How has agriculture changed Minnesota's landscape?

The land that became Minnesota was once covered with prairies and grasslands, lakes and rivers, forests and wetlands. People came and their survival depended on these rich resources. Over time, human activities changed the landscape. During your lifetime the landscape will continue to change. You may even create some of those changes yourself.

From Hunting and Gathering to Farming

Before the first white settlers arrived, tribal communities lived at peace with the natural world. These native peoples left plants and animals alone unless needed for food, shelter and clothing.

The Ojibwe (Anishinabe) lived in the northern lakes and forest regions of what is now Minnesota. They hunted, fished, and harvested wild berries, fruits and wild rice. They planted corn, pumpkins and squash, and tapped maple trees for syrup and sweet treats. Meanwhile, in the southern and southwestern plains lived the Dakota (Sioux). Their villages dotted the banks of the Mississippi, Minnesota, St. Croix and Cannon Rivers. Dakota men hunted for food. Dakota women were the farmers, raising corn, squash and beans.

Fort Snelling

By the 1820s the landscape was changing. Besides the Indian farmers, immigrants from Europe arrived. Fort Snelling was built where the Mississippi and Minnesota Rivers meet. The troops needed food, and Colonel Josiah Snelling ordered that 200 acres beside the Minnesota River be tilled for crops like corn and potatoes. Soon a lot of cropping was taking place around Ft. Snelling as immigrants settled nearby.

Free Land ... Head West!

The Homestead Act of 1862 allowed a citizen or immigrant to claim 160 acres of land not claimed by anyone else. This Act called out "Go West!" to thousands. Agriculture began to transform the prairies as the new homesteaders turned the sod and planted crops in the fertile soils. Small farms dotted the landscape. Families survived with a few kinds of food crops and a few farm animals.

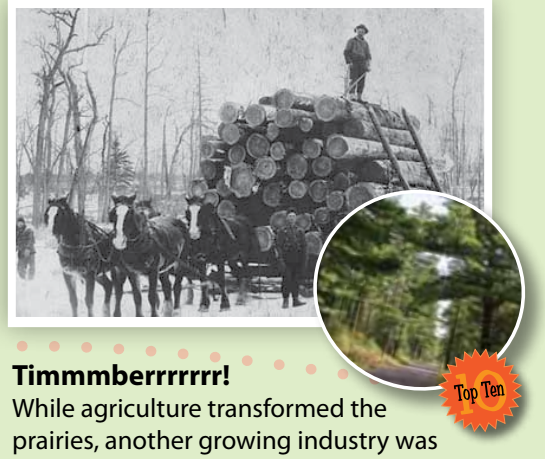
At the same time, the railroads brought huge changes as they moved people and products across the miles. Shops, businesses, towns and grain elevators sprang up along the tracks.

Photos Courtesy Minnesota Historical Society

Wheat is King

With new inventions of machines to help with the work, large farms became possible. Business people bought enormous tracts of land. By the 1880s, giant bonanza wheat farms spread across the prairies and the Red River Valley. Hundreds of horses and huge teams of farmhands and machines worked the fields.

Eventually bonanza farms produced so much wheat that a surplus was created. As profits fell, bonanza farms were divided and sold, making smaller farms again. Farmers grew a variety of field crops and animals.

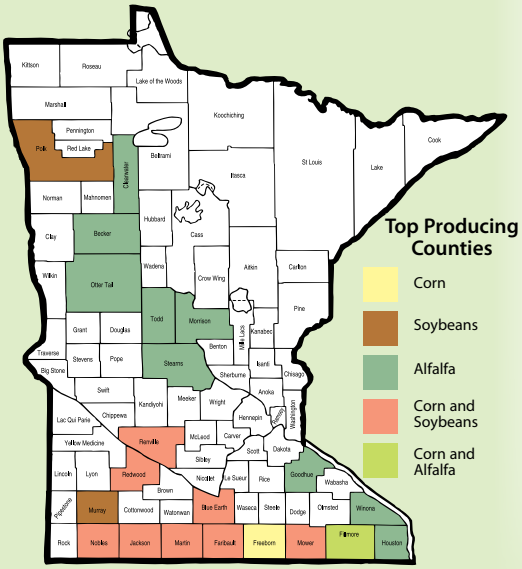


Timmmberrrrrrr!

While agriculture transformed the prairies, another growing industry was changing the northern forests. At the height of the lumbering era around 1900, over 40,000 lumberjacks were cutting timber in Minnesota's north woods. How did the logging of millions of white (and red) pine trees change the landscape of northern Minnesota?

How has agriculture changed Minnesota's landscape?

In the last AgMag you read about the transition of Minnesota's grasslands and prairies to farmland. The 20th century brought even greater changes in farming and land use. Two world wars, dust storms and drought, new technology and a roller-coaster economy all affected agriculture and the landscape.



Can you name the plant?

Read the clues to discover which of the *Ten Plants That Changed Minnesota* are featured on this page.

