

Add-On Conditioning Rollers “Crush” Stems To Cut Drying Time In Half

“This is the best method ever developed to condition hay,” says Circle C Equipment of Hermiston, Ore. The company has just unveiled its new “Crusher” conditioner rollers that completely crush plant stems, allowing moisture to evaporate quickly through cracks in the sides of the stems instead of leaking slowly through “kinks” which are made by most conditioners.

The new “Crusher” rollers are designed to replace rollers on most models of swathers and mower-conditioners. A unique air bag pressure system holds the rubber-coated steel rollers tightly together. As the crop feeds through the rollers, the stems are flattened completely, laid out like ribbons. Cracks in the sides release moisture over the full length of the stem.

Work started on the new rollers in 1995 and final prototypes went to the field in 1997. Production units were first released late last summer and the product has been generally introduced to the public this winter. During prototype testing the rollers have been used in 12 states on thousands of tons of forage under nearly all conditions, according to the company. After all the testing in side-by-side comparisons, the company concluded that under all conditions hay conditioned with Crusher rollers dries out faster than hay crimped by conventional conditioners. In some cases, it dries twice as fast.



Heavy duty rubber-coated steel rollers are held tightly together by an air bag pressure system.

The bottom roller is in a fixed position. The air bag system exerts tremendous down pressure on the top roller. Because of the much higher pressure exerted on the rollers, they are built many times stronger than standard rollers and are fitted with the highest quality bearings available, according to Circle C Equipment.

Air bags on the roller pressure system are simply pumped up to the desired pressure before you head to the field.

Crusher rollers are available to fit most all New Holland and Hesston/Case-IH swathers with wide conditioning rollers. The company is working on models to fit MacDon, John Deere, and other models.

Contact: FARM SHOW Followup, Circle C Equipment LLC, 333 East Feedville Rd., Hermiston, Ore 97838 (ph 800-367-1847 or 541-567-2992; fax 541-567-8520).



Ballard's bale hauler is equipped with a loading arm that picks up bales on-the-go. It's built out of an IH truck frame and combine cab and powered by a car engine.

Self-Propelled Round Bale Hauler Built From 2-Ton Truck Frame, Combine Cab

Commercial self-propelled bale haulers cost tens of thousands of dollars. Roy Ballard, Madison, Kan., built his own self-loading and unloading round bale hauler using a 2-ton truck frame, a car engine, and a combine cab.

“It's not as fancy as the commercial models but it does the job. My total cost, not including labor, was only about \$5,000,” says Ballard.

The rig is equipped with a loading arm that picks up bales on-the-go. It'll carry up to 10 round bales at a time at highway speeds.

He stripped the mid 1960's IH truck down to the frame and fitted it with a 283 cu. in. gas engine. He used 8-in. channel iron to build a frame for the engine and welded it to the front part of the truck frame. He kept the car's 3-speed automatic transmission and attached a transfer case to it. A hydraulic pump that's belt-driven off the engine crankshaft is used to operate the bale hauler.

The 23-ft. long deck is 9 ft. wide and has parallel pipes welded lengthwise onto the

frame. The operator approaches each bale so that its end fits into the open end of the loader arm. A pair of hydraulic cylinders swings the bale up onto the bed. A hinged pipe then kicks the bale over to the opposite side. A second bale is lifted onto the bed alongside the first one. A hydraulically-operated pusher plate then pushes both bales back 6 ft. on the bed. The process is repeated until the bed is loaded.

The pusher plate is returned automatically by a hydraulic motor.

To unload bales, the operator hydraulically tilts the bed until the back end touches the ground and then pushes the bales off as the truck moves ahead.

“When bales are unloaded they stay in a nice neat stack,” says Ballard. “A steel divider at the back of the deck keeps the two rows of bales about 1 ft. apart as they're unloaded. Normally the bales are unloaded tight against each other end to end. However, if I don't ride the brake as I go forward during



ReCon 200 hay conditioner is equipped with a pair of 12-in. dia. steel rollers on front and a pair of curved, 8-ft. long poly deflectors behind them.

High-Speed Hay Conditioner Also Works As An Inverter And “Fluffer”

“Our new ReCon 200 hay conditioner is bigger than most conventional conditioners and operates at higher speeds. It also serves as a fluffer and inverter,” says Gary McCrea, Ag Shield Mfg., Benito, Manitoba.

The 2-wheeled, 7-ft. wide reconitioner is equipped with a pair of 12-in. dia. steel rollers on front and a pair of curved, 8-ft. long poly deflectors behind them. The shields can be hydraulically shifted either to the left or right to set swaths onto dry ground. Or, with both shields positioned straight back you can fluff the swath and set it back onto the same ground. The rollers are chain-driven by a pot-driven hydraulic pump. The rig's hitch doubles as an oil reservoir.

“As far as we know it's the first conditioner that can also be used as an inverter or fluffer. It can even eliminate the need for a mower-conditioner because it runs more efficiently than other conditioners on the market. You can mow and then use our conditioner,” says McCrea. “The ability to both condition and invert the swath saves 1 to 3 days drying time on most crops. You can use it at speeds up to 13 or 14 mph compared to 5 to 7 mph for most conditioners and cover 20 to 40 acres per hour. The large crimper rollers allow the faster speeds. Most conditioners are equipped with small 5 or 6-in. dia. rollers which are more likely to plug up, especially at fast speeds. The big rollers on our conditioner run fast and pull the swaths apart without plug-



Deflectors can be hydraulically shifted to left or right to set swaths onto dry ground.

ging up. The rollers can be set to not crimp much - just fluff. They open automatically whenever the machine is raised, so if they ever do plug up you can usually solve the problem without ever leaving the tractor seat. “Growers who export their hay to Japan really like this machine because it lets them condition and fluff the hay aggressively and quickly dry it down to 10 to 12 percent moisture. They can spend one or two hours in the morning conditioning and fluffing and then bale hay in the afternoon. Another advantage is that the machine can be transported at highway speeds without the need for a trailer.”

Sells for less than \$9,000 plus S&H (U.S.).

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To unload bales, the operator hydraulically tilts the bed until the back end touches the ground and then pushes bales off as truck moves ahead.

unloading I can space the bales about 1 ft. apart.

“Because of the transfer case and 2-speed rear axle it has a lot of power in the field. I keep the transfer case in low so the engine doesn't have to work hard. However, it could use a little more power on the highway, especially when going up hills. I mounted dual glasspack mufflers on it to increase exhaust

flow and performance.

“I made linkages that connect the combine controls to hydraulic valves that mounts behind the cab so I can use the combine's original control levers for all operations.”

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