

FIRST DRAFT

HORSES VS HORSE POWER

1920 was an important year in the contest between tractors and horses

There was a debate in rural America after World War I: Would horses or tractors be the dominant source of farm power in the coming years?

A December 1919 op-ed piece in The Daily Sentinel, reprinted from the Denver Express, declared, “Even the farm tractor and the versatile flivver [Model T Ford] do not replace the horse



BOB SILBERNAGEL

... there will always, in peace and war, be a job left for the horse.”

That was becoming a minority opinion, however. The Sentinel also published articles extolling the benefits of tractors, such as this one from November 1920: “One man with a tractor plow can cover four or five times the acreage today that was possible to the man with a hand plow and a team 25 years ago.”

It turns out 1920 was a pivotal year for both tractors and horses in the United States. Sales of tractors had exploded since the end of World War I, peaking at 205,000 in 1920, nearly 10 times as many as were sold in 1916. However, a post-war agricultural depression struck the country the following year, and tractor sales decreased to about 75,000.

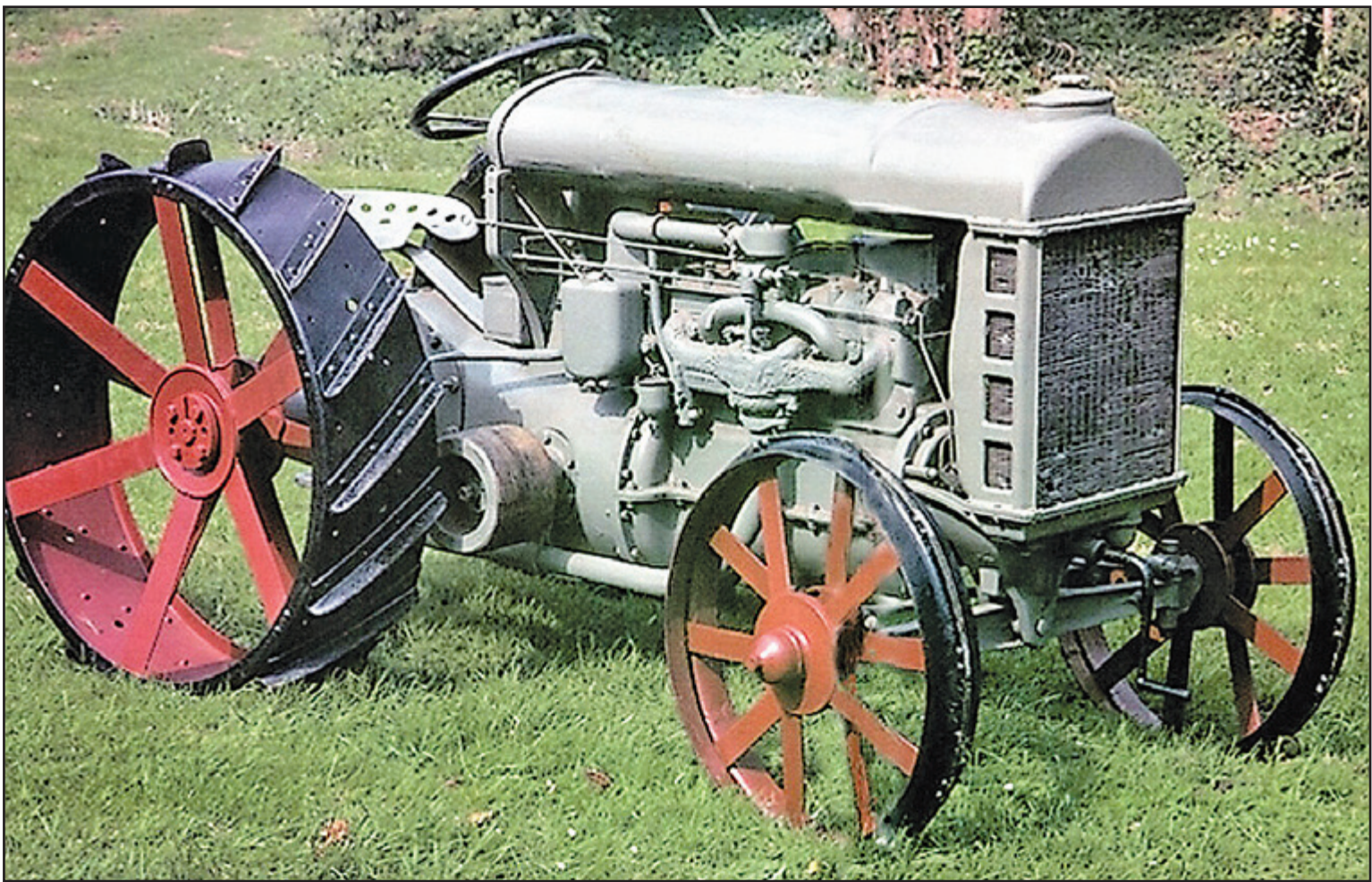
Moreover, horses still dominated the farm economy. The 1920 farm census showed 246,000 tractors on American farms, but 26 million horses, mules and donkeys. In fact, there were more domestic horses in the United States in 1920 than at any time in our history. (Wild horses were not included in the census).

