



No. 19

Agribusiness

CHANGES IN AGRIBUSINESS

Agribusiness is a new word which describes modern agriculture in the twentieth century. Many changes or innovations have occurred on the farm in recent times. One of the most noticeable changes is the new giant-sized machines that are used today. Combines, for example, can be operated by one person and can harvest as much grain as it once took ten farmers to harvest.



Since farmers can care for much more land, farms today are four times larger than those of the pioneer farmers. As the number of farms declined so did the population of farming communities. As a result many small towns that were once prosperous communities are nearly abandoned.

Other changes have also occurred. In the past, a farmer raised much of what he needed. When horses were used to work the fields the farmer raised hay and oats to feed them. The modern farmer depends much more upon other industries for products needed to operate. Fuel for tractors might come from the Middle East and fertilizer from Canada.

Nebraska's Own Tractor

Land owners of Madison County are cordially invited to visit our Norfolk plant and inspect the production and operation of The Albaugh-Dover "Square Turn Tractor. Read the advertisement below giving a few of its many superior advantages.

Albaugh-Dover Co., Norfolk, Neb.

AT LAST—A TRACTOR

That Will Go Anywhere and Do Anything You Can With Horses

—Turns completely around in its own length. Flows closer to the fence corners than you can with a team. Closes up at the finish better than you can with a team. Travels either direction at full speed and power. Carries plows and other tools in full view of operator. Reverses instantly and lifts plows by power to clear trash and other tools and turn corners. Will work in all kinds of soil—in wet places and on side hills too steep for a binder.

ALBAUGH-DOVER "SQUARE TURN"

The Tractor with the "Giant Grip Drive"

Has fewer working parts than any other tractor, having no clutch, no differential and no transmission gears, hence no expensive parts to replace. Every part accessible—easy to get at. Operates successfully on either Gasoline or Kerosene.

ALBAUGH-DOVER CO., 222 West 21st Street, CHICAGO

Write for FREE Catalog

For the Farmer, Ranchman, Stockman, etc.

ALBAUGH-DOVER CO., 222 West 21st Street, CHICAGO

Factory: Chicago and Norfolk, Neb.



No Clutch to Slip—No Gears to Strip
No Expensive Repairs

In the early 1900s tractors began to replace teams of horses or mules to pull farm implements. Many farmers did not want to change, but they realized that a tractor did more work at a lower cost than their horses. The change to tractors made it possible to cultivate larger farms. The Square Turn Tractor was manufactured in Norfolk.

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Today chemical fertilizers have replaced manure. Fertilizers are used by most Nebraska farmers to enrich the soil and produce more abundant crops. For a short time around 1920, fertilizer was manufactured by several companies in Sheridan County. Most of it was sold to cotton farmers in the South.



