

CITY OF AURORA



Antique Farm Equipment Self-Guided Tour

PLAINS CONSERVATION CENTER



SCAN ME

This self-guided tour takes you on a journey to the Colorado prairie in the late 1880's. Imagine you are a traveler, leaving the cities of the east coast in search of healthy land you can call your own.



Once you arrive in eastern Colorado the first thing you need to do is build a home.



THE GRASSHOPPER PLOW (PAD 1A)

The Colorado prairie does not have many trees so you must use the only resource available to you, prairie grasses (sod).



Grasshopper plows cut the sod into strips 12 inches wide and 4 inches thick. Using a spade or corn knife, the strips were then cut into 3-foot lengths. The sod bricks were stacked on top of each other to construct a home.



STEEL BEAM WALKING PLOW (PAD 1B)

During the construction of your home you also need to ensure your family has food to eat, so you decide to start planting crops like wheat and corn. The first task you would likely do is to plow the soil.



This plow breaks and rolls the soil to mix up the humus (organic material) and add air into it, creating fertile ground in which food crops can grow.

JOHN DEERE SULKY PLOW (PAD 1C)

This plow allows soil to be thrown in one direction by alternating which plow bottom is in the ground. The farmer is seated and begins at one end of the field and plows back and forth, using less energy than a walking plow.



John Deere Model 383



HORSE DRAWN DISC (PAD 2A)

After plowing, the disc creates a deep, level, pulverized seed bed. It prepares the fields for planting by loosening the soil and making it easier for moisture to soak into the soil.



SULKY DISC PLOW (PAD 2B)

The sulky disc plow was excellent for thick, sticky, gumbo-like prairie soils. This machine was used in fields that were already plowed to loosen the soil as much as possible.



Modern day equivalent

Prairie soils have developed over the past 2.5 million years becoming some of the most nutrient rich soils on Earth. Years of nutrient build up make them difficult to plow.

WALKING HARROW (PAD 3A)

Now that the soil has been plowed, it's time to till in preparation for seed planting.



The walking harrow is pulled by a horse as the farmer walks behind it. This tool smooths the soil after discing and tills it before planting seeds, or after, to lightly cover them up. It's also used to break up crop residue and uproot weeds.

HORSE DRAWN HARROW (PAD 3B)

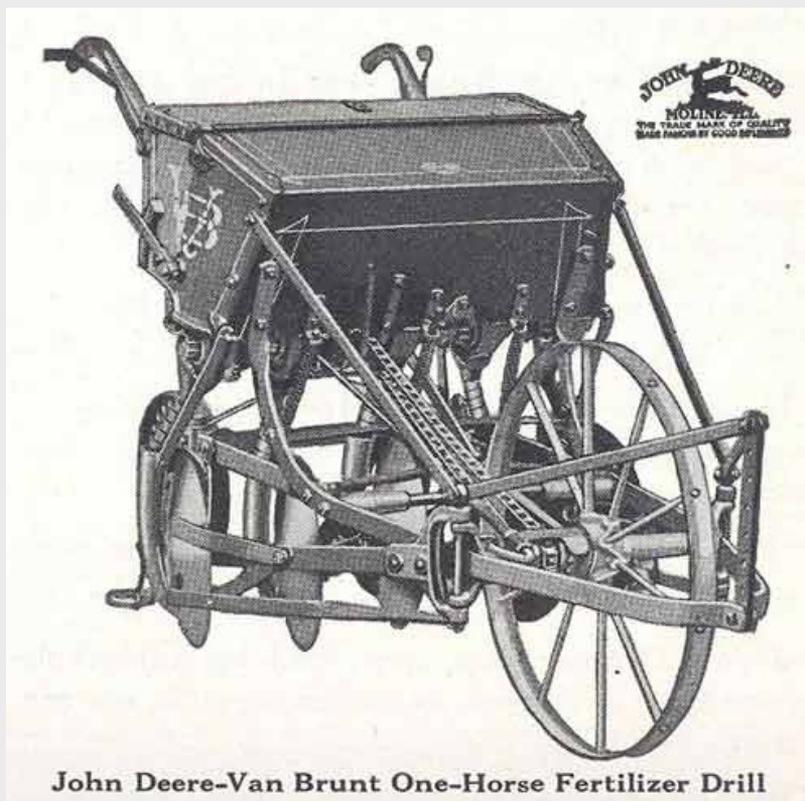
The horse drawn harrow is another machine used by farmers to till the soil and cover planted seeds. This one is larger and can cover more area than the walking harrow.