But the numbers were moving in favor of tractors. By 1930, there were just under 19 million horses in the United States, and almost a million tractors. Thirty years later, there were under three million horses but 4.7 million tractors.

If you were farming in Mesa County in 1920, and you were considering modernizing by selling your draft horses to purchase a tractor, you likely looked at several different brands and models.

One of the most interesting was a Moline Universal Tractor like the one pictured in the advertisement for A.P. Ramsey on this page. The two-wheeled tractor that pulled various implements and had a towed seat for the driver looks awkward today, but it had substantial horsepower and inovations such as an electric starter.

Even so, there were plently of other options for farmers. According to the Smithsonian, there were 150 different companies manufacturing tractors



PUBLIC DOMAIN THROUGH WIKIMEDIA COMMONS

The most popular small tractor of the late teens and early 1920s was the Ford Motor Company's Fordson. This is a 1917 model, but they didn't change much from year to year.

in the early 1900s. That number began to delcine in the 1920s, and dropped significantly during the Great Depression of the 1930s.

I found advertisements for more than half a dozen different tractor brands in The Daily Sentinel in 1919 and 1920. The most popular seems to have been the Fordson, manufactured by the Ford Motor Co., and sold initially for about \$800. However, when competition grew stronger in the next few years, Henry Ford dropped the price to about \$400.

Being inexpensive, it became immensely popular. And if you wanted to purchase a Fordson tractor in Grand Junction in 1920, you went to a company that is still around today: Western Slope Ford.

Other companies selling tractors in Mesa County in 1920 included International Harvest-er, Case and Cleveland Tractors. However, one company that didn't have tractor advertise-ments in the Sentinel then was John Deere.

There werer plenty of adver-tisements for John Deere farm implements — cultivators, mow-ers, plows and harrows — but the company's tractor section was in flux.

John Deere had briefly tried to manufacture its own tractor early in the 20th century, but it proved too costly to generate many sales. So, in 1918, the company bought the Waterloo Boy tractor firm of Waterloo, Iowa. Waterloo built a two-cylin-

der tractor, and its basic engine design would be the foundation of John Deere tractors into the 1960s.

However, there is no indica-tion the company was selling the Waterloo Boy tractors in Grand Junction in 1920 or throughout the 1920s. The earliest advertise-ments I found in the Sentinel for John Deere tractors was in 1929. They were sold under the John Deere brand, not Waterloo Boy.

The Fordson, Case and sev-eral other early tractors ran on kerosene rather than gasoline. Kerosene could be purchased at hardware and farm stores, so it was easy to acquire and relatively inexpensive. However, kerosene only worked well in low-compression engines, and as gasoline became more easily ac-cessible with more gas stations, and tractor engines improved, kerosene was used less and less as a fuel.

Massive, steam-fired tractors that looked like railroad loco-motives had been used on some large farms and for applications such as road building in the late 19th century and early 20th cen-tury. But they were too expen-sive and too difficult to operate for small farmers.

Even so, some companies continued to push smaller steam-powered autos and tractors into the 1920s. Stanley Steamer automobiles were produced through 1924. And a Colorado company called Baker Steam Motor Cars manufac-

tured prototype steam automo-biles in Pueblo from 1918 to 1922 before going out of business. In some of its advertisements, Baker suggested it planned to sell small steam tractors, as well, but I could find no evidence the Pueblo company ever produced a tractor.

In the end, steam-powered ve-hicles, which required a longer start-up time, were heavy and costly, couldn't compete with autos and tractors using inter-nal-combustion engines.

Trying to decide which tractor would work best for a particular operation was no doubt a daunt-ing task. So, in 1920, the Univer-sity of Nebraska began testing different makes and models of tractors, and issuing reports on them.