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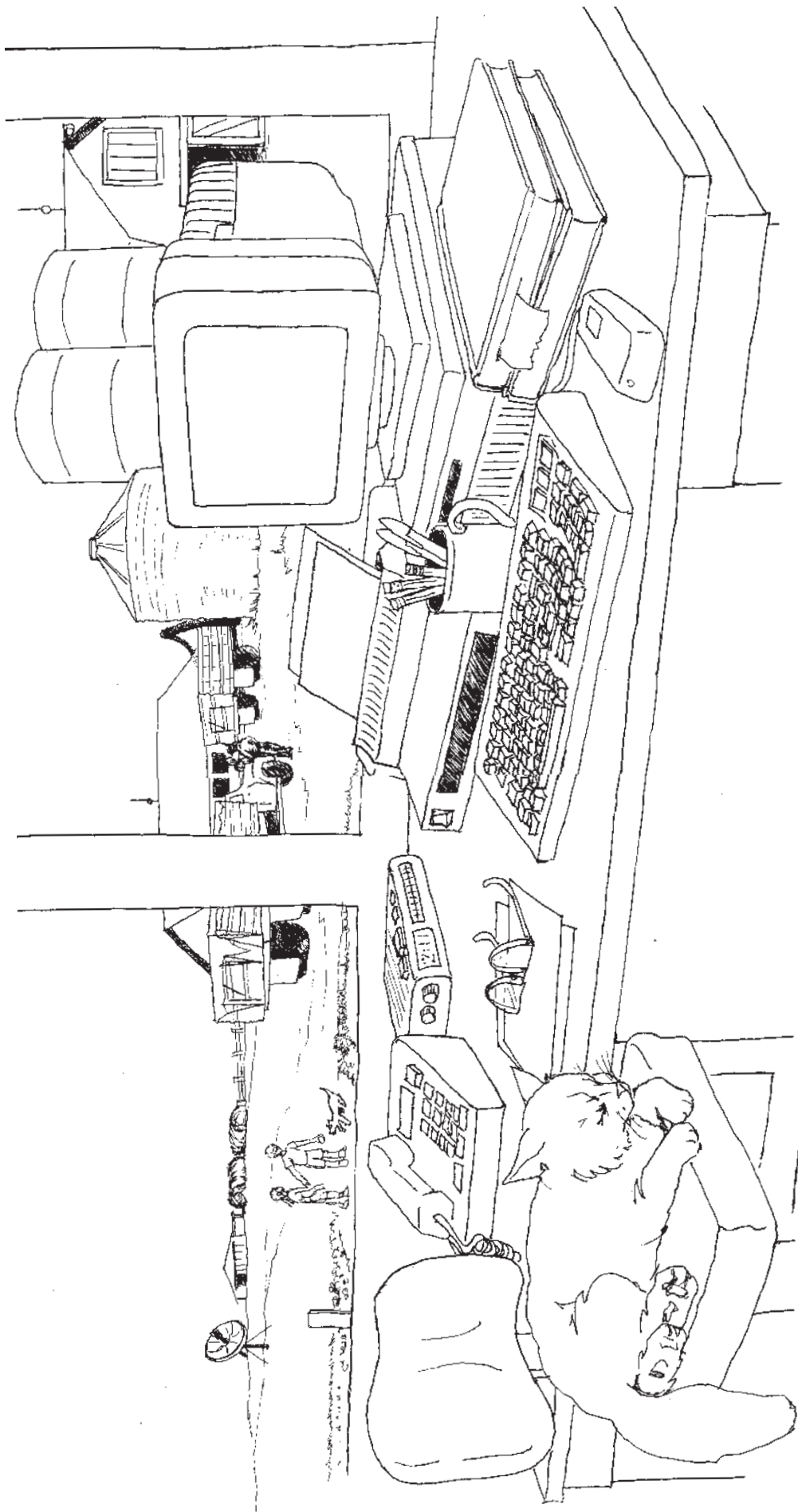
Insecticides are chemicals that kill insects. They have been used for many years. Many insects that damage crops are controlled today with insecticides. Without them the grasshopper plagues of pioneer days could return. Widespread crop losses would make it impossible for farmers to make a living. People everywhere would have to pay higher prices for food because of the shortages. This Buffalo Sprayer was manufactured in Columbus.

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Center pivot irrigation is an example of the technology that has allowed farmers to produce more crops. Water is pumped from deep wells on the farm and sprayed on the crops. With a center pivot one person can irrigate five times more land than with the older system using canals. Center pivots were developed in the 1950s. This one was made in Valley, Nebraska.



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Farming today requires many skills. Good business management is as important as planting and harvesting. Farming is risky business even for the best equipped farmer and success can depend on market prices and luck.

Some inventions helped the farmer for a time. Then farming practices changed. Not long ago every farmer raised chickens. Incubators kept eggs warm until they hatched. It was more dependable than relying upon the mother hen. This incubator was made in Lincoln, and the company sold its products nationwide. Incubators are rarely used today. Few farmers raise chickens, since small flocks of poultry are not profitable.

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Size No. 5—375-Egg Capacity Incubator. Floor space, including lamp, 34½x63 inches. Three egg trays 16½x30 inches. Shipping weight 130 lbs.

For Broiler Farms and General Farmers who go in strong for chickens this size is a general favorite. It produces big hatches of the right kind of chicks. I have shipped as many as 34 of these in one order to one man.

Built and set up complete with an extra large oil fount for lamp and all parts and accessories ready to run. Legs packed inside for shipment.

Price - - - - - **\$34.00**

Extra price lists and order blanks sent upon request.

EGG TRAY AND CHICK DRAWER

The multiple tray arrangement in the No. 4—250-egg size, No. 5—375-egg size, No. 25—500-egg size QUEENS is much appreciated by experienced operators. I have adopted a tray of 125-egg capacity as a unit, allowing for 10% oversize. These trays are convenient to handle and the operator can divide the eggs according to the breed. The partitions between the compartments are extended to the top with wire cloth, separating the eggs above as well as the nursery drawers below.