Modern day equivalent

WALKING SEEDER (PAD 4A)

Now that the soil has been plowed and tilled, it's time to place the seeds in the ground.



This seeder was pulled by a horse as the farmer walked behind it. It was used to plant seeds for grains such as wheat and oats.

Grains typically refer to the seeds of plants in the grass family, Poaceae. Grains refer to wheat, rice, oats, barley, rye, etc.

7 ROW GRAIN DRILL (PAD 4B)

This seeder is more advanced than the walking one. The wheels packed soil over seeds after they were planted.



Humans started eating grains 75,000 years ago. They harvested the grasses that grew naturally near their community. People began planting and harvesting grains 11,000 years ago.

HOOSIER 9 ROW GRAIN DRILL (PAD 5A)

This is another tool used to plant grains in evenly-spaced rows. Wheat and oats were some of the more common grains in the late 1800's.



Oats date back 32,000 years and were gathered and ground by paleolithic peoples. There are many wild oat species but the cultivated species we typically get from the grocery store is called *Avena sativa*.

SICKLE BAR MOWER (PAD 5B)

The sickle bar mower was used to cut grass, or hay, so it could be raked and stored to feed and care for livestock.



As you are building your sod home and planting grains for food, you also had to care for the animals you brought with you that are just as essential to your survival as crops and a home.



Modern day equivalent

BUCK RAKE (PAD 6)

The buck rake was used after the sickle bar mower to rake the hay into rows so it could be loaded onto a wagon and hauled back to the homestead.



The hay collected was winter feed for livestock animals.



SULKY PLANTERS (PAD 7 A, B, & C)

Along with grains, corn and beans are very important crops and were planted with these types of planters.



This is the modern equivalent of these planters.
More than 90 million acres of corn are planted
each year in the U.S.

CULTIVATORS (PAD 8 A, B, & C)

Once the seeds you planted grew to about two inches tall, you used a cultivator to till and aerate the soil around the crops. Doing this helped to eliminate weeds.



Cultivating is an organic alternative to using herbicides for weed control in modern agriculture.



Herbicides being sprayed on a corn crop

SULKY CULTIVATORS (PAD 9 A & B)

These cultivators are similar to the ones on pad 8 but have seats. This created less work for farmers but more for the horses.



Seated sulky cultivator vs a walk-behind cultivators

JOHN DEERE & P&O SULKY CULTIVATORS (PAD 10 A & B)

As technology advanced cultivators began getting larger and required more horses to pull them.

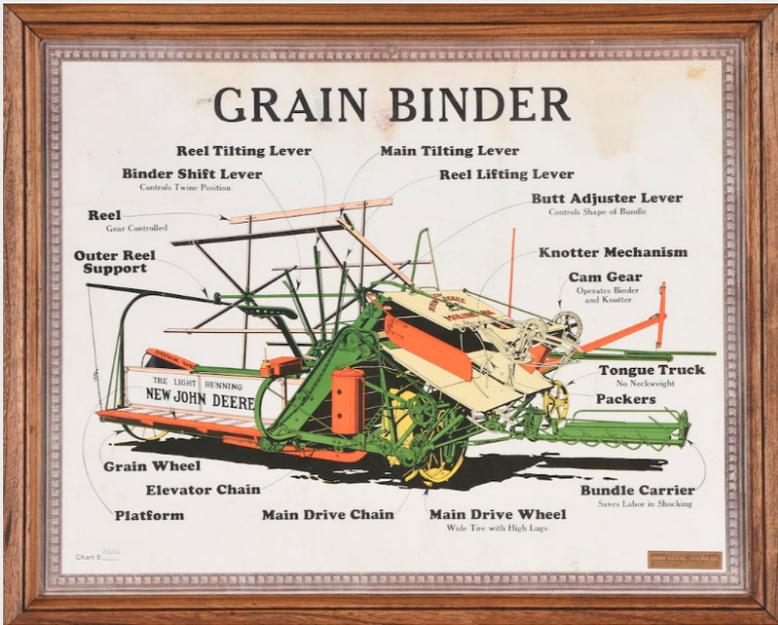


Today, we have gas-powered tractor cultivators, pictured below.