The first report, which examined 65 tractors, wasn't published until 1921, and it didn't rank the tractors like modern in-ternet sites. However, discerning farmers could read the reports and see the drawbar and belt horsepower, fuel efficiency and braking power of each model. Some tractor companies began advertising their products based on the outcome of the tests.

The University of Nebraska Tractor Test Lab became the official tractor testing agency for tractors manufactured in the United States, and it continues to test today.

It's clear that by 1920, tractors were beginning to overtake horses as the primary source of

farm power, even if there were still far more horses than trac-tors. Additionally, for farmers in the Grand Valley who wanted to continue using horses, there were plenty of opportunities. Advertisements for work horses for sale ran almost daily in the Sentinel. There were also frequent auctions at which draft horses were sold.

There were also advertise-ments by individuals who want-ed to purchase or lease working teams of draft horses. But they weren't as numerous as those by people wanting tractors to help them work their fields.

Sources: Early editions of The Daily Sentinel at www.newspapers.com; “USDA Horse Total, 1850-2012,” Data Paddock, <https://datapaddock.com/us-da-horse-total-1850-2012/>; “Eco-nomic History of Tractors in the United States,” Economic His-tory Association, <https://eh.net/encyclopedia/economic-history-of-tractors-in-the-united-states/>; “Five Ways Tractors Changed American Farming,” by Amelia Fogarty, Smithsonian, March 1, 2018, www.si.edu/stories/five-ways-tractor-changed-american-farming; “Nebraska Tractor Tests, Made During 1920 at the University of Nebraska, Lincoln, Neb.,” published by Farm Imple-ment News, recovered through www.babel.hathitrust.org. Au-thor interview with retired John Deere engineer Carl Silbernagel.

Bob Silbernagel's email is bobsilbernagel@gmail.com.

The Moline Universal Tractor

Just unloaded two car loads of farm implements consisting of Mowers, Rakes, Binders and all kinds of tillage implements. Ours is the well known line of Moline Implements, Buckeye Mowers and Osborne Rakes. See me for anything in the farm machinery line.

A. P. RAMSEY

249 Main Street Phone Junction 249-W

IMAGES BY NEWSPAPERS.COM

ABOVE: The Cleveland Tractor Company, or Cletrac, offered small farm tractors with metal tracks instead of wheels. It briefly competed with the Caterpillar company, but was eventually absorbed by the Oliver tractor company. These ads ran throughout 1920 in the Sentinel. RIGHT: One of the most unusual tractors offered in advertisements in The Daily Sentinel was the Moline Universal, a two-wheeled powerhouse in which the operator sat on a seat towed behind the tractor. The company that made it later merged with other firms to become the Minneapolis-Moline tractor company. This ad is from June, 1920.

Cletrac
The Cleveland Tractor Co.

The War Taught Us a Tractor Lesson

WHEN power is needed over soft, wet or rough ground—on the battlefield or on the farm—only the tank-type tractor can “deliver the goods.”

The Allied Armies learned that lesson well in France and tens of thousands of farmers the world over have taken it to heart.

Take early spring plowing or discing. The Cletrac's two broad tank-type tracks get a firm grip on footing where ordinary tractors would “mire in”. The Cletrac goes right ahead and gets the plowing or discing done and out of the way when the ground is almost too soft for horses.

It's the first tractor into the fields in the spring. It isn't “soft” from the winter's rest. It will step right along from daylight to dark and be just as fresh the next morning.

The Cletrac's ability to stand up to the job for a full day's work, day after day in the spring when the going is “tough,” gives the Cletrac user from one to two weeks advantage and keeps him ahead of the season through the summer and fall.

In the hot, horse-killing haying and harvest days the Cletrac user can push his tractor to the limit—twenty-four hours a day if necessary. He makes the most of every minute of good weather. He gets bigger and better crops at a lower cost per bushel.

You'll find it worth-while to read “Selecting Your Tractor.” Send for your free copy or see the Cletrac dealer near you.

THE CLEVELAND TRACTOR CO.
“Largest Producers of Tank-Type Tractors in the World.”
19001 Euclid Avenue Cleveland, Ohio

HAND THIS WAY, NOT—

EASY ON A TRACK THE CLETRAC WAY

SPECIFICATIONS
Horsepower: 18 at 1000 rpm.
No. of belt pulleys: 1
Length: 96 inches.
Width: 30 inches.
Height: 12 inches.
Weight: 1450 pounds.
Turning Circle: 18 feet.
Traction (approx.) About 800 square inches.
Center to Center of Tracks: 18 inches.
Rear Pulley: Diameter 8 inches, Feet 6 inches.

Cletrac
TANK-TYPE TRACTOR