

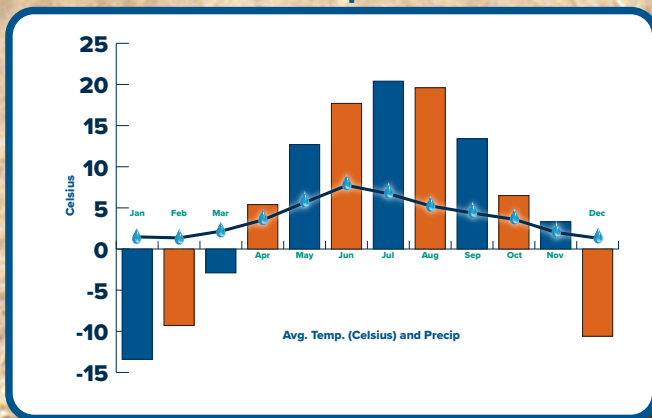
ABOUT NORTH DAKOTA

- ◆ North Dakota became the 39th state in the U.S. on November 2, 1889.
- ◆ North Dakota has a population of 775,000. The state is very rural with about 90 percent of the state's land area in crop production and cattle ranching.
- ◆ Major industries in North Dakota include agriculture, manufacturing, coal mining and oil and gas exploration, extracting and refining.
- ◆ The landscape in North Dakota varies, from the flat, fertile fields of the Red River Valley in the east to the rugged hills of the Badlands in the west.
- ◆ The yearly average temperature in the state is about 40° F (4° C) with average annual precipitation of 18 inches (46 cm).

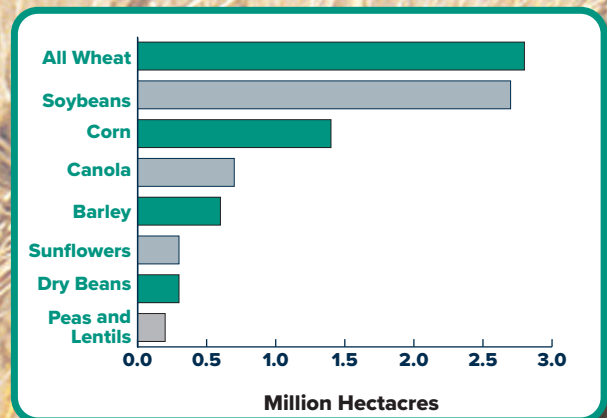


NORTH DAKOTA AGRICULTURE

Average Monthly Temperatures and Precipitation



Average Planted Area of ND Crops



- ◆ There are about 25,000 farms in the state with the average farm size being 1,500 acres (600 hectares). Some farms are 3,000 hectares or larger in size.
- ◆ North Dakota is a leading producer of spring wheat, durum, barley, dry edible beans, canola, dry edible peas, sunflower, flax and honey. The state also produces large amounts of corn, soybeans, sugarbeets and potatoes.
- ◆ Producers generally sell their crop to one of the more than 300 local elevators in the state, who then market the crop domestically or for export. Railroads are the major source of transportation.
- ◆ There are 5 wheat mills, 3 durum mills and 3 pasta plants.
- ◆ The state has on-farm storage, totaling 920 million bushels (25 million tons).



NORTH DAKOTA'S GOLDEN CROP



 NORTH DAKOTA
WHEAT COMMISSION
Building Bigger Better Markets



WORLD'S FINEST WHEAT



BRINGING WHEAT TO THE WORLD

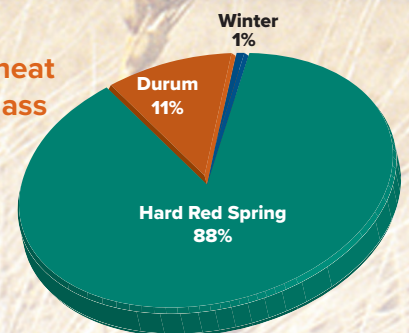
COMMITTED TO EXCEEDING CUSTOMER EXPECTATIONS

