) antibiotic between arrival and exiting the feedlot:

Small (<1.0	)00 Head)	Large (1.0	00+ Head)	To	<u>otal</u>
Percent	Standard	Percent	Standard	Percent	Standard
Cattle	Error	Cattle	Error	Cattle	Error
16.4	(±1.9)	13.1	(±0.9)	13.5	(±0.8)

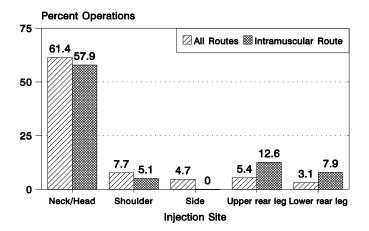
2. For large operations (1,000 head or more capacity) giving long-lasting antibiotics, percent of operations by route antibiotic was given:

Route	Percent Operations	Standard Error
Intramuscular	62.8	(±2.1)
Subcutaneous	54.4	(±2.1)
Intravenous	8.7	(±1.1)
Other	0.0	(±0.0)

3. For large operations (1,000 head or more capacity) giving long-lasting antibiotics, percent of operations giving all long-lasting antibiotic injections in one site by site:

	Percent Operations					
Site	All <u>Routes</u>	Standard <u>Error</u>	Intramuscular <u>Route</u>	Standard <u>Error</u>		
Neck/Head	61.4	(±2.0)	57.9	(±2.6)		
Shoulder	7.7	(±1.1)	5.1	(±1.1)		
Side	4.7	(±1.0)	0.0	(±0.0)		
Upper rear leg	5.4	(±1.0)	12.6	(±1.8)		
Lower rear leg	3.1	(±0.7)	7.9	(±1.3)		
Lower rear leg	3.1	(±0.7)	7.9	(±1.3)		

## Percent of Operations\* Giving All Long-Lasting Antibiotics In One Site



\*Percent of operations with 1,000 head or more capacity giving long-lasting antibiotics.

C. Antibiotic Injections - Regular

1. Of all cattle placed on feed, percent of cattle given a regular antibiotic (label specifies effect 24 hours or less) between arrival and exiting the feedlot:

<u>Small (&lt;1</u>	000 Head)	Large (1.0	<u>)00+ Head)</u>	To	otal
Percent	Standard	Percent	Standard	Percent	Standard
Cattle	Error	Cattle	Error	Cattle	Error
10.0	(±1.5)	16.1	(±1.0)	15.4	(±0.9)

2. For large operations (1,000 head or more capacity) giving regular antibiotics, percent of operations by route antibiotic was given:

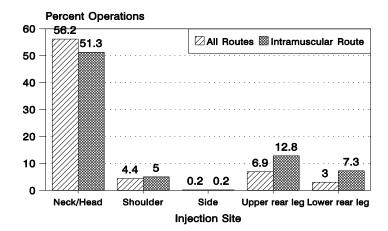
Route	Percent Operations	Standard Error
Intramuscular	84.3	(±1.6)
Subcutaneous	26.4	(±1.9)
Intravenous	29.1	(±1.9)
Other	0.4	(±0.2)

3. For large operations (1,000 head or more capacity) giving regular antibiotics, percent of operations giving all regular antibiotic injections in one site by site:

Percent Operations

<u>r creent operations</u>				
All	Standard	Intramuscular	Standard	
Routes	Error	Route	Error	
56.2	(±2.1)	51.3	(±2.4)	
4.4	(±0.9)	5.0	(±1.1)	
0.2	(±0.1)	0.2	(±0.2)	
6.9	(±1.1)	12.8	(±1.6)	
3.0	(±0.7)	7.3	(±1.2)	
	<u>Routes</u> 56.2 4.4 0.2 6.9	All         Standard           Routes         Error           56.2         (±2.1)           4.4         (±0.9)           0.2         (±0.1)           6.9         (±1.1)	Routes         Error         Route           56.2         (±2.1)         51.3           4.4         (±0.9)         5.0           0.2         (±0.1)         0.2           6.9         (±1.1)         12.8	

## Percent of Operations\* Giving All Regular Antibiotics in One Site



\*Percent of operations with 1,000 head or more capacity giving regular antibiotics.

