



The Agropack mini-roll machine has a throughput capacity of about 6 to 8 tons per hour. Mini-rolls it makes are 5 to 7 in. in dia., and 4 to 7 in. long.



## NOT A BALER OR CUBER

# New Way to Make Hay

About 50 new Agropack machines that roll long hay into mini rolls are slated for commercial production this year, according to Joseph Molitorisz, inventor and developer of this new way to make hay.

"The Agropack is neither a baler nor a cuber," he points out. "It's a combination of other hay packaging methods. It works with long-hay (like baling) but makes small and high-density rolls without wire or twine (like cubing). It tolerates a much wider moisture range than baling or cubing, and a wider variety of crops. You can form compact rolls from practically all types of hay at 20 to 70% moisture," according to Molitorisz.

He notes that the rolling-pressing concept is based on the natural ten-

dency of most forage crops to wrap tightly around rotating shafts. Mini-rolls produced by the Agropack machine are cylindrical, ranging from 5 to 7 in. in dia. and 4 to 7 in. in length. Density of the rolls can be set between 20 and 50 lbs. per cu. ft., depending on condition of the crop. Optimum density is between 35 and 45 lbs. Stems of hay rolled into mini rolls remain long. "The interlocking and overlapping of the stems, together with the natural adhesives they contain, provide durability for the mini rolls, making them adaptable to mechanized bulk handling, such as dumping or conveying," Molitorisz points out.

He feels his new method of making hay has been perfected and is "ready

to roll" on irrigated land in lower humidity areas. "Because hay doesn't have to be cured as long in the field, it can be processed with the Agropack 24 hours after it's cut," says Molitorisz.

In the Midwest, higher humidity has caused problems in being able to preserve the processed mini rolls. "We're evaluating the use of chemical preservatives and trying several other promising alternatives," he explains. "I'm confident that, when all the research results are in, we'll be able to market the Agropack in areas now restricted because of high humidity."

In dryer climates, mini rolls can be stored in piles, in corn-crib like structures, or sheds. Although a wide var-

ety of hay can be processed, the Agropack isn't being recommended for cornstalks or straw.

Feeding tests have shown good animal acceptance of the mini rolls. The wrapped layers are easily unrolled by cattle, horses or sheep, says Molitorisz.

He notes that hay is generally ready to process when you can twist it into a rope, and then be able to bend the rope several times without breaking the stems. It's recommended that the hay be crimped or conditioned as it's cut and windrowed.

Current factory price of the Agropack machine is \$12,500. For more details, contact: FARM SHOW Followup, Agropack, Box 129, Bedina, WA 98039. (ph. 206 455-1823).

## REGARDLESS OF TERRAIN OR TRACTION

# Farmstar Gun Travels at Constant Speed

"It's the first and only traveling gun, so far as we know, that travels at a constant speed regardless of the terrain," says Greg Grahn, president of Brooten Mfg., manufacturer of the new Farmstar traveling gun.

It's driven by cable and cable buildup on the drum controls the drive ratio for constant ground travel speed. A sensor arm constantly "reads" diameter of the cable takeup drum. As diameter of the drum increases as more cable is wrapped around it, the sensor automatically adjusts size of the drive pulley accordingly, providing a constant travel speed on hilly terrain, or in rugged terrain, such as wet or plowed fields.

The Farmstar travels 1 to 5 ft. per min. It'll cover 8 to 10 acres in a pass and operates efficiently on lower

pressure since none of the water pressure is used to power the unit. "There is no slowdown in travel as the gun reaches the end of the run and is dragging up to an eighth-mile of hose behind it," Grahn points out.

He notes that the automatic speed control regulator can be over-ridden to increase or decrease the rate of travel. The unit is equipped with a Nelson gun which handles liquid manure without having to be modified. Power is provided by a one cylinder, 8 hp, air-cooled Deutz diesel engine which runs all day on a gallon of fuel, says Grahn.

Cost of the unit, including 66 ft. of 4.5 in. dia. Goodyear hose and 1,350 ft. of 5/16 in. steel cable, is \$12,800.

For more details, contact: FARM SHOW Followup, Brooten Mfg., Brooten, Minn. 56316 (ph. 612 346-2201).



Cable buildup on a drum controls the drive ratio to provide constant ground travel speed.