- *Native Americans were growing this crop long before Columbus arrived. Some of the harvest today goes to livestock feed. Most is used to make human food, fuel and other useful items. This crop covers about 7.5 million acres in Minnesota, making us the fourth largest producer in the U.S.*

_____

- *As a primary hay/**forage** crop, this plant made it possible to store year-round food for dairy and beef cattle. The growth of this crop and dairy farming went hand-in-hand. This valuable crop helps prevent soil erosion and improves soil fertility. The flowers are a source of nectar.*

_____

- *Minnesota is third in the nation for growing this "miracle crop," the world's leading source of edible protein and oil. Its oil is used as food for humans and livestock. It is used in ink, cosmetics, fuel, paint, plastic and much more.*

_____

As you know more about where these Minnesota crops grow, how would you describe the landscape of these counties today? _____ _____

Crops Helping Change Minnesota's Landscape

King Corn

*Yields have soared from 39 bushels/acre in 1959 to 177 bushels/acre in 2010, due to cold-hardy varieties produced especially for Minnesota. The U of M has introduced nearly 200 **hybrids**. In 1992, TIME magazine designated hybrid seed corn as one of the most significant events that shaped our world during the past 1,000 years.*

Try This! Corn has more than 3,500 uses in commercial and industrial products and manufacturing processes. Name at least 25!

Awesome Alfalfa

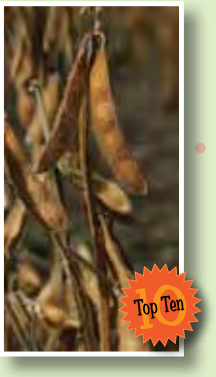
*Alfalfa has the high protein and easily digestible fiber that's a perfect food for dairy cattle. This **legume** crop is more nutritious than native pasture grasses. As farmers grew their dairy herds, they planted fields of alfalfa on the landscape.*

Winner! ***Grimm alfalfa*** is named for the Carver County farmer who developed it with seeds he brought from Germany. It could withstand our cold winters or summer droughts much better than any other alfalfa could. Our soil and topography provide just what it needs.

Super Soybeans

In 1904 George Washington Carver changed the way people thought about soybeans: His studies proved they are not just a forage crop but also a valuable source of protein and oil. Today our landscape includes vast soybean fields as well as the many factories that process soybeans into products.

Try This! Go on a soybean hunt in your kitchen, basement and garage. On how many labels can you find soy listed as an ingredient?



Photos Courtesy University of Minnesota Agricultural Experiment Station

Ten Plants That Changed Minnesota
Alfalfa, American Elm Tree, Apples, Corn, Purple Loosestrife, Soybeans, Turf Grass, Wheat, White Pine, Wild Rice

How has agriculture changed Minnesota's landscape?

You have learned that the Minnesota landscape has transformed over the past 200 years. In the 20th century, farms grew in size and productivity. The 160-acre homestead of the 1800s gave way to the thousand-acre farm of the late 1900s. Crop and livestock production intensified, further changing the landscape.

Plants and People On the Move

Technology and modern farm machinery meant fewer people were needed on the land. People flocked to cities. The population grew. Thousands of acres of farmland were converted to suburbs, shopping areas, highways and airports. In 1950 for the first time more Minnesotans lived in the city than in the country.

The rise of cities and suburbs, plus increased travel, trade and transportation, affected plants that changed Minnesota, too.

Can you name the plant?

Read the clues to discover the *Plants That Changed Minnesota* featured on this page.

- *This is the largest irrigated crop in the U.S. Recreation and beauty are two benefits, but it takes many resources to keep it green.*

_____

- *This beloved shade tree was ravaged by disease. Millions of the sick trees had to be cut down.*

_____

- *The University of Minnesota is a world leader in developing varieties of these plants, one of which gives us our state fruit.*

_____

- *Brought into North America from other countries, this pretty but fast-growing plant has become a big problem for fields and wetlands.*

_____

Shady Sentinels

American Elms were fast growing shade trees that beautified and cooled our neighborhoods. They provided habitat for birds and other critters. Then, in the 1970s, Dutch Elm disease struck. Many trees had to be cut down. Losing them deeply changed the landscape. Luckily, disease-resistant varieties of the American Elm tree have since been developed and elms are on the rise again.

Q. *Why is it smart to plant a variety of trees?*

Going Green

Turf and lawn grass became a big part of the landscape as yards, parks, golf courses and open spaces grew. Grass is the leading agricultural crop in many states today! Well-kept grass is beautiful to look at, but there's a challenge. Keeping grass green uses lots of water and often chemicals, too.

Q. *What can people do to have nice lawns, but use less water or chemicals on the grass?*

Apple-icious

Over 7,000 varieties of apples grow worldwide. Years ago, nobody thought apple trees could grow in Minnesota. The University of Minnesota changed that by developing new varieties that survive our winters. Now we're a world leader for growing these delicious fruits. Unscramble the names of these Minnesota-bred apples. Circle ones you have tried.

ycrpHiones

TeSewanog

teaZsr

bristFote

IdoenHogy

Beautiful But Beastly

Purple Loosestrife is a non-native species brought in to the U.S. from Europe and Asia. It spreads quickly and invades our wetlands and marshes, crowding out native plants. It affects food sources for marsh insects, fish, animals and birds, and impacts the whole marsh ecosystem. It can invade fields and crowd out field crops, too. What once seemed harmlessly beautiful has become an environmental threat.

Q. *How did purple loosestrife get to Minnesota? Why did colonists value it? Find out if it's in your community. What's being done to control its spread?*

Photos Courtesy University of Minnesota Agricultural Experiment Station

The Top Ten

Ten Plants That Changed Minnesota

Alfalfa, American Elm Tree, Apples, Corn, Purple Loosestrife, Soybeans, Turf Grass, Wheat, White Pine, Wild Rice