

Photo courtesy of the Nebraska State Historical Society

The black smoke is just one aspect of this 1910-model thresher eliminated by advances of technology.

Advances in research, technology keep farmers on their toes

By Kathy Chenault

Just as technology has advanced society, agriculture also has been touched by the magic wand of modernization.

Agriculture has evolved into a scientific industry emphasizing increased production and greater, more prolific yields. The work doesn't stop when the seeds are in the ground, but continues in the form of research for further advancement and more improvements.

Since 1900, roughly \$8 million have been spent in crop research at UNL, according to John Schmidt, an agronomy professor.

But the simpler days have not been forgotten.

The changes in agriculture during this century have been "astounding, almost unbelievable" according to a retired farmer.

Lewis Stunkel, now a Lincoln resident, began farming in 1925. He worked the fields of a rented 160-acre farm in south-central Nebraska with a six-horse team. When he retired in 1955, he owned about 400 acres, used three tractors, had a hired man and more equipment than he ever would have dreamed of owning.

"THERE WAS no way of knowing that farming would change like it has," Stunkel said. "It's just been phenomenal. It's hard to believe what modern technology has done."

Stunkel said he used horses on the farm for about 10 years and was not reluctant to switch to motorized power.

"I more or less had to switch. It was cheaper to have a tractor than the horses, and you could do more work in the same amount of time. I wouldn't have been able to keep them (the horses) even if I had wanted to."

Stunkel said that farmers couldn't be slow to make changes because as in the introduction of tractors, "The farmers had to adapt, they had to keep up."

"Some changes were gradual, but if you wanted to make money you had to use fertilizer and you had to irrigate like everybody else."

One way of measuring the increase in production and yields is to look at the difference fertilizers and irrigation have made on the output per acre, Stunkel said.

"I can remember when everybody was raising 35 to 40 bushels of corn per acre. If somebody raised 50 bushels, boy they were a good farmer," he said.

"NOW FOR that same area, 200 bushels per acre is a reasonable goal to shoot for."

friday, march 2, 1979

Schmidt said that advances and improvements generated through research and technology are generally well-received.

"At first glance research may look like an expensive, perhaps even foolish endeavor, but in the long-run it's cheaper," he said.

Schmidt, who specializes in wheat research, said the total worldwide production of that crop has nearly tripled in the past thirty years. He attributed that growth largely to the research done during that time.

"In the 1950's it became apparent that we could improve our production and that's when research was greatly increased," Schmidt said. "I think this example proves that a little money now for research will really pay off in the future in yields."

Schmidt added that another reason research is important is because there are so many variables in farming.

"We have to deal with resistance to diseases, and ways to eliminate weather or climate problems.

"Every part of the country is different. Some places have insect problems, some have to be able to withstand wind and of course in Nebraska, we have to have winter hardiness."

SCHMIDT SAID that the future of agricultural research is going to rely heavily on science.

"From this point on it's going to be increasingly difficult to keep up the improvement pace. But because on a worldwide level there is no overproduction in

wheat, we're going to have to be looking for more and different breakthroughs to increase yield and the farmer's income."

Even the grassroots of a nation, the heart of its culture and the basis of its economy is affected by time. But those changes are not bad, according to one who experienced them while working in the field and has watched more take place since he retired.

Stunkel said he has enjoyed watching and keeping up with the changes made in farming.

"I can remember when we used to all help each other out, but there isn't time for that anymore. Everybody has too much work of their own to do. But all the changes, all the ways that farming has been modernized, are good. They have made farming very interesting."

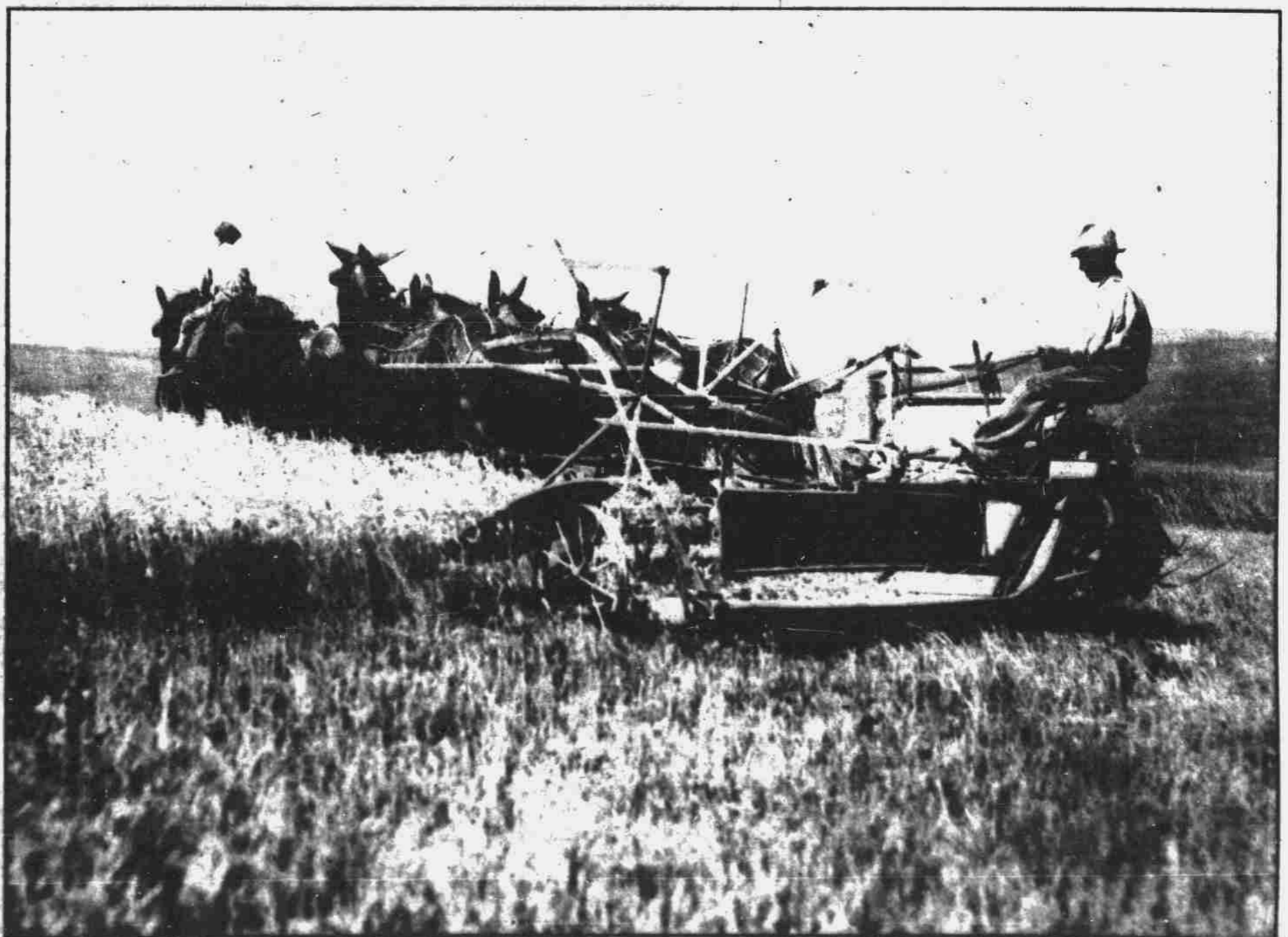


Photo courtesy of the Nebraska State Historical Society

It took six horses—two in front and four behind—to operate this piece of farm machinery each harvest season.

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