

# AMBER WAVES OF GRAIN

Spaghetti, Twinkies, sourdough bread, puffed wheat, Oriental noodles, and concrete (yes, CONCRETE...) are just a few of many products made from wheat. Try your hand at the following grain game. How do you score?

## Scoring

- 6-8 You're on a roll!
- 3-5 Pita good. Dough-not be discouraged.
- 0-2 Tough cookies. Take a peek on back...then try again!

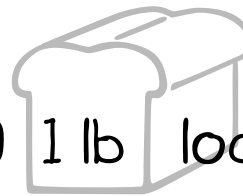
## FACT or FICTION ? ? ? ?

- \_\_\_\_\_ (1) Grains are fattening, so you shouldn't eat too much.
- \_\_\_\_\_ (2) Sourdough bread is made only in San Francisco.
- \_\_\_\_\_ (3) The United States produces much of the world's wheat.
- \_\_\_\_\_ (4) More foods are made with wheat than with any other cereal grain.
- \_\_\_\_\_ (5) One of wheat's worst enemies is rust.
- \_\_\_\_\_ (6) Though there are many different wheat varieties, their use is basically the same.
- \_\_\_\_\_ (7) Tomorrow, you may be skating on sidewalks made from wheat.
- \_\_\_\_\_ (8) Breeding is an important focus in wheat research.



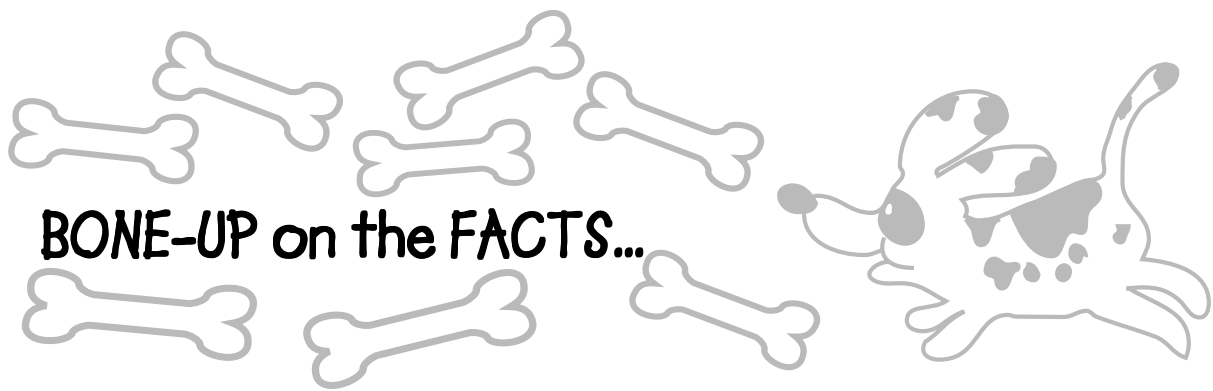
## DID YOU KNOW?

1 bushel of wheat = about 70 1 lb loaves



## ONE STEP FURTHER...

You have been selected to plan a classroom program on grains at your local elementary school. Suggest three hands-on activities you could feature.



(1) **FICTION**

Most grain foods are low in fat—unless you add it (like butter on bread and fatty sauces on pasta). You need 6-11 servings from the grains group each day. In addition to bread and cereal, foods like pretzels, pancakes, spaghetti, popcorn, tortillas, and the crust on pizza count too.

(2) **FICTION**

For years, bakers in the San Francisco Bay area insisted that their sourdough bread couldn't be duplicated farther than 50 miles away. But back in the 1960's, ARS scientists identified the bacterium and yeast that work together to produce the sourdough flavor. Now you can get sourdough bread anywhere in the world!

(3) **FACT**

China and the European Union produce the most, but the United States offers a good share—about 60 to 70 million metric tons per year. Kansas and North Dakota produce more than any other state.

(4) **FACT**

(5) **FACT**

Rust is a fungal disease that thrives best on wheat in the Pacific Northwest. In the late 1950's and early 1960's, stripe rust caused losses of over 70% of this area's wheat crop. Developing resistance to rust, as well as to other diseases and pests, is an ongoing ARS research activity.

(6) **FICTION**

There are several hundred wheat varieties produced in the United States—all categorized into six classes depending on whether the grain is hard or soft, the color of the kernel, and the time of planting. The hard wheats (hard red winter, hard red spring, and hard white wheat) are used mainly for yeast breads. Durum, the hardest wheat, is used for pasta products like macaroni and spaghetti.

The soft wheats (soft red winter and soft white wheat) are low in protein and are used for products like flat breads, cakes, pastries, and crackers. Some wheats have been developed to produce special flavors in products like tortillas and Oriental noodles.

(7) **FACT**

ARS is finding more and more ways to use wheat in food and nonfood products. Wheat-starch-based concrete is one of the newest. Potential uses include roofing tiles, insulation, flooring, soundproofing, insulated patios, AND sidewalks!

(8) **FACT**

ARS is continually breeding new wheat varieties to yield more nutritious flour and to fend off pests and diseases. Much of the wheat produced in the United States is from varieties bred by ARS and university cooperators.

**CHECK IT OUT—**

<http://www.wsu.edu:8080/~wheaties/>

<http://www.pw.usda.gov/>

<http://www.ars.usda.gov/is/AR/archive/jan97/> (See "From Bread to Blocks")

<http://www.wheatworld.org/> (Not a USDA-affiliated site)

<http://usda.mannlib.cornell.edu/usda/>

<http://www.nal.usda.gov/fnic/foodcomp/>