

Editor's Notebook



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Self-Steering "Robot" Tractors

Two companies at the California Farm Equipment Show this winter introduced new add-on "robot" systems designed to steer tractors automatically.

Trimble Navigation Ltd., Overland Park, Kan. (800-865-7438 or www.trimble.com) says its new autopilot system connects to your tractor's power steering and becomes a tireless assistant, controlling the tractor hour after hour with a consistency that few tractor operators can match. The system uses "real time kinematic" GPS, which controls the tractor to within inches.



Tractor fitted with Trimble system.

To install, you plumb the system into the tractor's power steering and mount a small terminal in the cab.

Beeline Navigator, Inc., of Fresno, Calif. (559-256-2333 or www.beelinenavigator.com) exhibited what it calls "cruise control for your tractor's steering". They say it allows all tractor drivers to consistently do the job of the best drivers, and also makes night farming much easier. Beeline also uses



Beeline's cab-mounted control unit.

GPS equipment, monitoring tractor position to within 3/4 in. at any time. Beeline has been automating various aspects of tractor operations for six years and claims to have more field experience than any other company.

Ag engineers are also working on "driverless" tractors. Here are a few reports we've seen recently:

- A Stanford University research team, backed by Deere & Co., has developed a satellite-based driverless tractor system. They say it's much more accurate than human operators, with control to within less than an inch in the field.

- The National Agriculture Research Center in Tsukuba, Japan, has been working on an unmanned tractor. Researchers have successfully performed all kinds of fieldwork with no driver on board. "No tractor driver could run as accurately as our automated GPS tractors," says a spokesman at the research center.

- French ag engineers at the CEMAGREF institute for agricultural machinery have created a "driverless" Renault tractor. A driver makes one pass to engage the tractor's satellite system, then lets the tractor do the rest. The tractor's controller can record a sequence of events for a field – speed, depth, etc. – and then be able to reproduce the same sequence a month or year later, as needed. Researchers say they're a couple years away from commercial introduction.

- At the Agritechnica farm show in Germany last fall, a company called Geo Tec Electronics introduced an auto navigation system that combines GPS with radar to operate tractors or other self-propelled machines with no assistance from an operator.

Other research projects into "robot" tractors, swathers and

other equipment are going on at Purdue University, the University of Illinois, Cornell University, and, of course, at every tractor manufacturer's engineering lab.

Deere Owners Respond: "We Like New Rotary Combine"

We had a lot of response to a piece in our last issue entitled "Deere Rotaries – A Few Months Later". Some Deere owners – and officials at Deere & Co. itself – objected to the fact that we quoted a Wisconsin reader who did not himself own a new STS rotary. He was simply passing along what he had heard about the new machine from other farmers.

Loyal Deere owners told us – in no uncertain terms – that they wished we had talked to guys who had actually run one of the new rotaries. So we tracked down a few operators who ran a Deere rotary last fall. Here's what they told us:

Randy Rogers, Sargeant, Iowa: Randy used a new 9650 STS Deere rotary last fall alongside a conventional 9610 Deere. "It's a very good, quiet machine with considerably more capacity than the 9610. We ran it with a new Deere 30-ft. flex head which has the new-style auger with retractable fingers across the width of the machine. This is a tremendous improvement. It feeds crop material through much better and lets us start 30 to 45 min. earlier in the morning because it handles the crop so much better. Setting this machine was a bit different than a conventional machine. We felt like we were starting over, but it was real user friendly. We found that we could get a better sample when we kept the machine full. Our only real concern with the machine is the straw chopper. Both the chaff and straw run through the chopper and it didn't seem to spread as well as the 9610. We run all no-till so it's important to us to get a wide, even spread. After harvest, Deere sent out an update team that went through the combine, making a few improvements. Great service from Deere."

Ryan Young, Young Farms, Underwood, Iowa: "I was fortunate enough to put about 75 hours on a Deere 9650 STS combine last fall. Contrary to what you stated in your article, you don't have to change the concaves on an STS combine when switching between corn and beans. And the rock trap is even better than on previous machines because the beater forces stones down into the rock trap.

"I had no problems last fall with the STS combine that wouldn't come with any other totally new combine. I ran it in tough soybeans infested with waterhemp and it worked great. Grain quality was excellent and we didn't plug the machine once. The new Deere flex platforms are very good. The extra fingers on the cross auger do a great job pulling in crop material."

