

LEAVES HAY LAYING IN WIDE, FAST-DRYING SWATH

Farmer-Built Windrower Speeds Hay Drying

By **Harold Johnson**
Editorial Director

Oregon farmer Stan Steffen, of Silverton, has developed a "windrowless" windrower that appears to have shattered all records under the sun for high-speed haymaking.

Steffen designed and built a 4-wheel drive, self-propelled power unit which he equipped with three 7 ft. wide New Holland model 472 Haybines (one mounted on each side and one up front).

It's a "windrowless" windrower in that it doesn't bring the 21 ft. wide cut on each pass into a single windrow. Instead, the 7 ft. wide swath of freshly mowed and conditioned hay behind each of the three Haybine units is left intact and undisturbed.

"If the 21 ft. wide swath was bunched together into a single windrow, it would take 5 to 7 days for the windrow to dry down and be ready for baling. That's normal field drying time in this area because of our high humidity," Steffen points out. "Leaving the hay in wide, undisturbed swaths cuts field drying time by almost two thirds. Usually we're able to mow-condition one day, then go back the very next day to rake or ted the hay and start baling," Steffen told FARM SHOW. To further speed drying time, he applies a drying chemical, called Pro-Cure, which dissolves wax on the plant stems.

In irrigated alfalfa, he feels his "Steffen System" can mean an extra cutting or two per year. Normally, there's a five to seven day period between mowing and getting the hay baled and off the field. By cutting this time in half or more, a farmer can have his irrigation system running within two or three days after mowing to give the next crop a significant head start which, over the year, can mean an extra cutting or two, Steffen points out.

He bought the three 7 ft. wide Haybines without gearboxes, then equipped each of them with hydraulic drive motors. All three Haybines can be operated simultaneously, or individually. If a unit plugs, the operator can "unplug" it simply by running its hydraulic drive motor in reverse.

"I started out with plans to hang the three Haybines on a tractor. That didn't work out so I designed and built a self-propelled power unit from scratch," says Steffen. The prototype features air suspension (up to 6 in. of vertical movement on air to ensure a smooth ride at any and all field speeds); adjustable wheel tread (72 to 102 in. in 6 in. increments); a 110 hp Chevrolet V-8 gas engine, and 12.4 by 24 in. tires. "It can easily be equipped with duals, or with wider flotation tires, if desired," notes Steffen.

Travel speed is infinitely variable from 0 to 18 mph. For road travel, the side units fold up hydraulically to a narrow (9 ft.) transport width. Operating field speed is 5 to 7 mph.

The 7 ft. wide swaths laid down by the three Haybine mower-conditioners are left intact and undisturbed to speed drying. When dry and ready for baling, one, two or three swaths — depending on how heavy the crop — are raked together into a single windrow.



Steffen says the power unit can be used for jobs other than haying. "It makes a great field sprayer for broadcast or row crops. We're also working on ways to mount planting and drilling equipment on it for both row crops and small grains. We also have developed a basket-type rake which will rake three, two or one 7 ft. swaths into a windrow, depending on how heavy the crop is."

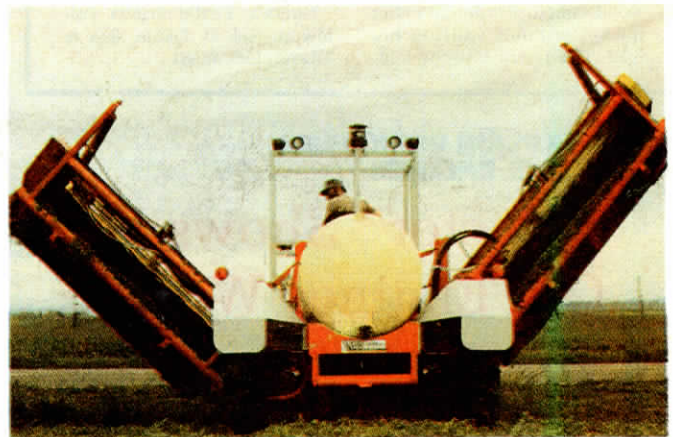
Steffen, who lives near Silverton, extends a personal invitation to interested FARM SHOW readers to come and see his first-of-its-kind windrower in operation. He plans to manufacture it on a custom basis for interested customers. By selling direct, with no dealers, distributors or other middlemen, he hopes to be able to offer a 21-ft. wide rig, complete with three new 7-ft. wide Haybines and the self-propelled power unit equipped with a new 120 hp diesel engine, for right at \$55,000. "That's about what you'd have to pay nowadays for a new conventional self-propelled windrower of comparable width. And, we think ours is in a class by itself because of its ability to make hay in half the time," Steffen points out.

While you're visiting his farm he'll also show you the revolutionary Big Baler he's developed. First featured in FARM SHOW seven years ago (Vol. 2, No. 3, 1978), it makes square flat bales — measuring 8 ft. wide, 8 ft. long and 15½ in. high — at the rate of one per minute. Individual bales weigh right at 1,000 lbs. and are tied "on the go" with 10 wires.

For more information, contact: FARM SHOW Followup, Steffen Systems Inc.; Stan Steffen, president; 4432 Howell Prairie Rd. N.E.; Silverton, Ore. 97381 (ph 503 873-6882).



Spray attachments mounted on the front of each Haybine unit apply Pro-Cure, which dissolves wax on plant stems to speed drying.



With wings folded, the self-propelled rig narrows to 9 ft. for transport.

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