D. Vitamin Injections

1.	. For large operations (1,000 head or more capacity), percent of operations giving vitamin injections:					
	Vitamins	Percent	Percent Operations			
	A, D, E	46.1	(±1.9)			
	В	37.8	(±1.9)			
	С	6.3	(±0.9)			
	Any	58.1	(±2.0)			

2. Of all cattle placed on feed in large operations (1,000 head or more capacity), percent of cattle given vitamin injections:

<u>Vitamins</u>	Percent Operatio	ons Standard Error
A, D, E	42.5	(±2.6)
В	12.3	(±1.6)
С	1.7	(±0.5)
Any	44.3	(±2.5)

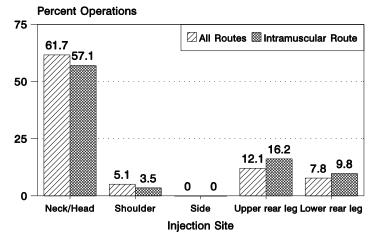
3. For large operations (1,000 head or more capacity) where vitamin injections were given, percent of operations by route the vitamin injection was given:

Route	Percent Operations	Standard Error
Intramuscular	76.8	(±2.2)
Subcutaneous	29.1	(±2.4)
Intravenous	4.2	(±1.1)
Other	0.3	(±0.1)

4. For large operations (1,000 head or more capacity) giving vitamin injections, percent of operations giving all vitamin injections in one site by site: <u>Percent Operations</u>

	All	Standard	Intramuscular	Standard
Site	Routes	Error	Route	Error
Neck/Head	61.7	(±2.4)	57.1	(±2.8)
Shoulder	5.1	(±1.1)	3.5	(±1.1)
Side	0.0	(±0.0)	0.0	(±0.0)
Upper rear leg	12.1	(±1.7)	16.2	(±2.1)
Lower rear leg	7.8	(±1.4)	9.8	(±1.7)

## Percent of Operations\* Giving All Vitamin Injections in One Site



\*Percent of operations with 1,000 head or more capacity giving vitamin injections.

### E. Clostridial Vaccinations

1. For all operations, percent of operations giving any clostridial vaccinations:

1.	1. For all operations, percent of operations giving any clostridial vaccinations:						
		<u>Small (&lt;1,0</u>	00 Head)	<u>Large (1.0</u>	<u>00+ Head)</u>	Tot	al
		Percent	Standard	Percent	Standard	Percent	Standard
		<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error
		34.4	(±3.1)	91.0	(±1.2)	37.1	(±3.0)
2.	For all cattle placed on feed, perce	ent of cattle g	iven any clo	ostridial vace	inations:		
		<u>Small (&lt;1.00</u>	<u>00 Head)</u>	<u>Large (1,0</u>	<u>00+ Head)</u>	Tot	al
		Percent	Standard	Percent	Standard	Percent	Standard
		Cattle	Error	Cattle	Error	Cattle	Error
		44.6	(±3.4)	92.0	(±1.2)	86.5	(±1.1)
3.	For large operations (1,000 head o	r more capac	ity), percen	t of operation	ns giving the	e following cl	ostridial
va	accinations:		Pe	ercent Operati	ons S	Standard Error	-
	<u>Cl</u> . <u>perfringens</u> C and D (enterotox	kemia, overea	ating)	89.7		(±1.2)	
	<u>Cl</u> . <u>chauvoei</u> (blackleg)			88.6		(±1.3)	
	<u>Cl</u> . <u>septicum</u> (malignant edema)			87.5		(±1.3)	
	<u>Cl</u> . <u>sordellii</u>			86.0		(±1.4)	
	<u>Cl</u> . <u>hemolyticum</u> (redwater)			35.2		(±1.9)	
	<u>Cl</u> . <u>novyi</u> (black disease)			86.0		(±1.4)	
	<u>Cl</u> . <u>tetani</u> (tetanus)			16.7		(±1.3)	
4.	For large operations (1,000 head o	r more capac	ity), percen	t of cattle giv	en the follo	wing clostridi	al
va	accinations:	_		Percent Cattle	2 2	Standard Error	-
	<u>Cl</u> . perfringens C and D (enterotox	kemia, overea	ating)	90.8		(±1.2)	
	<u>Cl</u> . <u>chauvoei</u> (blackleg)			84.0		(±1.7)	
	<u>Cl</u> . <u>septicum</u> (malignant edema)			82.8		(±1.7)	
	<u>Cl</u> . <u>sordellii</u>			82.0		(±1.8)	
	<u>Cl</u> . <u>hemolyticum</u> (redwater)			31.9		(±2.3)	

