

## All Wheat is Not Created Equal

### AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

When most people hear wheat I suspect that they think of the nice golden waves of fields about to be harvested and maybe they'll think about flour but that's probably the extent of it. If we happen to be cooks or bakers we generally buy an all purpose flour and use it for everything. But wheat is an old and complex "group". Ancestors of wheat go back to before 7000 B.C. Wheat was planted in the US as early as 1602.

Wheat was planted in Kansas probably starting with the first farming settlers in the mid 1800's. Legend has it that when Mennonite settlers left Russia in the 1870's they brought with them as much Turkey Red wheat as they could carry. When they arrived in Kansas in 1874, the Turkey Red wheat was planted and flourished as it was well adapted to our Kansas climate.

Officially there are eight classes of wheat recognized in the wheat trade. Two of those are mixed and unclassified wheat which serve as catchall categories. But of greater interest to us are the six specifically named classes of wheat: Durum wheat, Hard Red Spring wheat, Hard Red Winter wheat, Soft Red Winter wheat, Hard White wheat and Soft White wheat. The color designation of white and red are quite descriptive especially if you have samples of the wheat in front of you. But note that the red designation is more of an amber color, but certainly redder than the white wheats. Hard and soft designations are somewhat subjective. If you bite on a mature kernel of soft and hard wheat, they'll both seem hard between your teeth. But in the milling industry they mill quite differently!

The wheats have different baking characteristics and each type is highly desirable for certain food production. Hard Red Spring is the standard for making bread. Hard Red Winter wheat is very nearly equal for making bread, at least the better quality winter wheats. Most of the wheat we grow in Kansas is Hard Red Winter. Winter wheat is planted in the fall, it starts growing, over winters as a small plant and then finishes it's growth the following spring with harvest usually occurring in late June and early July. Spring wheats are planted in very early spring and harvested later in summer. These are more often grown in areas of the northern US where winter wheats are less likely to survive the winter. Spring wheats don't grow well in Kansas because of our hot and often dry summers.

Soft Red Winter wheats are generally lower in protein which is an important part of the baking characteristics. Soft red winter wheats are most often used in cake, biscuit and cracker production. Kansas grows a fair amount of soft red winter wheat in southeastern Kansas. The White Wheats are heavily used in pastry flours as well as shredded and puffed breakfast foods. White wheat is prized for producing Asian noodles as well. Kansas has started growing more Hard White Winter wheat in recent years mainly in western Kansas.

The final class, Durum wheat is of great interest. Its flour is often called semolina and is the preferred flour to be used for making high end pasta as well as couscous. In the US, durum production is pretty much a speciality of the northern plains, particularly North Dakota.

Speciality flours are becoming a growing market and can be found in most grocery stores. I need to also point out that there is NO GMO wheat in commercial production in the US or Canada, or for that matter anywhere in the world. While it has been created in laboratories, and grown in experimental fields it is not in the food chain. Paying extra for wheat flour labeled as non-GMO is a waste of money.