

GUARANTEED "100% HAIL FREE COVERAGE" OVER 180 ACRES

World's First Hail Prevention Device

Hail in the French Alps is as common as flies around a manure pile, so it's not surprising that what's billed as "the world's first sure-fire cure for hail damage" should come from there. Farmers who have had to accept a certain amount of hail damage nearly every year are excited about the prospect of damage-free crops.

"They've tried everything from anti-hail rockets to cloud seeding to putting nets over crops. But this is the first and only method that really works. We've proved that in 12 years of testing," Fred Ollivier, of Marseille, France, inventor of the new hail-stopper, told FARM SHOW. He guarantees 100% hail-free coverage over 180 acres in a circle 1 kilometer (.6 of a mile) across.

The new device sends shock waves created by acetylene gas explosions into hail-producing thunderheads. Even in heavy wind and rain, Ollivier and the farmers who've tested the system for years, say nothing more than soggy flakes ever falls in the protected area.

"It's like creating a wave on a freezing pond. Because of the agita-

tion, ice won't form until a much lower temperature is reached," explains Ollivier, adding that the system has to be started at least 20 to 30 min. before the hail clouds themselves appear. That's to let the shock wave pattern build and expand as the system sets off eight wave-producing explosions per minute. "It's like dropping a rock into a pond. If you keep dropping rocks into the same spot the ripples will grow and expand into waves that reach farther and farther from the point of origin."

Here's how it works:

The exploder consists of two parts: A 4½ ft. high cylindrical-shaped explosion chamber, and a 15 ft. mixing cone above it that emits the sound wave. Gas is injected into the base chamber and ignited electronically, blasting out all the air in the upper cone. The entire exploder is anchored to a cement slab.

Gas flow and ignition is controlled by a small computer set-up that's powered either by standard on-line electric power, or by a solar-charged 12-V battery.

"The unit can be turned on with a

remote transmission from up to 3 miles away. When you see a possible hail storm developing, you simply turn the system on until the danger is past. We also have an automatic switch-on system that turns on the device whenever it rains, but that can be wasteful since most rains are not hail carriers," says Ollivier.

The entire system is housed in a small building to protect the electronics, with the firing cone sticking out the top.

Ollivier notes that some neighbors of operating units claim the device changes rainfall patterns or sends hail to neighboring areas, but he feels there's no evidence that the system does anything other than force hail to fall as water. Noise is a problem, particularly for farmers located near town. One farmer says it's "about as loud as a motorcycle from 1,000 ft. away." The explosions have been measured at 92 decibels.

The device causes no damage to animals, and airplanes have intentionally flown through the shock waves with no noticeable bad effects. Ollivier says he can provide a number



Acetylene gas explosions are projected toward hail-producing clouds by a 15 ft. cone. Solar cells at left charge the batteries.

of signed testimonials from satisfied farmer-customers of his new anti-hail device, plus a list of 30 to 40 users whom anyone interested can contact directly.

The system sells in France for about \$27,000, not including the building.

For more information, contact: FARM SHOW Followup, Fred Ollivier, Ste. Corballan, S.A., 5 Place de Rome, Marseille, 13006 France.

SPRING-LOADED, THEY FOLD OUT BY HAND

"Mud Wheels" Fold Out When You Need 'Em

You've never seen anything like these fold-out mud wheels for tractors that fold out quickly in the field when needed, then fold back out of the way when you get back to dry ground.

Giorgio Cantone, of Cantone Industria in Vercelli, Italy, the manufacturer, says the company makes the wheels for any size tractor drive wheel. He says the wheels bolt quickly to the tractor rims and can be left on or removed when the muddy seasons are past.

"When you need them, they quickly flip out by hand over the tires. The gripper plates are spring-loaded and flip back out of the way just as easily in seconds," explains Cantone.

The heavy steel plates are about 5 in. high. Depending on the diameter of the wheel, there are from 10 to 16 plates per wheel.

Cantone notes that it's necessary to have enough clearance for the wheels between the top of tires and the cab. A pair of two mud wheels sells for about \$1,000. Although they are not available through a distributor in the U.S., Cantone does provide other equipment to American manufacturers — including International Harvester —



Mud-handling cleats fold "in" and "out" in just seconds.

who may be able to order them.

For more information, contact: FARM SHOW Followup, Giorgio Cantone, Cantone Industria Macchine Agricole, Corso Prestinari, 219, 13100 Vercelli, Italy (ph 0161 391311).

WILL ALSO SLICE SILAGE

Power "Knife" Slices Big Round Bales

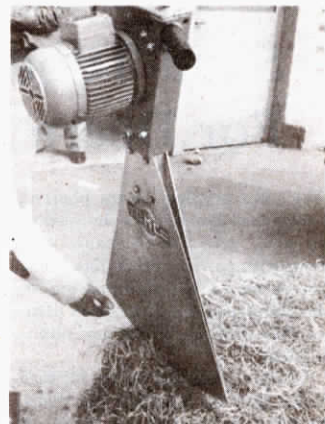
Some people use chain saws, some use hand saws but an Italian manufacturer has come up with a cutter designed specifically to cut chunks of silage.

"Big bales are gaining wider and wider acceptance in Europe. This machine makes them much more versatile to use in the barn," says Giorgio Cantarella, sales representative for Officina Meccanica Cattini in Correggio, Italy.

The "Tagliafieno," as the Italians call it, features two broad, pie-shaped cutting blades that could have been sliced out of a large circular cutting blade. Powered by a ½ hp. electric motor, the blades slice back and forth against each other and, with the 39 lbs. weight of the machine behind them, slice right through big bales from any angle.

"This machine is safe. It only operates when a button on the handle is depressed. The instant the thumb is lifted, the machine shuts down. Also, it's built in such a way that it does not vibrate the operator, causing him to be unstable. And it makes very little noise," Cantarella told FARM SHOW.

The machine is available in 220-V



The Tagliafieno cuts a 20 in. wide slice. Blades come apart for easy sharpening.

or 110-V models. A 15-ft. high stand with a counterweight, attached to both a cable and to the Tagliafieno to make handling easier, is also available. The hay cutter sells for about \$700.

For more information, contact: FARM SHOW Followup, OMC, Via XXV Aprile, Correggio, Reggio Emilia, Italy (ph 0522 69 21 95).