Best Ideas

Got a "best idea" you'd like to share with FARM SHOW readers — a new wrinkle in cropping, livestock, machinery or whatever? Maybe it's still experimental but looks promising. Or, maybe you've already taken the idea beyond the experimental stage. We'd like to hear about it. Write to: Best Ideas, c/o FARM SHOW, 8500 210 St., Lakeville, Minn. 55044.

Harold M. Johnson, Editor

Seeding by Helicopter Costs Only $5 Per Acre

Want to seed down a winter cover crop before the corn is harvested? You can do it with a helicopter.

On steep, erodible slopes of the middle Atlantic states, it's essential that crop fields have vegetative cover over the winter. But it's usually too late to plant small grain after the corn crop is taken off in October. Instead, aerial seeding is done in August while the corn is still growing.

"We find that August 15-30 is the best time for seeding a cover crop," says Karl Hellerick, soil conservationist in Lebanon County, Pennsylvania. "At that time we have surface moisture to germinate the seed, and the corn provides some shade but lets through enough sunlight to get the cover crop started. By the time the corn is taken off, the grain is usually 6-8 inches high."

Aerial seeding in that area is done by Ag-Rotors of Gettysburg, Pennsylvania, a helicopter service that does agricultural and other kinds of work.

Carrol Voss of Ag-Rotors explains that the seeding is done with either a sling bucket or a grain hopper mounted on the helicopter. An aircraft usually works with two buckets, one spreading from the air while the other is on the ground being filled. When the mounted hopper is used, the helicopter hovers while the empty hopper is filled.

A sling bucket holds 400-600 pounds of grain. That is dispersed with a fan driven by a small gasoline engine mounted inside the bucket or by the hydraulic system of the helicopter. A sling bucket will spread a swath about 75 feet wide. A mounted grain hopper spreads a 50-foot width.

"The cost of seeding to the farmer is from $5-10 per acre," says Voss. "The pilots work by the hour, and the cost depends on how efficiently they can work. The customer has to be well organized with his grain trucks so no time is wasted waiting for an empty bucket to be filled. With everything going right, a pilot can seed 50 acres per hour."

The sling buckets for grain are made specifically for the helicopter trade. They cost about $6,000 and are not an item that the average farmer would have. "Although," says Voss, "we have farmers that have bought a helicopter and accessories to go into the custom seeding and spraying business."

Ag-Rotors gives a full line of helicopter service, and they are one of only a few offering aerial seeding. They also offer helicopter training to farmers who want to do aerial custom work.

For more information, contact: FARM SHOW Followup, Ag-Rotors, R.D. 1, Box 578, Gettysburg PA 17325 (ph 717 334-6777).

Get Rid of Animal Odors with an Air Scrubber

Agricultural engineers at Oregon State University have designed and tested an air scrubbing system to control odors in confined livestock operations.

Developed by J. R. Miner and L. A. Licht, the system works best in hog and poultry buildings, and can be adapted to existing ventilation systems.

"The concept of washing odors out of the air is common in industries such as paper, petroleum, steel and rendering, but is new to livestock production," says Miner.

The system consists of an air fan, water reservoir and pump, and packing material. Water will trap dust particles down to ½ micron (a micron is one-millionth of a meter), and a large percentage of odors are carried on dust particles. Cotton cloth packing material will absorb many odors.

The water reservoir must be mounted in a location where it will not freeze and where it can be emptied frequently. The water becomes highly saturated with nitrates and ammonia, so it should empty into a septic system. Miner and Licht used a 2,000 c.f.m. fan with a speed of 3300 r.p.m.

The air scrubber system was tested by measuring the weight and size of trapped materials, the chemical change in the water, and the detection of odors by a panel of human "sniffers". All tests indicated very significant reduction in odors.

The agricultural engineers say the air scrubber could be installed by farmers using available materials, or be manufactured commercially. They have estimated the cost of adding the scrubber to an existing fan system to be about $100.

For more details, contact: FARM SHOW Followup, J. Ronald Miner, Agricultural Engineering Dept., Oregon State University, Corvallis OR 97331 (ph 503 754-2041).