

It's harvest time again, so Jane and I thought we'd combine our efforts and follow Montana wheat from the farm to flour to food. In part one of a two part series, I will discuss some wheat varieties grown in Montana and the specific properties that each possesses. Jane will follow along in the coming weeks with a truckload of information about what happens from the bin to your breadbox.

By no means is this article an endorsement of any of the grains. It is just a little knowledge we've harvested on a few grain varieties. While there are a lot of varieties of wheat grown in Montana, I'd like to focus on two or three varieties that are grown, harvested, milled, and sold locally.

Wheat flour is utilized depending upon the protein content of the wheat. There are some other milling and baking properties that Jane will discuss, but straight from the field, wheat protein is crucial. The highest protein wheat (12-15%) is typically used for breads. Flour for noodles is usually in the 10-13% range, with the lower protein flours (7-11%) used for crackers, cakes, and pastry items. There are many types of wheat (soft red spring, Durham, hard white winter, etc.), and many varieties within those types.

While both winter and spring wheat are utilized in Montana, the two milling facilities I contacted in Montana (Montana Flour & Grain and Wheat Montana) use a majority of spring wheat. In 2008, the most planted varieties in Montana were Reeder (620,100 acres), Choteau (564,700 acres), McNeal (294,300 acres), and Fortuna (103,000 acres). In north central Montana, the two most widely planted varieties were Choteau and Fortuna. Choteau is a hard red spring wheat variety. This variety is a semi-dwarf, sawfly resistant variety that is grown throughout north central Montana. It is known for its high yield, slightly elevated protein level, good milling and baking properties, and above average test weight.

Test weight refers to the density of the wheat (weight per volume) where a bushel is solely a measure of volume. Test weight is most influenced by stress during the head fill stage of the wheat plant. Moisture at harvest and after can also influence test weight. Minimum test weight for spring wheat is 58 lbs/bushel.

The second variety I'd like to discuss is Fortuna. This variety is a beardless hard red spring wheat with good sawfly resistance, medium yield, and high test

weight. For both Choteau and Fortuna to be utilized at Montana Flour and Grain, in Fort Benton, they must meet certain specifications. Both of these varieties are used in their flour milling process. They must have a minimum of 14.5% protein, and have a test weight of 58 or more to be used. The folks at Montana Flour and Grain also told me that they take a 15 pound sample and bake with it before they make any purchases. They are looking for loaf volume, texture, and taste.

Another commercial "variety" I'd like to discuss today is Prairie Gold, a mix used by Wheat Montana near Three Forks. This isn't a single variety, but is actually a mix of several different varieties that are all hard white spring wheat and are ground using an impact milling process. Wheat Montana requires a maximum moisture content of 10% in their wheat. They also require 14.5% protein in their Prairie Gold wheat. I'll let Jane comment more on the baking quality of this flour.

With increasing food costs, I have found value in purchasing and storing grain and flour. My family and I enjoy grinding and baking with these local varieties. Both Montana Flour & Grain and Wheat Montana have minimums that they adhere to so they can pass quality standards on to consumers. I would invite you to visit their websites at: <http://www.montanafLOUR.com/> and <http://www.wheatmontana.com/>.