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To increase their earnings, farmers joined together to form cooperatives. These businesses returned the profits to the farmer members. Some co-ops processed farm products like this plant in Orleans. Other co-ops sold machinery, fertilizer, gas, oil, tires, or seeds to the farmer. One of the oldest co-ops is the Farmers Union, which had its beginnings in 1902 and is still operating.

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Gasohol is a mixture of alcohol and gasoline. The alcohol is made from corn and other grains. This growing market for Nebraska's crops is not a new one. This picture was taken in the 1940s. It shows the interior of a distillery in Omaha that made Argol, which was similar to today's gasohol.

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Some agribusiness people specialize in one part of farming. In the 1930s this farmer purchased a herd of young cattle from a rancher. The animals were raised and fattened in this feed lot on the corn the farmer had grown.

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Some crops are processed on the farm and used to feed livestock. Green corn plants are cut and put in a silo to make silage which is fed to cattle. This silo, made of tile, was an improvement over older wooden silos. In the 1950s a new silo was introduced under the brand name Harvestore. It was made of glass-covered sheets of steel and was nearly airtight so the silage would not spoil.

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In the past nearly every town had a flour mill to serve the needs of the community. These mills were eventually replaced by big companies that built huge mills in cities. The big mills could grind flour more cheaply. This mill at Neligh is now a branch museum of the Nebraska State Historical Society.

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Nebraska farmers have always experimented with new crops to find those that are the most productive and profitable. Milo, a grain used as livestock feed, was one of the more successful experiments. It is grown today on many Nebraska farms.

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Long ago, farmers sold their beef cattle at local markets. As transportation improved and the cities grew larger, cattle were shipped to stockyards. This one in Omaha was once the largest in the world. Here cattle were sold to packing houses where the animals were butchered. Then the meat was sold to stores where the farmer might go to buy a steak cut from an animal he had raised.

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The agribusiness farmer must have a good education to be successful. Agribusiness requires knowledge of business, markets, agronomy, and mechanics as well as farming. Many farmers are college graduates. The College of Agriculture in Lincoln is as much a major part of the University of Nebraska today as it was seventy years ago when this picture was taken.

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GLOSSARY FOR AGRIBUSINESS

Agribusiness-	farming and businesses associated with farming
Agronomy-	science and economics of farm crop production
Fertilizer-	any material put on or in the soil to improve plant growth
Herbicide-	chemical used to destroy unwanted plants
Incubator-	artificially heated container
Innovation-	new methods of farming, etc.
Insecticide-	substance used to kill insects
Refinery-	business establishment for separating and purifying raw materials
Silage-	green fodder (green corn stalks) preserved in a silo

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CORN AND ITS DERIVATIVES

Dextrose-	glucose found in corn and other plants
Ethanol-	alcohol fuel made from corn and other plants
Fructose-	fruit sugar found in corn and fruits
Germ-	the seed bud of corn, the part that sprouts
Glucose-	a sugar found in corn, fruits, and other plants
Gluten-	grey, sticky protein found in corn, wheat, etc.
Hull-	outer covering of a seed
Maltodextrins-	maltose, a sugar obtained from the breakdown of corn starch
Starch-	a white, tasteless carbohydrate found in corn, rice, wheat, and many other grains and vegetables
Solubles-	materials that can be dissolved
Syrup-	a sweet liquid obtained by processing corn, sugar beets, etc.

Quiz For Agribusiness

(Most answers are found above in Corn Derivatives)

1. Corn is America's major foodstuff and our major agricultural export. Corn may be used as **dofo**_____, **eflu**_____, and in **nuditsy**_____.
2. A typical bushel of corn weighs 56 pounds. A kernel of corn is 61% **ratsch**_____, 19.2% **tunelg**_____ and **ulhl**_____, 3.8% **ilo**_____, and 16% **trwae**_____.
3. Corn is separated into **ratsch**_____, **beluloss**_____, **tunelg**_____, **ulhl**_____, and **megr**_____.
4. It is then refined into many products including **edfe**_____, **athnelo**_____, **ruspy**_____, **oxdester**_____, **tucrofes**_____, **nocr ilo**_____, and **toalmixnedrts**_____.
5. In the list below underline the products you think contain a form of corn:

antibiotics	chewing gum	powdered sugar	malted milk
ceiling tile	oatmeal	plastic	fireworks
crayons	paint	shoe polish	puffed rice
chalk	insulation	chocolate syrup	soap