82.8

4.0

<u>Cl</u>. <u>novyi</u> (black disease)

<u>Cl</u>. <u>tetani</u> (tetanus)

(±1.7)

(±0.5)

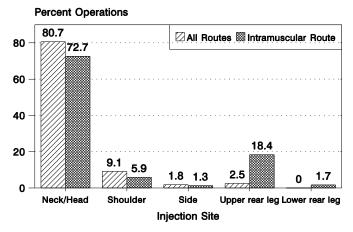
5. For operations where clostridial vaccinations were given, percent of operations by route the clostridial vaccination was given:  $\underline{Small}$  (<1.000 Head) Large (1.000+Head) Total

ccination was given:	<u>Small (&lt;1,0</u>	<u>00 Head)</u>	<u>Large (1,0</u>	<u>00+ Head)</u>	10	<u>.al</u>
	Percent	Standard	Percent	Standard	Percent	Standard
Route	<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error
Intramuscular	41.8	(±5.9)	13.8	(±1.5)	38.0	(±5.0)
Subcutaneous	67.3	(±5.2)	87.5	(±1.4)	70.0	(±4.4)
Intravenous	0.0	(±0.0)	0.0	(±0.0)	0.0	(±0.0)
Other	0.0	(±0.0)	0.0	(±0.0)	0.0	(±0.0)

6. For large operations (1,000 head or more capacity) where clostridial vaccinations were given, percent of operations giving all clostridial vaccinations in one site by site:

	Percent Operations				
	All	Standard	Intramuscular	Standard	
Site	Routes	Error	Route	Error	
Neck/Head	80.7	(±1.7)	72.7	(±5.3)	
Shoulder	9.1	(±1.2)	5.9	(±2.8)	
Side	1.8	(±0.5)	1.3	(±0.9)	
Upper rear leg	2.5	(±0.7)	18.4	(±4.6)	
Lower rear leg	0.0	(±0.0)	1.7	(±1.4)	

## Percent of Operations\* Giving All Clostridial Vaccinations in One Site



\*Percent of operations with 1,000 head or more capacity giving clostridial vaccinations.

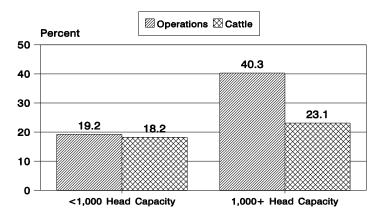
7. For operations where clostridial vaccinations were given, percent of operations giving more than one clostridial vaccine injection (at the same time or different times):

<u>Small (&lt;1,</u>	000 Head)		<u>00+ Head)</u>	<u>Total</u>		
Percent	Standard	Percent	Standard	Percent	Standard	
<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error	
19.2	(±3.7)	40.3	(±2.0)	21.7	(±3.3)	

8. For operations where clostridial vaccinations were given, percent of cattle given more than one clostridial vaccine injection (at the same time or different times):

Small (<1,000 Head)		Large (1.0	<u>)00+ Head)</u>	<u>Total</u>		
Percent	Standard	Percent	Standard	Percent	Standard	
Cattle	Error	Cattle	Error	Cattle	Error	
18.2	(±2.9)	23.1	(±1.6)	22.8	(±1.5)	

#### Percent of Operations\* Giving (and Percent of Cattle Given) More Than One Clostridial Vaccine Injection\*\*



\*For operations where clostridial vaccinations were given. \*\*Multiple injections could have been given at the same time or at different times.