JOHN DEERE GRAIN BINDER (PAD 11)

It is now time to harvest the grains you planted using the latest and greatest in the 1880's, a John Deere grain binder.



After binding the grain you leave it in piles, called sheaves, to dry out.

INTERNATIONAL HARVESTER CORPORATION GRAIN BINDER (PAD 12)

The grain is cut, bundled, tied and dumped on a carrier that drops them on the ground in rows.



Today, a combine harvests, separates, and transfers the grains to other farm equipment.

DEERING CORN BINDER (PAD 13)

Along with grain, your corn is ready to harvest. Using a similar machine as pad 12, you bind the corn and leave it in shocks to dry.



Today, farmers use large machinery to harvest, shell and transfer the corn into wagons or trucks.

LETZ CHOPPER/SILAGE BLOWER (PAD 14)

Once your grass, hay, and grains are harvested, you might grind them using a machine like this one to create silage. Then you store the silage in a silo.



Today's version of a silage blower



Silage is grain that is used as feed for animals. To feed your family, you had to feed your animals.

WOODEN MANURE SPREADER (PAD 15)

Now that your fields have been harvested, they need to be prepared for next year by spreading manure over them since the soil has been depleted of nutrients. It's essential to regenerate the nutrients in the soil or else new crops will not grow.



Antique manure spreader



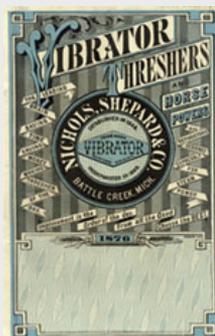
Today's manure spreaders

The manure is removed from barn stalls with a shovel and placed into the spreader. It is then spread into an even layer over the fields.

NICHOLS & SHEPPARD THRESHING MACHINE (PAD 16)

Also called a vibrator, your whole community would gather to see this beast delivered from the railroad. Small grain such as wheat, oats or rye go in and are separated into seeds, stalks, and husks.

The wagon next to it caught the separated materials.



This was the last step before you could finally prepare grains for you, your family and livestock, to eat. The extra was sold and/or traded.

DRAG PANS, GRADERS, AND BUCK SHOVELS (PAD 17)

Now that you, your family and your animals are fed, it is time for maintenance and other projects. You used these shovels, graders and drag pans to level soil and move dirt, prepare building sites for a home or a barn, make roads, or dig ponds for water.



The future of agriculture...

As machines grew more efficient, farmers were able to produce more food, but some farming methods didn't always work well with the land. Farming practices that focused on bigger and bigger harvests eventually led to the dust bowl in the 1930's, and contribute to air and water pollution today. As we look to the lessons learned over time, we can consider an alternative approach to providing food for ourselves.



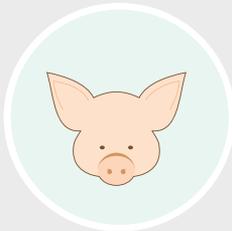
Regenerative Agriculture

Regenerative agriculture practices focus on working in harmony with nature by minimizing soil disturbance, using cover crops, reducing erosion, grazing livestock holistically, increasing crop diversity and composting. These practices can help us farm in harmony with the land, creating healthier food, healthier people and healthier climate.

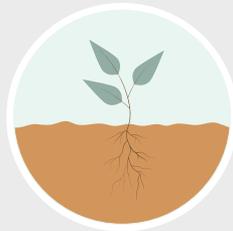
PRINCIPLES OF REGENERATIVE AGRICULTURE



Minimize Soil Disturbance



Integrate Livestock



Maintain Living Root



Keep Soil Covered



Maintain Crop Diversity



Plains Conservation Center

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Thank you for being a part of this self-guided tour. We hope you enjoyed it. Be sure to join us for many more educational opportunities at the Plains Conservation Center.