Big nylon brush, rotating at 1,000 rpm, creates an upward air flow.

USES SUCTION AND BRUSHES

Loader-Mounted Combine Harvests Native Grasses

An Oklahoma rancher, fed up with the price for native grass seed, has invented his own grass seed harvester that uses suction and brushes to gather the tiny seeds.

Aaron Beisel, of Fargo, Okl., says he likes pasturing his cattle on native grasses but that at prices of up to $20 a pound for seed, he had trouble justifying the cost.

His harvester is a big rotating nylon brush mounted on his front end loader. At 1,000 rpm, the brush creates an upward air flow. That suction, combined with the gentle flailing action of the bristles, removes ripe seed from the plants and blows them into a triangular bin behind the brush.

"I wanted something different because grass seed doesn't scoop or auger very well. This does a good job of harvesting and, in my opinion, the seed is cleaner than from a combine or stripper," he says. "Wild grasses ripen unevenly, and only a third will be ripe at any given time. We try to pick the optimum day and make one trip over the field."

Beisel notes that while a crop like Old World bluestem may produce 300 lb. of seed per acre, the going average is generally less than 50 lbs. He says his harvester will harvest at least half of the crop.

He has made two prototypes with 7 and 9-ft. heads and expects production units to have a price tag of $4,000 to $5,000.

For more information, contact: FARM SHOW Followup, Aaron's Engineering, Rt. 1, Fargo, Okla. 73840 (ph 405 698-2613).

The crib is 100 ft. long and 5½ ft. wide.

SOLVES UNLOADING PROBLEMS

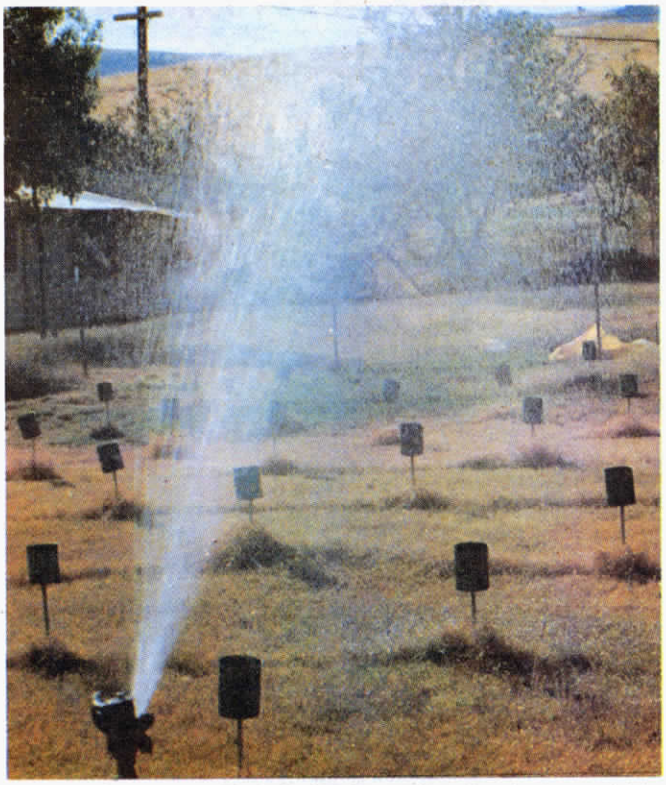
"Pyramid" Corn Crib

When Bert Knott decided to go back to ear corn after paying to have his grain dried for some 20 years, he wanted a storage crib that would minimize the labor involved and make handling easy. His "pyramid" style crib does just that.

"Everything is downhill in this crib," says Knott. "You can put an elevator under each of the lowest points and unload the entire crib with nothing more than a garden rake."

The 100 ft. long bin is 5½ ft. wide mounted on 20-ft. long, 10 in. dia. poles anchored 3½ ft. in the ground. Knott says the crib will hold about 1,500 bu. of ear corn. There are no divider walls between sections of the bin and Knott, along with his son Tony, simply unloads one section at a time. This is the second year they have used the bin. Corn they unloaded last spring at 13.5% had been loaded into the crib at near 30% moisture last fall. There were no spoilage or other quality problems, says Bert.

For more details, contact: FARM SHOW Followup, Bert Knott, Rt. 2, St. Pauls, Ont. Canada NOK 1VO (ph 519 393-6368).



New-style nozzle is available for handset, side roll and other sprinkler systems.

OPERATE ON 25 TO 35 LBS. PRESSURE

Low Pressure Nozzles Save Energy, Water

A new low pressure nozzle promises substantial energy and water savings for irrigation farmers. Richard Malcolm, Sanger, Calif., inventor of the new-style nozzle, which operates on only 25 to 35 lbs. pressure, says water distributed by the nozzle generally covers within one to two feet of the spread of the high pressure nozzles they replace.

Malcolm's MG nozzle is available for handset, side roll and other sprinkler systems except center pivots. Some pivot makers and dealers, however, are experimenting with the new nozzle and results to date look promising, according to Malcolm.

The nozzle is made of a brass housing with a stainless steel insert in the center. The insert provides long wear and the specially shaped hole breaks up the stream of water mechanically instead of relying on high pressure as the industry has done for many years.

To permit operation of the same flow rate, the MG nozzle orifices are about twice as large as outlets in the standard high pressure nozzles. This has meant the reduction in nozzle plugging of 50 to 200%, and may cut irrigation labor by 25%, according to Malcolm.

He notes that, because water is not broken up as finely at low pressure, evaporation levels are much less, compared with high pressure operation. He suggests that during the hottest, driest parts of the summer, a sprinkler system converted to low pressure might deliver just as much water to the soil if it were shut off from noon to 6:00 p.m., compared to continuous operation of a high pressure system with its attendant high evaporation losses.

Malcolm cites several cases where installation of his low pressure nozzle resulted in significant savings in annual energy costs. He estimates that in California's San Joaquin Valley, it cost $1 per lb. of pressure per acre to apply irrigation water. Dropping pressure from 60 to 30 psi results in a savings about $30 per acre. But, savings in some instances have gone much higher. For instance, on 2,167 acres of wine grapes in Fresno County, Calif., switching from high pressure to low pressure costs $64,057 and provided annual energy savings of $117,677 — about $54 per acre.

MG nozzles are being made and sold in California by MG Industries, 7108 St. Andrews, Bakersfield, Calif. 93309 (ph 805 397-8979). Distribution outside of California is being handled by Transconn Inc., John R. Beatty, manager, 2104 Stonecrest Drive, Ft. Collins, Colo. 80524 (ph 303 224-3377).