## F. Nonclostridial Vaccinations

1. Of all operations, percent of operations giving the following vaccinations<sup>1</sup>:

	Small (<1,0	00 Head)	Large (1.00	<u>00+ Head)</u>	Tot	al
	Percent	Standard	Percent	Standard	Percent	Standard
Vaccination	<b>Operations</b>	Error	<b>Operations</b>	Error	<b>Operations</b>	Error
Bovine viral diarrhea (BVD)	43.7	(±3.4)	87.5	(±1.3)	45.7	(±3.2)
Infectious bovine rhino-						
tracheitis (IBR)	46.2	(±3.4)	95.7	(±0.9)	48.6	(±3.2)
Parainfluenza Type 3 (PI3)	36.3	(±3.4)	85.8	(±1.3)	38.7	(±3.2)
Bovine Respiratory Syncytial						
Virus (BRSV)	33.5	(±3.4)	83.7	(±1.4)	35.9	(±3.2)
<u>Hemophilus</u> somnus	28.6	(±3.4)	58.6	(±2.0)	30.1	(±3.2)
Pasteurella spp.	28.4	(±3.3)	49.2	(±2.0)	29.4	(±3.2)

2. Of all cattle placed on feed, percent of cattle given the following vaccinations  $^{1}$ :

	<u>Small (&lt;</u>	1,000 Head)	Large (1	<u>,000+ Head)</u>	To	<u>otal</u>
	Percent	Standard	Percent	Standard	Percent	Standard
Vaccination	Cattle	Error	Cattle	Error	Cattle	Error
Bovine viral diarrhea (BVD)	61.5	(±3.1)	79.0	(±1.7)	76.9	(±1.6)
Infectious bovine rhino-						
tracheitis (IBR)	65.7	(±3.0)	98.0	(±0.4)	94.1	(±0.5)
Parainfluenza Type 3 (PI3)	51.5	(±3.1)	74.0	(±2.2)	71.3	(±2.0)
Bovine Respiratory Syncytial						
Virus (BRSV)	46.2	(±3.2)	61.4	(±2.1)	59.6	(±1.9)
<u>Hemophilus somnus</u>	39.3	(±3.3)	30.1	(±1.9)	31.2	(±1.7)
<u>Pasteurella</u> spp.	36.4	(±3.1)	30.3	(±2.0)	31.1	(±1.8)

1 Injection or nasal spray.

3. For large operations (1,000 head or more capacity) where nonclostridial vaccinations were given at processing, percent of operations by route the vaccination was given:

Route	Percent Operations	Standard Error
Intramuscular	81.0	(±1.7)
Subcutaneous	31.6	(±2.0)
Intravenous	0.0	(±0.0)
Other	6.1	(±1.0)

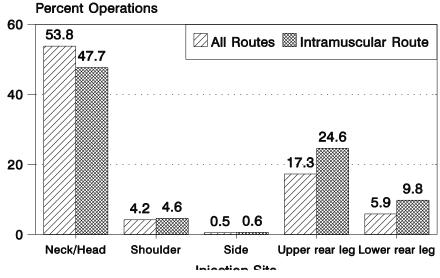
4. For large operations (1,000 head or more capacity), percent of cattle given any nonclostridial vaccinations: <u>Percent Cattle</u> <u>Standard Error</u>

98.6	(±0.3)

5. For large operations (1,000 head or more capacity) where nonclostridial vaccinations were given, percent of operations giving all nonclostridial vaccinations in one site by site:

	Percent Operations						
	All	Standard	Intramuscular	Standard			
Site	Routes	Error	Route	Error			
Neck/Head	53.8	(±2.0)	47.7	(±2.2)			
Shoulder	4.2	(±0.8)	4.6	(±0.9)			
Side	0.5	(±0.3)	0.6	(±0.4)			
Upper rear leg	17.3	(±1.6)	24.6	(±2.0)			
Lower rear leg	5.9	(±0.9)	9.8	(±1.3)			

## Percent of Operations\* Giving All Nonclostridial Vaccinations in One Site



#2782

### G. Internal and External Parasites

1. For large operations (1,000 head or more capacity), percent of operations with cattle suspected or confirmed to be infested with the following internal and external parasites:

Percent Operations	Standard Error
93.4	(±1.1)
42.0	(±1.8)
83.7	(±1.5)
43.3	(±1.9)
90.0	(±1.2)
39.3	(±1.9)
	93.4 42.0 83.7 43.3 90.0

2. For large operations (1,000 head or more capacity), percent of cattle placed suspected or confirmed to be infested with the following:

