



Extension FactSheet

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Classes and Uses of Wheat

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The primary use of wheat is to produce food for humans. Grain that is not good enough for human food is used for animal feed. Many different food products are made from the different classes of wheat. Durum wheat is used to make pastas. Hard red wheat is used to make loaf bread and other products. The soft red winter wheat grown in Ohio is used to make cookies, cakes, donuts, and other fine pastries. Often, flour from different classes of wheat is blended to make special flours for unique food products. The various classes of wheat are described here.

Durum Wheat, the hardest of all U.S. wheats, is seeded in the spring and contains a high amount of protein (12–16%), which is good for pasta products — macaroni, spaghetti, and other noodles. Durum wheat is grown mainly in North Dakota and has subclasses such as Hard Amber Durum, Amber Durum, and Durum wheats. Total acreage is about 3.2 million acres.

Hard Red Spring Wheat contains the highest protein content (13–16.5%) making it an excellent bread wheat with superior milling and baking characteristics. Hard red spring wheat is grown mostly in Montana, the Dakotas, and Minnesota. This wheat is seeded in the spring and may have either a hard or a soft endosperm. Subclasses are Dark Northern Spring, Northern Spring, and Red Spring wheats. Total acreage is about 13.8 million acres.

Hard Red Winter Wheat is the class of wheat used mostly for bread and all-purpose flour. This wheat is fall-seeded, has medium to high protein content (10–13.5%), and can have either hard or soft endosperm. Hard red winter wheat accounts for more than 40% of the U.S. wheat crop and half of U.S. wheat exports.

This wheat is produced in the Great Plains, between the Mississippi River and the Rocky Mountains, and from Texas to the Dakotas and Montana. It has a wide range of protein and good milling and baking qualities. The flour is used to produce bread, rolls, some sweet goods, and all-purpose flour. Total acreage is about 23 million acres.

Hard White Wheat is the newest class of wheat to be grown in the United States. Hard white wheat is closely related to red wheats except for the color genes and has a milder, sweeter flavor, equal fiber, and similar milling and baking qualities. Hard white wheat is used in yeast breads, hard rolls, bulgur, tortillas, and oriental noodles. This wheat is used in domestic markets and is exported in limited amounts. There are no subclasses. Total acreage is about 0.3 million acres.

Soft Red Winter Wheat is seeded in the fall, has a low to medium protein content with soft endosperm, and is used to make cakes, pastries, flat breads, and crackers. It is grown east of the Mississippi and has no subclasses. Ohio is the leading producer of soft red winter wheat followed by Arkansas, Illinois, and Missouri. Ohio wheat is known for making higher-quality flour than that coming from any other soft red winter wheat-producing state. Total acreage is about 13.0 million acres.

Soft White Wheat is used much the same way as soft red wheat (for bakery products other than bread) and is grown mostly in the Pacific Northwest and to a lesser extent in California, Wisconsin, Michigan, and New York. Soft white wheat has low protein and high yields. Subclasses are Soft White, White Club, and Western White wheats. Total acreage is about 8.3 million acres.

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