Planter Customizers Also Sell Parts, Service

An innovative Canadian company can make changes big or small to row-crop planters, turning single row units into twin rows, adding tracks, or doing a complete makeover. If all you need is parts, Kearney Planters can take care of that, too.

"We do a lot of service over the phone with customers across Canada and some in the U.S.," says Shaun, Kearney Planters. "We even shipped a customized 40-ft. planter to Romania."

The company carries millions of parts for a wide variety of brands, including Kinze. They also sell new planters. However, customizing planters is what got owner Barry Kearney into business in the first place. After 35 years it is still a key element, one that takes all forms.

"Our most common modifications are adding a coulter bar up front or adding vacuum where it wasn't, hydraulic down force, things like that," says Dilliott. "We can add a dry combo or set a planter up for use with tram lines or wheel tracks. It all depends on the customer."

More extensive changes are often requested. "Recently we changed a Kinze 3500 from a 15-row, 15-in. row planter to a 16-row with 8 sets of 7 1/2-in. twin rows," says Dilliott.

The new pattern had a 22 1/2-in. space between the sets of twin rows. This also moved the 4 wheels on the planter over rows planted by the rear units. Originally, they ran over 4 of the rows planted by the front pusher units.

"Moving the front planting units over 7 1/2 in. changed the center of the planter, so we put a second hitch on the front to move the tongue over 3 3/4 in.," adds Dilliott. "This way the tractor still pulls from the center of the planter."

Dilliott says he gets between 2,000 and 3,000 calls for service during spring planting, as many as 120 a day. And they aren't just from existing customers.

"If someone buys a new planter from us, they have my cell phone number, and I'm available 7 days a week," he says. "I don't go to bed without a callback. If they can't get a hold of us, how can they keep going?"

The folks at Kearney Planters say farmers can save money with custom-built planters designed for precision agriculture. Photo shows a Kinze 3500 being converted from a 15-row, 15-in. planter to a 16-row with 8 sets of 7 1/2-in. twin rows.

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By Lorn Manthey, Contributing Editor

Shop-Built Liquid Applicator Handles Two Products At Once

"Saving one or two trips across all our corn acres by side dressing and applying herbicide in one pass will probably pay for what we've got into this machine within two years," says southern Minnesota farmer Andy Mulvihill, who worked with his brother, Tony, and father, Tim, to come up with the idea.

The new applicator replaces a self-propelled sprayer that was also used to side dress urea when a dry tank was installed. They also hired additional custom spraying for burn down applications.

"Now that we've got one machine with a 30-ft. wider boom, we can get our applications done exactly when they're needed, we don't have to switch out the RoGator and we don't have the extra expense of custom spraying," Andy says.

They built the applicator by combining the framework and parts from two used sprayers, one with a 90-ft. boom and another with a 60-ft. Fifteen feet was added onto each end of the 90-ft. boom to create the new 120-footer. The boom frame has a 5 by 5-in. back beam and a 3 by 5-in. front beam. It's hinged at 65 ft. and supported by swivel caster wheels.

Andy says he used schematics supplied by Fast, the company that built the original sprayers, to build the new boom. He wanted two 60-ft. sections, but existing framework required one at 65 ft. and the other at 55 ft. Breakaways at each end are 6 ft. long.

To make a new cart frame Andy cut the front platform and hitch off the 90-ft. cart, then added new steel to build a reinforced frame 6 ft. longer. Wheel mountings were positioned 5 ft. further back than on the original cart so the 1,600-gal. tank in the back could be centered over the 18.4 x 38-in. tires. Andy says that helps offset the hitch weight created by the 1,000-gal. herbicide tank mounted crossways on the front.

Liquid is pulled from each tank with two Ace hydraulic pumps and directed into separate manifolds mounted in front of the herbicide tank. One manifold is configured to apply liquid N and the other one handles herbicide. Both tanks have agitation pumps. In-line valves allow both products to run simultaneously, or one can be turned off and the other will still run. Andy controls application rates with an InCommand 1200 Ag Leader monitor on the tractor.

Two sets of supply lines run the full length of the booms. The back one is used for herbicide and drop nozzles on the front set apply the liquid N. The monitor allows him to variable rate the N according to field maps loaded in the computer. The applicator's tanks can be filled at the same time with 3-in. supply lines that feed from their semi-trailer mounted tender.

"The toughest part of building this was doing the boom layout beforehand, making sure it would fold properly without pinching hoses or bending metal," Andy says. "I had a few glitches along the way, like breakaways that didn't work quite right, but nothing major that I couldn't re-work."

Andy figures they spent about 400 hrs. building the applicator and about $20,000 for the second used sprayer, tanks, steel and other parts they needed. They were able to sell some unused duplicate parts to offset part of the expense. "Now we can do two jobs at once with a larger machine, save trips across the field and be done in less time than before," he says.

Andy Mulvihill with his brother, Tony, and father, Tim, built this liquid applicator that lets them side dress liquid nitrogen and apply herbicide in one pass.

The big applicator is one of several projects the Mulvihills have built or renovated since the boys began working on complicated layouts and complex welding projects while in high school in the early 2000's. "We're not afraid to tackle big projects because we talk things over and do a lot of planning and layouts before moving ahead," says Andy. The brothers and their dad all have full-time jobs off the farm and together with their mother Susan, who handles the farm accounting and hauls most of the grain, they still efficiently run about 1,400 acres of corn and beans, most of it irrigated.

"All of us are extremely busy, so when it's time to plant, spray, irrigate or harvest, we have to be ready to roll," says Andy.

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Virtual Electronic Fence Controls Pasture Grazing

The concept of invisible fencing for dogs has spawned a new approach for pasture management by the Australian company Agersens. The company is currently testing its GPS-enabled eShepherd™ software that controls livestock movement by sending electronic signals to collars that the animals wear. Nancy Reilly of Agersens says "this system is the world's first smart collar for livestock. It allows a producer to move and monitor cattle 24/7 from a smart phone or tablet."

Reilly says that cattle fitted with an electronic eShepherd collar learn the boundaries of their "virtual fence" within a few days. If they move beyond the boundary coordinates loaded into the collars on their necks, a small audio tone is emitted followed by an electrical pulse. Reilly says the pulse is less than half that of an electric fence and cattle soon realize where they can and can't go.

The big difference between eShepherd and pet fencing is there are no wires with the cattle system. The collar that cattle wear holds a GPS receiver to continually map their wherabouts. It records grazing patterns, where the animal walks and when it rests. Alerts are sent to the producer if animal movement isn't detected within a 12-hour period. Electronics in the collar device are powered by two solar collectors on the collar.

Reilly says that pasture maps for eShepherd can be downloaded from Google earth or entered by GPS coordinates for property boundaries. The producer enters grazing areas within those boundaries from the touch screen of a phone or tablet. The boundaries are accurate enough to "fence off" sensitive vegetative areas, difficult hilly terrain, and take pressure off fences in poor repair.

Reilly says the system really provides exceptional rotational grazing management, unlimited flexibility for managing pastures, saves money on physical fencing, carefully monitors herd grazing patterns, and improves soil health through better grass management.

Product testing continues in Australia and New Zealand during 2018 and plans are for a 2019 roll out in North America.

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