<u>Parasite</u>	Percent Cattle	Standard Error
Worms	83.8	(±1.4)
Flukes	32.5	(±2.0)
Cattle grubs	72.5	(±2.0)
Ticks	35.7	(±2.3)
Cattle lice	70.9	(±2.1)
Mites	36.8	(±2.5)

Parasite	Percent Operations	Standard Error
Worms	96.1	(±0.8)
Flukes	43.0	(±1.8)
Cattle grubs	89.0	(±1.3)
Ticks	44.5	(±1.9)
Cattle lice	96.3	(±0.7)
Mites	58.9	(±1.9)

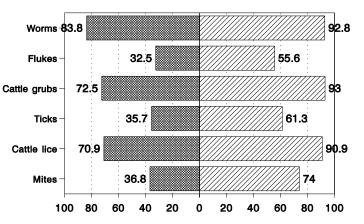
3. For large operations (1,000 head or more capacity), percent of operations that treated cattle placed on feed for the following internal and external parasites:

4. For large operations (1,000 head or more capacity), percent of cattle placed on feed that were treated for the following:

Percent Cattle	Standard Error
92.8	(±1.1)
55.6	(±2.4)
93.0	(±1.0)
61.3	(±2.3)
90.9	(±1.1)
74.0	(±1.8)
	92.8 55.6 93.0 61.3 90.9

## Percent of Cattle Placed\* Infested With and Treated for the Following Internal or External Parasites

88% Cattle Infested 27% Cattle Treated



#### \*On operations with 1,000 head or more capacity.



5. Percent of large operations (1,000 head or more capacity) using the following methods of fly control:

Method	Percent Operations	Standard Error
Manure removal	97.7	(±0.5)
Biological control (predatory insects)	28.1	(±1.7)
Ear tags	13.0	(±1.4)
Environmental sprays	53.7	(±1.9)
Pour-ons, dusting powder, or animal spray	s 35.7	(±1.9)
Feed additive that kills larva	6.5	(±0.9)
Traps	13.6	(±1.4)
Granular fly bait	77.6	(±1.7)
Other	7.4	(±1.0)

#### Cattle on Feed Evaluation

#### H. Mexican-Origin Cattle

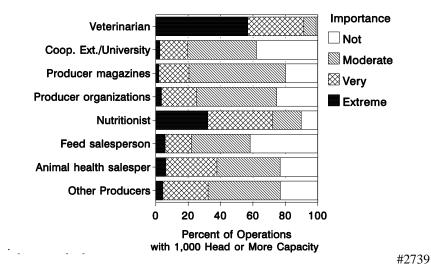
1. Percent of large operations (1,000 head or more capacity) feeding cattle originating from Mexico at the same							
time as:		Percent Operations	Standard Error				
a.	U.S. beef cattle and calves to be used for breeding	1.1	(±0.4)				
b.	U.S. dairy cattle and calves to be used for breeding	0.2	(±0.1)				

#### I. Information Sources

1. Percent of large operations (1,000 head or more capacity) by importance of animal health information source for the feedlot:

