



Botanical

WHEAT BERRIES

- ☆ Wheat was originally a *wild grass*.
- ☆ Evidence exists that it first grew in the Middle East nearly *10,000 years ago*.
- ☆ Wheat is *not native to the United States*. It was first planted as a hobby crop in 1777.
- ☆ Today, *42 states* produce wheat.
- ☆ Wheatberries are the *mother grain* from which pasta, bread and flour are produced.



Whole grain kernel

Bran

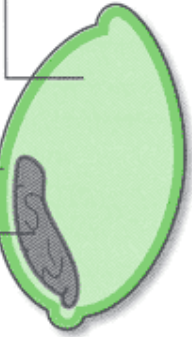
"Outer shell" protects seed
Fiber, B vitamins, trace minerals

Endosperm

Provides energy
Carbohydrates, protein

Germ

Nourishment for the seed
Antioxidants, vitamin E, B vitamins



History/Origin

WHEATBERRIES

- ☆ A **wheat berry** or **wheatberry** is the fruit of the wheat grass. They are thick, short grains—similar to brown rice.
- ☆ The wheatberry is a **single kernel** of wheat, including the bran, germ and endosperm, but not the hull.
- ☆ Wheat is **grown worldwide** on more acres than any other crop.
- ☆ It is in the family **Poaceae**. Plants of this family are usually called **grasses**.





WHEATBERRIES

Nutrition

- ☆ The wheatberry contains the whole kernel, so *none of the nutrients are stripped away.*
- ☆ A cup of wheatberries has about *300 calories.*
- ☆ Wheatberries are an excellent source of *dietary fiber*, and are loaded with *Vitamin E* and *magnesium.*
- ☆ *Gluten protein* found in wheatberries is hard to digest.

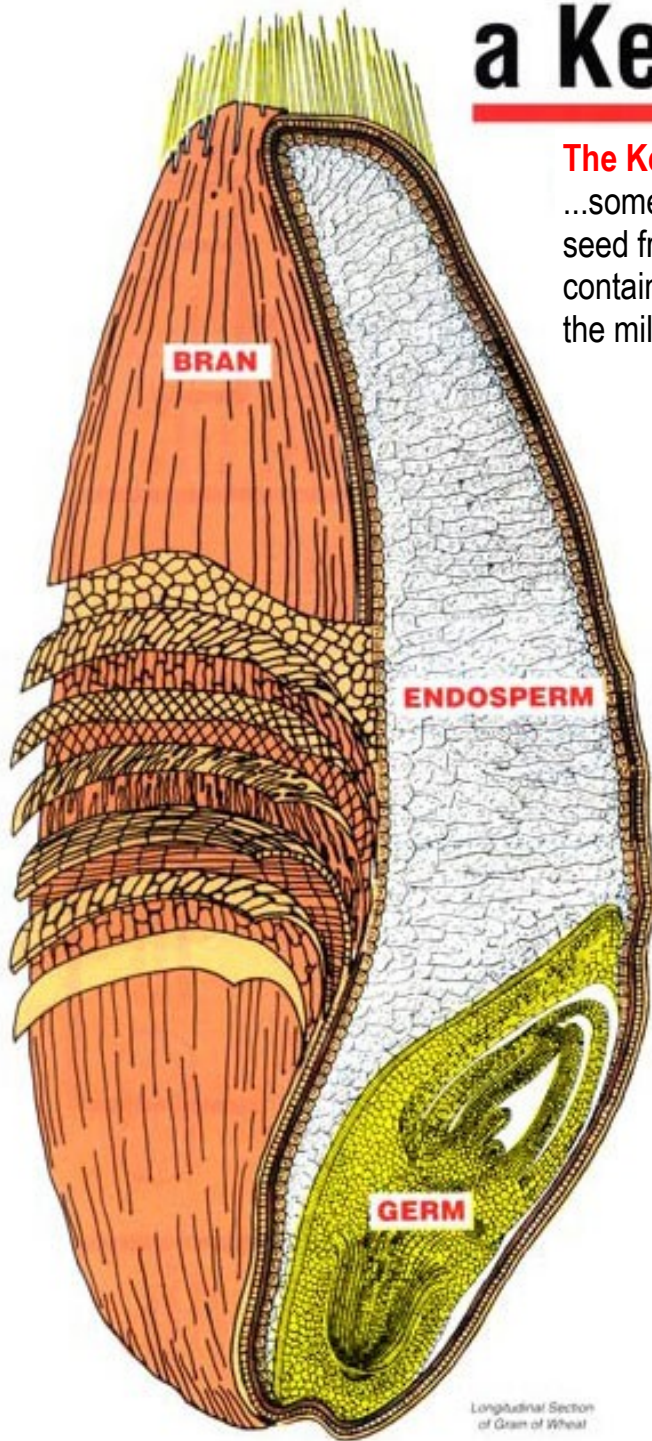




- ☆ The most common varieties of wheatberries in the United States are *white, red or brown*.
- ☆ *Licorice* is made from wheatberry flour.
- ☆ One bushel contains about *1 million* wheatberries.
- ☆ Wheatberries are the primary ingredient in an Eastern European porridge called *kutyua*.



a Kernel of Wheat



The Kernel of Wheat

...sometimes called the wheatberry, the kernel is the seed from which the wheat plant grows. Each tiny seed contains three distinct parts that are separated during the milling process to produce flour.

Endosperm

...about 83 percent of the kernel weight and the source of white flour. The endosperm contains the greatest share of protein, carbohydrates and iron, as well as the major B-vitamins, such as riboflavin, niacin, and thiamine. It is also a source of soluble fiber.

Bran

...about 14 1/2 percent of the kernel weight. Bran is included in whole wheat flour and can also be bought separately. The bran contains a small amount of protein, large quantities of the three major B-vitamins, trace minerals, and dietary fiber—primarily insoluble.

Germ

...about 2 1/2 percent of the kernel weight. The germ is the embryo or sprouting section of the seed, often separated from flour in milling because the fat content (10 percent) limits flour's shelf-life. The germ contains minimal quantities of high quality protein and a greater share of B-complex vitamins and trace minerals. Wheat germ can be purchased separately and is part of whole wheat flour.

If you use the entire wheatberry without removing the germ and the bran, you have "a whole grain" product.

