

Wheat Background

Wheat can be grouped into two major types: winter wheat and spring wheat. Winter wheat is planted in fall, with time to grow several inches tall before winter arrives. The plants go dormant for winter and resume growing as soon as spring rains arrive. Spring wheat is planted as soon as the soil is dry enough to work, the earlier the better. Utah wheat farmers grow primarily hard red winter wheat, which is used to make breads and hard rolls. Soft white wheat, which is used as a cake or pastry flour, is also grown in Utah.

Environment — Wheat is a cool season crop. Growth begins at temperatures of about 37 to 39°F. Its optimal growing temperature is 77°F. Wheat prefers a frost-free period of about 100 days.

Planting — Spring wheat is typically planted as soon as the soil is dry enough to work. (Driving a tractor over wet soil can compact the soil, making it difficult for plant roots to grow and for water to enter the soil). Wheat is planted in rows five to six inches apart by a machine called a grain drill. Pulled behind a tractor, the drill opens a trench in the soil, drops the seeds into the trench, and then pulls soil over the top of the newly planted seeds.

Growing Cycle — The seed begins to grow when there is enough moisture in the soil. Growth begins when tiny roots stretch down into the soil. Eventually, a small shoot pushes upward through the soil. Tissue within the wheat seed provides the plant with its first nourishment. As the plant grows, it uses the sun to make food in its leaves. Its roots also get food (minerals and water) from the soil. In the spring, the wheat plant grows six to eight leaves per stem and sends up three to ten stalks of golden flowers called heads. If the plant is fortunate enough to avoid disease, kernels within the wheat head will grow healthy and plump for harvesting.

Harvest and Processing — Wheat must be dry before it can be harvested. In Utah, most harvesting occurs in late July or early August. With one pass through the wheat field, a machine called a combine is used to cut, separate, and clean the wheat. The farmer stores the harvested grain in bins on the farm or at storage structures called elevators. From there, the wheat is shipped to a mill where it will be ground, sifted, and blended to produce different kinds of flour. Whole wheat flour contains all the components of the original seed. The outer layers of the wheat kernel, called bran, are removed from white flour. Bran has a slightly bitter taste, is rich in vitamins and minerals, and is often added to breakfast cereals and breads for nutritious fiber.