Percent Operations by Importance of Source							
Not	Standard	Moderately	Standard	Very	Standard	Extremely	Standard
<u>Important</u>	Error	<u>Important</u>	Error	<u>Important</u>	Error	<u>Important</u>	Error
1.0	(±0.4)	7.6	(±1.1)	34.6	(±1.9)	56.8	(±2.0)
37.8	(±2.0)	42.5	(±2.0)	17.2	(±1.5)	2.5	(±0.6)
19.9	(±1.6)	59.6	(±2.0)	18.6	(±1.6)	1.9	(±0.5)
25.3	(±1.7)	49.6	(±2.0)	21.6	(±1.6)	3.5	(±0.6)
10.2	(±1.3)	17.9	(±1.6)	39.8	(±2.0)	32.1	(±1.8)
41.7	(±1.9)	36.4	(±1.9)	16.2	(±1.5)	5.7	(±1.0)
23.2	(±1.7)	39.0	(±1.9)	31.7	(±1.9)	6.1	(±0.9)
23.1	(±1.7)	44.6	(±2.0)	27.9	(±1.8)	4.4	(±0.7)
	Important 1.0 37.8 19.9 25.3 10.2 41.7 23.2	Not         Standard           Important         Error           1.0         (±0.4)           37.8         (±2.0)           19.9         (±1.6)           25.3         (±1.7)           10.2         (±1.3)           41.7         (±1.9)           23.2         (±1.7)	NotStandardModeratelyImportantErrorImportant1.0 $(\pm 0.4)$ 7.637.8 $(\pm 2.0)$ 42.519.9 $(\pm 1.6)$ 59.625.3 $(\pm 1.7)$ 49.610.2 $(\pm 1.3)$ 17.941.7 $(\pm 1.9)$ 36.423.2 $(\pm 1.7)$ 39.0	Not ImportantStandard ErrorModerately ImportantStandard Error1.0 $(\pm 0.4)$ 7.6 $(\pm 1.1)$ 37.8 $(\pm 2.0)$ 42.5 $(\pm 2.0)$ 19.9 $(\pm 1.6)$ 59.6 $(\pm 2.0)$ 25.3 $(\pm 1.7)$ 49.6 $(\pm 2.0)$ 10.2 $(\pm 1.3)$ 17.9 $(\pm 1.6)$ 41.7 $(\pm 1.9)$ 36.4 $(\pm 1.9)$ 23.2 $(\pm 1.7)$ 39.0 $(\pm 1.9)$	NotStandardModeratelyStandardVeryImportantErrorImportantErrorImportantImportant1.0 $(\pm 0.4)$ 7.6 $(\pm 1.1)$ 34.637.8 $(\pm 2.0)$ 42.5 $(\pm 2.0)$ 17.219.9 $(\pm 1.6)$ 59.6 $(\pm 2.0)$ 18.625.3 $(\pm 1.7)$ 49.6 $(\pm 2.0)$ 21.610.2 $(\pm 1.3)$ 17.9 $(\pm 1.6)$ 39.841.7 $(\pm 1.9)$ 36.4 $(\pm 1.9)$ 16.223.2 $(\pm 1.7)$ 39.0 $(\pm 1.9)$ 31.7	NotStandardModeratelyStandardVeryStandardImportantErrorImportantErrorImportantError1.0 $(\pm 0.4)$ 7.6 $(\pm 1.1)$ 34.6 $(\pm 1.9)$ 37.8 $(\pm 2.0)$ 42.5 $(\pm 2.0)$ 17.2 $(\pm 1.5)$ 19.9 $(\pm 1.6)$ 59.6 $(\pm 2.0)$ 18.6 $(\pm 1.6)$ 25.3 $(\pm 1.7)$ 49.6 $(\pm 2.0)$ 21.6 $(\pm 1.6)$ 10.2 $(\pm 1.3)$ 17.9 $(\pm 1.6)$ 39.8 $(\pm 2.0)$ 41.7 $(\pm 1.9)$ 36.4 $(\pm 1.9)$ 16.2 $(\pm 1.5)$ 23.2 $(\pm 1.7)$ 39.0 $(\pm 1.9)$ 31.7 $(\pm 1.9)$	NotStandardModeratelyStandardVeryStandardExtremelyImportantErrorImportantErrorImportantErrorImportantError1.0 $(\pm 0.4)$ 7.6 $(\pm 1.1)$ 34.6 $(\pm 1.9)$ 56.837.8 $(\pm 2.0)$ 42.5 $(\pm 2.0)$ 17.2 $(\pm 1.5)$ 2.519.9 $(\pm 1.6)$ 59.6 $(\pm 2.0)$ 18.6 $(\pm 1.6)$ 1.925.3 $(\pm 1.7)$ 49.6 $(\pm 2.0)$ 21.6 $(\pm 1.6)$ 3.510.2 $(\pm 1.3)$ 17.9 $(\pm 1.6)$ 39.8 $(\pm 2.0)$ 32.141.7 $(\pm 1.9)$ 36.4 $(\pm 1.9)$ 16.2 $(\pm 1.5)$ 5.723.2 $(\pm 1.7)$ 39.0 $(\pm 1.9)$ 31.7 $(\pm 1.9)$ 6.1

