



Fantastic Demonstration Of Horse-Drawn Equipment

At the same time that tractors are getting more sophisticated and powerful, it's getting easier to use horses to pull nearly every type of modern farm equipment including mowers, balers, planters, drills, and even large rototillers.

Modern horsepower was put on display at the second annual Horse Progress Days held last summer, at the Floyd Bontrager farm near Middlebury, Ind. The *Draft Horse Journal*, which reported on the event, said it was "the most fantastic demonstration of modern horse and mule-drawn equipment ever". The event is sponsored by the Draft Horse and Mule Association.

Field demonstrations showed how horses and mules can be adapted to nearly any piece of modern machinery using a variety of ground-driven pto carts or by mounting engines directly on the towed equipment. Everything from ground-driven manure spreaders to engine-equipped mowers and pto-driven round balers were on display.

A similar demonstration of equipment will be held at this year's Horse Progress Days on July 5 and 6 at the 4-H fairgrounds in LaGrange, Ind. For more information call Floyd Bontrager (ph 219 642-3629), Bill Connelly (ph 219 463-3243 days) or George Miller (ph 812 988-8120 evenings).

Maschio Rototiller: An 80-in. wide Maschio rototiller on a four-wheeled, 3-pt. "forecart" equipped with a 120 hp motor. It did a great job of one-pass tillage, according to observers, and was probably the most talked-about implement at the show. A single team can handle it.

Deere 7000 4-row planter: Four Belgians were used to pull a Deere MaxEmerge planter, equipped with no-till coulters. It was demonstrated in both tilled soil and alfalfa sod, controlled by a 12-volt hydraulic system.

New Holland 489 haybine: Equipped with a 28 hp, 3-cyl. Kubota diesel engine, four Percherons were used to pull it. The haybine had a set of castor wheels attached to the end of the tongue and a seat for the driver mounted midway back on the tongue. It was also fitted with a 12-volt hydraulic system. "Easy to operate and did a good job of mowing," noted one observer.

Great Plains 10-ft. no-till grain drill: Pulled by a White Horse hydraulic forecart, four Belgians were used. The cart has foot pedals to control the hydraulics.

New Holland 630 round baler:



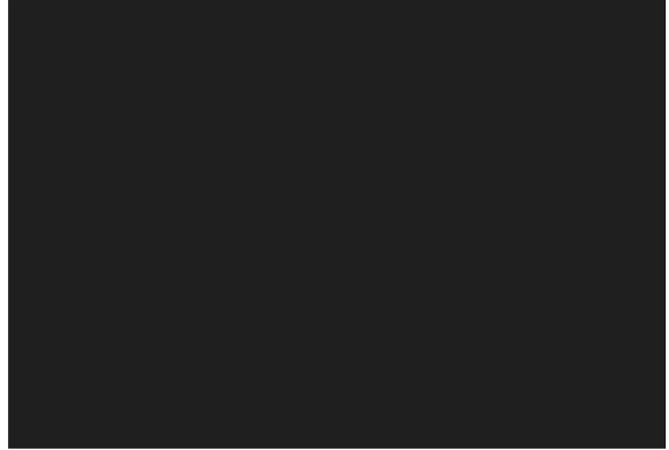
Hitched to a power forecart, four Belgians were used, but it could have been pulled by just three or even a single team on level ground.

New Holland 565 square baler: With factory-installed engine, four Haflingers were used to pull it behind a Pioneer forecart. The baler was easy to hitch and operate, according to observers. It makes nice tight square bales and had a curved bale chute to load the bales onto the bale wagon pulled alongside by a team of Percherons.

Forecarts are available from a number of manufacturers including Pioneer Equipment Inc., 16875 Jericho Rd., Dalton, Ohio 44618; White Horse Machine, RD 1, Gap, Penn. 17527; and Teamster Forecarts, 17645 Harbaugh Valley Rd., Sabillasville, Md. 21780 (ph 301 447-6865).

The *Draft Horse Journal* is a bimonthly publication that features state-of-the-art horsedrawn equipment. For a sample copy, send \$5.50 to: The *Draft Horse Journal*, 2700 Fifth Ave. N.W., Box 670, Waverly, Iowa 50677 (ph 319 352-4046).

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Morse's 15-in. header is a copy of a prototype header designed by Marion Calmer. Snout covers were made out of 10-in. pvc pipe cut lengthwise in half.

11-ROW HEADER HAS ONLY ONE GATHERING CHAIN PER ROW

He Built A 15-in. Row Corn Head

By Dennis Rudat, Michigan Farm News

If you've ever considered switching to narrow row corn you'll want to take a close look at this 15-in. row header built by Don Morse of Birch Run, Mich.

His 15-in., 11-row header is a copy of a prototype header designed by Alpha, Ill., farmer-researcher Marion Calmer. It has only one gathering chain per row and an ear guide on the opposing side.

Morse took two International 863 heads, stripped them down, picked out the best frame, and started rebuilding. Gear boxes had to be milled and the framework that the stripper plates and gathering chains run on had to be cut down with a plasma cutter.

Snout covers were made out of 10-in. pvc pipe cut lengthwise in half. The snouts are the tips from the original header. Morse says the total weight of the 11-row header is close to the weight of a typical 8-row unit. He estimates he has about \$250 per row invested in machine work and rebuilding the corn head. Making an allowance for a trade-in of a Deere 6-row head on the two 6-row International heads, Morse estimates that he's got an additional \$4,500 invested in the narrow row head.

"On the flip side, however, I estimate that I grossed an extra \$10,000 the first year on corn due to increased yields," says Morse. "My narrow row program has already paid for itself."

According to Morse, Case-IH and Deere are both looking at Calmer's 15-in. cornhead design. Once the narrow head becomes commonplace, Morse says he expects that farmers will quickly convert to 15-in. rows.

Planting soybeans in narrow rows using a no-till planter originally got him started thinking about narrow rows, Morse says. The appeal of increasing corn yields with little additional cost, except for seed, made him look at putting corn in narrow rows, too. "I finally came to the conclusion that if we could increase yields at no real extra cost, it just seemed like a natural thing to do," he says.

Morse traded a 2-year-old, 12-row front fold planter in on a factory-built, semi-mounted Case-IH 800 toolbar planter. The planter had factory-built splitter units that can be hinged up or down to plant 30 or 15-



Header has only one gathering chain per row and an ear guide on the opposing side.

in. rows. For peace of mind, as Morse puts it, he leaves the units behind the tractor tire up, making tramlines that allow for herbicide application if needed, and for sidedressing 28% nitrogen.

Although coulters penetration wasn't a problem in narrow row no-till, trash flow was, says Morse. To get around residue flow problems, he extended the staggered splitter units from just 6 in. to 20 in. He set his population at 30,000 but is considering bumping it to 33,000 to 34,000. He broadcasts all of his fertilizer and puts all of his nitrogen down in the form of 28% with herbicide. This year, however, he plans to reduce the amount of 28% that he puts on with the herbicide, and then nitrate test at sidedress time and coulters inject what's needed based on test results. "I think I'd realize a dollar savings and not look at any yield loss," says Morse.

He also speculates that 15-in. rows provide an ideal environment in soybeans to reduce the incidence of white mold. "Fifteen-inch rows are supposed to be the threshold for optimum soybean yields, and you're also affording yourself some air flow, compared to drilled beans," he says.