Bruce Johnson, Hader Farms, Zumbrota, Minn.: Hader Farms has 15,000 acres of cropland and own four Deere 9610 combines. Last fall workers field-tested a Deere 9750 rotary, equipped with a 12-row header, in 170 bu. per acre corn. "We only got to use the rotary for 8 to 10 hours but we were very pleased with it. It appears to be a great corn machine, with tremendous capacity. We found it more user friendly than the Caterpillar Lexion 485 that we tested at the same time. We're interested in the rotary concept mainly because it's supposed to do a better job cleaning with less dockage."

100 Years Of Tractor Manufacturing

In 1902, Charles Hart and Charles Parr opened a tractor factory in the aptly named town of Charles City, Iowa. Within four years, 10 other companies had joined them to build and sell 600 tractors in the U.S. Four years after that, in 1910, 15 firms built and sold 4,000 tractors.

As competition among manufacturers increased, tractor prices fell 40 percent between 1910 and 1917, making the radical technology affordable to many farmers. By 1920, 166 companies produced 203,000 tractors, 140,000 of which were sold that year to U.S. farmers.

Now, 80 years later, we're down to just a handful of tractor manufacturers worldwide. (Excerpted from a column by Alan Guebert)

A 65-year-old today got all the way through school before the hot lunch program started. He got to 12 before penicillin was discovered, 26 before the polio vaccine, 36 before Medicare, 39 before seat belts, and 40 before the Surgeon General discovered cigarettes were bad for him!

Can You Imagine Working For This "Company"?

It has a little more than 500 employees with the following statistics:

- 29 have been accused of spousal abuse
- 7 have been arrested for fraud
- 19 have been accused of writing bad checks
- 117 have bankrupted at least two businesses
- 3 have been arrested for assault
- 71 cannot get a credit card due to bad credit
- 14 have been arrested on drug-related charges
- 8 have been arrested for shoplifting
- 21 are current defendants in lawsuits
- 84 were stopped for drunk driving in 1998 alone

Can you guess which organization this is? Give up? It's the 535 members of the U.S. Congress! (Agri-News, Montana)

How To Find A Lawyer

There's certainly no shortage of lawyers around but if you've ever needed to find one to apply for a patent, defend yourself in a lawsuit, or any other reason, you know the process of finding the right lawyer can be both difficult and intimidating.

A new on-line service called CaseMatch is designed to make the process easier. It lists 480,000 attorneys nationwide and attempts to match you up with a lawyer who has the skills you need. You remain totally anonymous until you actually contact a lawyer. "Choosing an attorney can be very intimidating. We've received hundreds of e-mails from people who say CaseMatch made the search process less painful," says Michael Custode, head of the new service. For more information, just go to www.casematch.com.

Vanishing Farmland A Myth?

The idea that increasing amounts of farmland are being gobbled up by suburban development is a myth, says Samuel Staley, author of "The Vanishing Farmland Myth".

Staley claims in his book that the rate of farmland loss has slowed considerably in the past 30 years, from a height of 7.3 million acres per year in the 1960's to a loss rate of 2.7 million acres in the 1990's.

And despite losses of farmland, Staley says the amount of land devoted to raising crops has remained constant over the past three decades.

Urbanization is not the main cause of cropland loss, which accounts for only 26 percent of the loss. The rest is from parks, recreational land, and forests.

Staley, who works as an analyst at a libertarian think tank in California, says urbanization is not jeopardizing prime farmland. Only 1 percent of prime farmland was converted to urban uses between 1982 and 1992.

Don't Quit

*When things go wrong, as they sometimes will,
When the road you're taking seems all up hill,
And you want to smile, but you have to sigh,
When care is pressing you down a bit,
Rest if you must, but don't you quit!*

*Life is queer with its twists and turns,
As every one of us sometimes learns,
And many a failure turns about,
When he might have won had he stuck it out.
Don't give up though the pace seems slow,
You may succeed with another blow.*

*Success is failure turned inside out,
The silver tint of the clouds of doubt,
And you never can tell how close you are,
It may be near when it seems so far.
So stick to the fight when you're hardest hit,
It's when things seem worse, that you must not quit.*
Anonymous

Bits & Pieces

- My mind not only wanders, sometimes it leaves completely.
- The trouble with doing something right the first time is that nobody appreciates how difficult it was.
- Ford Motor Company pays twice as much per car for health insurance coverage for its employees than it does for the steel that goes into each car.
- If people from Poland are called "Poles", why aren't people from Holland called "Holes"?