## Sources of Animal Health Information



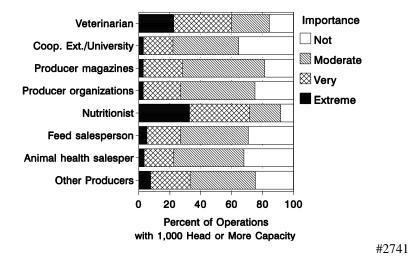
2. Percent of large operations (1,000 head or more capacity) by importance of nutritional information source for the feedlot: Percent Operations by Importance of Source

	Percent Operations by Importance of Source							
	Not	Standard	Moderately	Standard	Very	Standard	Extremely	Standard
Source	Important	Error	Important	Error	Important	Error	Important	Error
Veterinarian	20.4	(±1.7)	38.4	(±2.0)	30.3	(±1.8)	10.9	(±1.1)
Cooperative Extension								
Service/University	40.1	(±2.0)	43.2	(±2.0)	14.9	(±1.4)	1.8	(±0.6)
Producer magazines	30.6	(±1.8)	55.7	(±2.0)	12.7	(±1.4)	1.0	(±0.3)
Producer organizations	40.1	(±2.0)	49.6	(±2.0)	8.2	(±1.0)	2.1	(±0.6)
Nutritionist	4.5	(±0.9)	3.4	(±0.8)	21.0	(±1.7)	71.1	(±1.9)
Feed sales person	21.5	(±1.6)	37.8	(±1.9)	28.4	(±1.9)	12.3	(±1.4)
Animal health salesperson	48.6	(±2.0)	38.4	(±2.0)	10.9	(±1.3)	2.1	(±0.5)
Other producers	33.7	(±1.9)	43.0	(±2.0)	19.9	(±1.6)	3.4	(±0.7)

