



Pto-powered prototype "fluffer" is belt-driven.

Photos courtesy Nebraska Farmer

DOUBLES SIZE OF MATTED-DOWN WINDROWS

Windrow "Fluffer" Speeds Hay Drying

By Don McCabe

Do you cringe every time you rake an alfalfa windrow, watching the stems tangle and the leaves fall to the ground?

Arnold Nilsen, a farmer near Hazard, Neb., thinks he's come up with a solution to that knotty problem. Nilsen, with the help of neighbors Dan Johnson and Jeff Shafer, designed what they call a "hay fluffer." Their prototype model is officially called the NJS Fluffer, with the initials standing for Nilsen, Johnson and Shafer.

The name is appropriate because the simply designed, 8-foot-wide fluffer picks up a wet and matted alfalfa or small grain windrow and gently lays it back down in the same place behind the rig. The resulting "new" windrow is fluffed to nearly double the height of the old one, allowing for much faster drying time, according to Nilsen.

And since the windrow is not turned with a rake after the initial windrowing, according to Nilsen, there is no tightening or rolling of the hay and little loss of leaves. And when the windrow isn't turned, hay quality is maintained, he adds.

The component parts are few. There is a 6-ft. wide pickup head from an old Gehl chopper, and a 14-in. diameter rotating drum behind the head to carry and deposit the hay on the ground. A 5-in. diameter roller above and a little forward of the drum helps to keep hay moving and prevents it from bunching up over the drum. Since the roller is about 8 in. from the drum, according to Nilsen, there is enough room between the two to prevent squeezing.

The fluffer weighs 1,520 lbs. and is 8 ft. wide from wheel to wheel.

The fluffing action begins as the hay is picked up from the ground. Then, Nilsen says, the rotating drum fluffs the hay even further and lays it "almost on end on the stubble."

That fluffing action, he claims, allows the windrow to be aerated and dried evenly from top to bottom.

Under ideal drying conditions,

when the hay in a windrow is already in pretty good shape, Nilsen says, you may not need the fluffing action. Nevertheless, he believes the fluffer does at least speed drying in this situation. "You can windrow the alfalfa, wait 12 hours, fluff the windrow and then bale."

During Nilsen's third cutting of alfalfa last year, he cut and windrowed one evening and then, at mid-morning the next day, used the fluffer on two-thirds of the field. The fluffed portion of the field, according to Nilsen, dried to the point that they were able to bale that same afternoon. The rest of the field could not be baled until the following evening, he adds.

It really shines under wet conditions, Nilsen claims.

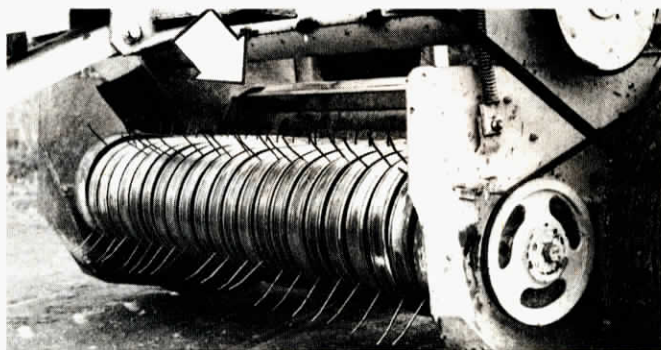
As an example, this spring during first cutting, Nilsen's alfalfa lay wet and matted in the windrow, with the new alfalfa coming up through it. Eventually, he and son, Tony, got into the field with the fluffer, fluffed the windrows one morning and baled that afternoon. Under these less than ideal conditions, Nilsen figures, the fluffer can save perhaps 2 days in haying time.

"If a guy is going to pay \$30,000 to \$40,000 for a windrower, there's no sense in knocking the hay all around," says Nilsen, referring to the two or more times some hay is turned over.

In all this year, Nilsen and several neighbors used the fluffer on more than 250 acres of alfalfa without any problems.

Nilsen says he's had a hard time convincing others that the windrow does not have to be rolled and moved to the side of the old windrow location to allow for faster drying. "The fluffing action allows drying in the same spot just as fast," he claims.

The rig does not require a large horsepower tractor. "We've used a 3010 model John Deere," Nilsen says, "but we think it will require no more than 20 horsepower to operate it. You can use any small tractor with a wide



A 6-ft. wide Gehl chopper pickup picks hay off field. Arrow points to drum, shown in photo below.



Rotating 14-in. dia. drum deposits hay on ground. Small 5-in. roller above stops bunching.

front end."

He recommends a ground speed of about 6 mph. "If the hay is really matted down, you may have to go a little slower."

The prototype is pto-driven, requiring a gearbox and set of belts on the rig. Nilsen and his co-designers hope to have both a pto-driven rig and a hydraulically operated rig when they begin marketing.

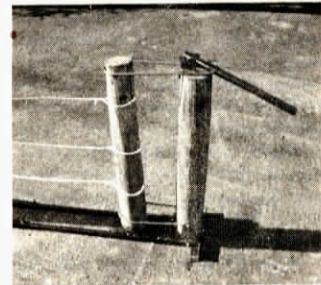
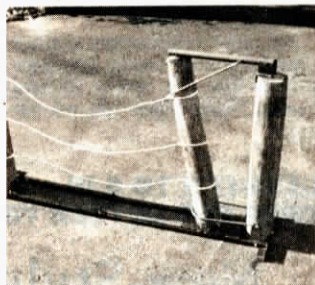
Their goal is to have the rig refined and ready for marketing next year. However, as of early September, they

were still working out contract details with a central Nebraska manufacturer.

The three neighbors spent about 60 days and \$2,000 (parts and labor) to build the prototype. However, they have not determined a final cost figure for the fluffer.

For more information, contact: FARM SHOW Followup, Arnold Nilsen, Hazard, Neb. 68844 (ph 308 452-3002).

(Reprinted from the Nebraska Farmer Magazine.)



Latch loop fits over top of gate post, left, and easily pulls up tight, right.

Handy Latch For Wire Farm Gates

"Even youngsters can open and close wire gates with this latch," says Jim Jesmer, inventor-manufacturer of one of the simplest gate closers we've seen.

You simply set the gate post in the bottom ring, slip the top handle and ring over the top of the post, then pull down on the handle. When it moves over center, it automatically locks in place. Works on any wire gate, re-

gardless of length, says Jesmer.

Sells for \$13.50, including the top ring and handle, and the bottom ring, plus \$2 for shipping and handling. Dealer inquiries welcome.

For more information, contact: FARM SHOW Followup: A. J. International, Jim Jesmer, President, 2425 County Trunk Highway B, LaCrosse, Wis. 54601 (ph 608 784-4615).