

# He Drills Cover Crops While Combining

By Jim Ruen, Contributing Editor

Max Pitt gets seed-to-soil contact planting cover crops with drill units mounted on a 9600 Deere combine. The Graceland University agricultural professor is on his second-generation prototype. It has worked well enough to apply for a patent on what he calls his Drill Combine.

The goal is a cost effective method of planting cover crops. His concept is an alternative to broadcasting from a combine, or making a separate pass with a tractor and drill requiring time and fuel.

"I figured we could use the combine to carry drill components and get better seed-to-soil contact," explains Pitt. "I hoped we could get a better stand with less seed."

Last November Pitt drilled rye at 30 and 50 lbs. per acre rates using single coulters. "Five months later we had between 600,000 and 800,000 plants per acre," reports Pitt. "This fall we are testing 25 and 30-lb. rates of rye and also seeding about 6 acres to pennycress seed at about a 5 lbs. per acre rate."

Pitt's first Drill Combine used a Montag Mfg. seed tank and metering system. Its 30-cu. ft. tank was sufficient for about 50 acres drilling at this year's lower rye rates. The tank mounts on the front axle.

He had toolbars fabricated by local welder/fabricator Steve Rollins. He used 4-in. square, 1/4-in. steel tubing for a 15-ft. bar mounted to the rear axle. It carries 12 single disc coulters on 15-in. spacing.

Six-ft. toolbars were mounted to each end of the 30-ft. soybean header. They carry 6 coulters each.

"Steve used steel pipe for the front toolbars that rotate inside sleeves attached to the header," says Pitt. "This required a modified coulters mount, but it allowed me to raise and lower the drill units separate from the soybean header. This would be important if harvesting in wet conditions."

Each pair of coulters was fed by a 1 1/2-in. flexible tube carrying seed from the Montag unit. The coulters loosened the soil and mixed the seed with it.

"I used old Deere drill openers, because they were the lowest cost coulters I could find," says Pitt. "They created enough disruption in the soil that the seeds blowing in created seed-to-soil contact, with the residue spreader creating a degree of mulch over them."

On his latest Drill Combine prototype, Pitt went with double disc coulters from Sunco Farm Equipment. He expected and has seen a much-improved seedbed.

"I've been very pleased with how they work," he says. "You don't want to drill too deeply, but better on the soil than on top of a leaf or other residue, as with simple broadcast systems."



A 15-ft. toolbar with single disc coulters mounts on combine's rear axle, with 6-ft. toolbars mounted to each end of the 30-ft. soybean header.

Pitt stayed with the Montag system. He notes that Montag has a long history of precision metering and placement of fertilizer.

Another change made this year was to adapt the Drill Combine to corn harvest. Instead of a dual rear/front system, Pitt is using 18 coulters on the rear toolbar to match his 8-row harvest swath. He lengthened the toolbar by adding 3-ft. hinged wings to each end. He moved 2 sets of double disc coulters from the front toolbar to the back and added 2 more. This covers the 8 rows with one coulters to either side of them. With the 4 sets of coulters on the soybean header, he still covers its 30-ft. width.

Pitt notes that his experimental units would not have been possible without the support



A 30 cu. ft. Montag seed tank mounts above the header on the right side.

of the Iowa Dept. of Ag, Montag Equipment, and Sunco Farm Equipment.

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## Dairy Farm Moves To Once-A-Day Milking

"I've been trying new ideas to make a good living on our family farm for 30 years, and the latest one is milking our cows once a day rather than twice," says Minnesota dairyman Jason French. "People think it's a crazy concept, but it's working out just fine."

French made the dramatic decision for economic as well as personal reasons. "With twice a day milking and cattle care at 2 locations, my dad, 3 of our kids and 3 employees were working our tails off and barely making ends meet," French says. "Now we have more time on our hands and our physical and mental state is much better even though our cash flow is down."

Their operation gave up 200 acres of rented farmland, re-wrote their loans, and let 3 employees go while transitioning to the single milking plan.

French says there's still plenty to do on their farm, starting with daily milking at 6 in the morning and then moving cows onto a

fresh paddock of grass during grazing season. Their workday is generally done by 6 in the evening, allowing them plenty of time for other activities.

Jason and his family have been an organic dairy practicing rotational grazing for 30 years, so that part of their operation hasn't changed. Cattle are on pasture about 200 days a year and when they're not grazing they receive forage and hay, but no grain.

Milk production for their herd dropped about 25 percent with single-time milking, French says, almost the exact amount dairy experts had told him. "We've maintained the 5 percent butterfat and 3.8 percent protein levels for our herd, which is primarily a cross between Holstein and Jersey cows. Their cull rate went from 25 percent to less than 18 percent. They continue to raise their own replacement animals with newborn calves getting fresh milk until they're 5 months old, much like a beef cow/calf operation. About

2/3rds of their herd calves in April and the other 1/3rd in the fall.

"That approach has worked extremely well," French says. "Our cows and calves are very healthy and they look really good. We have a very low vet bill."

French says the idea for once-a-day milking came after he and four dairying friends visited a Wisconsin farm in 2017 that was using the concept. "It seemed like a radical idea, but the more I thought about it and penciled out the pros and cons, we made the switch." One herd changed over in late 2018 and the other in spring 2019, both timed to coincide with calving seasons. French says the transition went well and now he and his family are much happier with their dairying operation.

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## Patriotic Bale Net Wrap

A recent ad titled "Get your hay red, white, and wrapped" caught our eye. It shows a roll of net wrap that's colored red, white and blue to resemble the American flag.

The patriotic net wrap is sold by Blue Lake Plastics, LLC, Sauk Centre, Minn., and is available only for big round bales. Most of the roll is covered with red and white stripes, with the rest colored solid blue. The company was inspired by all the crazy things that have already happened in 2020.

"Farmers love the idea and have shown a lot of interest," says Chris Kerfeld.

The patriotic net wrap is available in rolls



Bale net wrap is colored red, white and blue to resemble the American flag.

measuring 48 in. by 9,840 ft. or 64 in. by 7,000 ft. Available in limited quantities. Call for prices.

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