Percent Operations by Importance of Source							
Not	Stand.	Moderately	Stand.	Very	Stand.	Extremely	Stand.
Important	Error	<u>Important</u>	Error	<u>Important</u>	Error	Important	Error
15.6	(±1.5)	24.4	(±1.8)	37.4	(±2.0)	22.6	(±1.5)
35.4	(±1.9)	42.4	(±2.0)	19.1	(±1.6)	3.1	(±0.7)
18.6	(±1.5)	53.1	(±2.0)	25.3	(±1.8)	3.0	(±0.7)
24.9	(±1.7)	48.0	(±2.0)	24.1	(±1.7)	3.0	(±0.7)
8.2	(±1.1)	20.1	(±1.7)	38.8	(±1.9)	32.9	(±1.8)
29.1	(±1.8)	44.0	(±2.0)	21.6	(±1.7)	5.3	(±1.0)
32.0	(±1.9)	45.5	(±2.0)	19.0	(±1.6)	3.5	(±0.7)
24.5	(±1.7)	42.2	(±2.0)	25.6	(±1.8)	7.7	(±1.1)
	Important 15.6 35.4 18.6 24.9 8.2 29.1 32.0	Not         Stand.           Important         Error           15.6 $(\pm 1.5)$ 35.4 $(\pm 1.9)$ 18.6 $(\pm 1.5)$ 24.9 $(\pm 1.7)$ 8.2 $(\pm 1.1)$ 29.1 $(\pm 1.8)$ 32.0 $(\pm 1.9)$	NotStand.ModeratelyImportantErrorImportant15.6 $(\pm 1.5)$ 24.435.4 $(\pm 1.9)$ 42.418.6 $(\pm 1.5)$ 53.124.9 $(\pm 1.7)$ 48.08.2 $(\pm 1.1)$ 20.129.1 $(\pm 1.8)$ 44.032.0 $(\pm 1.9)$ 45.5	NotStand.ModeratelyStand.ImportantErrorImportantError15.6 $(\pm 1.5)$ 24.4 $(\pm 1.8)$ 35.4 $(\pm 1.9)$ 42.4 $(\pm 2.0)$ 18.6 $(\pm 1.5)$ 53.1 $(\pm 2.0)$ 24.9 $(\pm 1.7)$ 48.0 $(\pm 2.0)$ 8.2 $(\pm 1.1)$ 20.1 $(\pm 1.7)$ 29.1 $(\pm 1.8)$ 44.0 $(\pm 2.0)$ 32.0 $(\pm 1.9)$ 45.5 $(\pm 2.0)$	NotStand.ModeratelyStand.VeryImportantErrorImportantErrorImportant15.6 $(\pm 1.5)$ 24.4 $(\pm 1.8)$ 37.435.4 $(\pm 1.9)$ 42.4 $(\pm 2.0)$ 19.118.6 $(\pm 1.5)$ 53.1 $(\pm 2.0)$ 25.324.9 $(\pm 1.7)$ 48.0 $(\pm 2.0)$ 24.18.2 $(\pm 1.1)$ 20.1 $(\pm 1.7)$ 38.829.1 $(\pm 1.8)$ 44.0 $(\pm 2.0)$ 21.632.0 $(\pm 1.9)$ 45.5 $(\pm 2.0)$ 19.0	NotStand.ModeratelyStand.VeryStand.ImportantErrorImportantErrorImportantError15.6 $(\pm 1.5)$ 24.4 $(\pm 1.8)$ 37.4 $(\pm 2.0)$ 35.4 $(\pm 1.9)$ 42.4 $(\pm 2.0)$ 19.1 $(\pm 1.6)$ 18.6 $(\pm 1.5)$ 53.1 $(\pm 2.0)$ 25.3 $(\pm 1.8)$ 24.9 $(\pm 1.7)$ 48.0 $(\pm 2.0)$ 24.1 $(\pm 1.7)$ 8.2 $(\pm 1.1)$ 20.1 $(\pm 1.7)$ 38.8 $(\pm 1.9)$ 29.1 $(\pm 1.8)$ 44.0 $(\pm 2.0)$ 21.6 $(\pm 1.7)$ 32.0 $(\pm 1.9)$ 45.5 $(\pm 2.0)$ 19.0 $(\pm 1.6)$	NotStand.ModeratelyStand.VeryStand.ExtremelyImportantErrorImportantErrorImportantErrorImportant15.6 $(\pm 1.5)$ 24.4 $(\pm 1.8)$ 37.4 $(\pm 2.0)$ 22.635.4 $(\pm 1.9)$ 42.4 $(\pm 2.0)$ 19.1 $(\pm 1.6)$ 3.118.6 $(\pm 1.5)$ 53.1 $(\pm 2.0)$ 25.3 $(\pm 1.8)$ 3.024.9 $(\pm 1.7)$ 48.0 $(\pm 2.0)$ 24.1 $(\pm 1.7)$ 3.08.2 $(\pm 1.1)$ 20.1 $(\pm 1.7)$ 38.8 $(\pm 1.9)$ 32.929.1 $(\pm 1.8)$ 44.0 $(\pm 2.0)$ 21.6 $(\pm 1.7)$ 5.332.0 $(\pm 1.9)$ 45.5 $(\pm 2.0)$ 19.0 $(\pm 1.6)$ 3.5

3. Percent of large operations (1,000 head or more capacity) by importance of general production information source for the feedlot:

## Sources of General Production Information



## **II. Sample Profile of Participating Operations**

A. Participating Operations by Number of Placements Between July 1993 and June 1994

		Number of Operations	
	Small	Large	
Number Placed	<1,000 Head Capacity	1,000 Head or More Capacity	<u>Total</u>
1-2,499	908	135	1,043
2,500-9,999	4	131	135
10,000-39,999	0	116	116
40,000+	0	71	71
Not available (missing)	1	0	1
Total	913	453	1,366



# Materials Available from NAHMS

# One-page discussions and graphic presentations of the COFE results (also accessable on the APHIS gopher):

- *January 1995*, Topics include Feedlot Quality Assurance, Environmental Monitoring by Feedlots, and Mexican-Origin Cattle in Feedlots
- *March 1995*, Topics include Injection Sites, Vaccination Practices, and Information Sources
- Summer 1995, Escherichia coli and Salmonella testing results

## Tabular summary of COFE results with graphic presentations:

- January 1995, Part I: Feedlot Management Practices
- April 1995, Part II: Feedlot Health Management Report (this report)

Results of NAHMS studies are also available on the **pork, dairy cattle, and beef cow/calf** industries.

Centers for Epidemiology and Animal Health USDA:APHIS:VS, Attn. NAHMS 2150 Centre Ave., Bldg., B, MS 2E7 Fort Collins, CO 80526-8117 (970) 494-7000 NAHMSweb@aphis.usda.gov

N177.395