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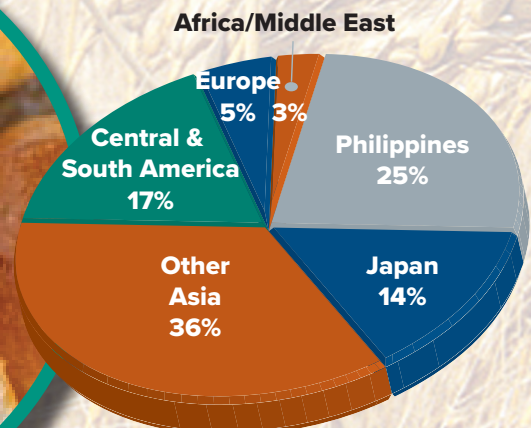
HARD RED SPRING WHEAT

- ◆ North Dakota leads the country in the production of hard red spring wheat (HRS), accounting for nearly one-half of the U.S. crop. Montana, South Dakota, Minnesota, Idaho and Washington also grow HRS wheat.
- ◆ HRS is planted in April and May and harvested in late-July through early September.
- ◆ Average U.S. production is 500 million bushels (13.6 million tons) grown on approximately 11 million acres (4.5 million hectares) each year. Average yields are 45 bushels/acre (3 tons/hectare).
- ◆ Hard red spring wheat is a specialty wheat known for its high protein content (15 to 17.5 percent dry basis), and strong gluten properties. It is used to make the world's finest yeast breads and as a blending wheat to "improve" lower quality flour.
- ◆ The cultivars, or varieties that producers grow are developed by both public and private breeding programs. Public programs are supported by state, federal and producer dollars.
- ◆ The ND Wheat Commission invests heavily in wheat research, especially for disease resistance and evaluation of functional quality in the breeding program.
- ◆ One-half of the hard red spring wheat produced in the U.S. is exported. Asia is the largest export region, followed by Central and South America, Europe and Africa.
- ◆ Pricing – The Minneapolis Grain Exchange is the universally used futures trading market for HRS.
- ◆ Quality Strengths of N.D. HRS
 - ❖ High protein content
 - ❖ Strong dough properties
 - ❖ High water absorption
 - ❖ Large loaf volumes

North Dakota Wheat Production by Class



Export Destinations



DURUM

- ◆ North Dakota is the largest durum producing state in the U.S., accounting for about one half of total production. Production in Montana accounts for another 35 percent, with the remainder coming from Desert Durum production in California and Arizona.
- ◆ Desert Durum harvest is in June, with MT and ND durum harvest in August and September.
- ◆ Producers in North Dakota plant durum on an average of 900,000 acres (360,000 hectares), with total production of 35 million bushels (1.0 million tons). Average yields are 40 bushels per acre (2.7 metric tons/hectare).
- ◆ Durum production is concentrated in the northwest and southwest corners of the state due to less disease pressure and a more arid climate.
- ◆ Hard red spring wheat and durum compete for acreage in North Dakota. Typically producers need a premium to plant durum because of the agronomic challenges and greater market sensitivity to quality.
- ◆ North Dakota State University is the largest public breeding program in the state. Current breeding priorities are improved disease and insect resistance, better color and low cadmium. There is limited private breeding program investment in durum.
- ◆ Durum is primarily used for pasta in the United States. Internationally it is also used for couscous and to a limited extent for bread.
- ◆ Two-thirds of U.S. durum production is used domestically while the other third is exported.
- ◆ Pricing in durum is less transparent than for other classes of wheat due to the lack of a futures market, more concentrated production and a consolidated industry.

Quality Strengths of N.D. durum

- ❖ Bright yellow semolina
- ❖ High protein content
- ❖ Strong gluten
- ❖ Low cadmium



Export Destinations

