

BIRDS CAN'T STAND SIGHT OF ITS REFLECTIVE SURFACE

'Eyeball' Scarecrow Gives Pest Birds The Evil Eye

A Japanese researcher, who discovered that an eyeball-like design of concentric circles scares birds, has developed a modern scarecrow that's shaped like a beach ball but is covered with a reflective optic eye. The manufacturer has sold more than 70,000 balloon scarecrows since they went on the market in Japan last year.

The eyeball design on the scarecrow is made of a reflective plastic material of the kind often found on children's toys or dolls. When you tilt it back and forth, the eye appears to move. The scarecrow is designed to swing freely on a rope or wire and, as it does, the moving eyeball frightens nearby birds.

The inventor, Yasushi Umehara, was working at the Tokyo Metropolitan Agricultural Experiment Station when he discovered that certain designs on the wings of butterflies and moths frightened birds. After several years of experimenting with various scarecrow designs he finally settled on the "optic" eye and located a manufacturer, Wonder Trading Co., Tokyo.

The scarecrow comes in 16, 24 and 32-in. dia. models all made out of vinyl. As the lens reflects light, the eyes on the ball appear to be rolling, prompting birds to take flight.

The balloon-like scarecrows can be used around farm buildings, orchards, gardens, livestock, and in fields. Each ball controls an area from 60 to 150 ft. radius around it, depending on its size. The new scarecrow is being used primarily on farms



Reflective eyes appear to move when scarecrow moves.

in Japan but is also in use around public buildings, railway stations, religious shrines, and airports. The ball can be hung from the end of a pole set up in the field. Some farmers string wires over crops and space the balls out over them.

Optic scarecrows range in price from \$14 for the smallest 16-in. dia. model to \$37 for the largest 32-in. dia. model. The company is looking for distributors in the U.S. and Canada.

For more information, contact: FARM SHOW Followup, M. Marusaki, Manager, Wonder Trading Co., Ltd., No. 35-5, 5-Chome, Koishikawa, Bunkyo-Ku, Tokyo 112, Japan (ph 03 814-2056).



"Pusher chute" self-loads bales from baler onto tag-along trailer.

"CHUTE" MAKES IT EASY TO LOAD, TOO

Self-Unload Bale Wagon

"It costs thousands less than other bale stacking and handling systems yet gets the job done just as fast," says Weaver Zimmerman, a Pennsylvania farmer and manufacturer who builds a self-unload bale hauling trailer.

It features a hydraulically lowered rear axle that drops the back end of the trailer to the ground. A cable winch then pulls the entire load of bales off the back at once. The 16-ft. long trailer has a capacity of about 250 bales.

The trailer, fitted with a tandem rear axle, has a hydraulic cylinder on either side. The winch-operated pusher plate that unloads the bales is run by a hydraulic motor. Cable is threaded through pulleys beneath the bale trailer.

Zimmerman also builds a bale "pusher chute" that self-loads bales from the baler to the bale trailer.

The 8-ft. wide trailer, which raises and lowers 15 in., sells for around



Self-unloading wagon drops to ground for unloading.

\$5,000. Zimmerman custom-builds to specifications. He notes that the trailer can also be used to haul livestock by adding sides. He also builds livestock-only trailers that raise as high as 54 in. for loading into trucks.

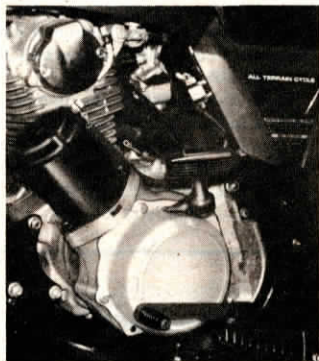
For more information, contact: FARM SHOW Followup, Weaver Zimmerman, Rt. 2, Box 56, Ephrata, Penn. 17522 (ph 717 354-8147).

ATV Electric-Start Kit

You can add electric start to your ATV, thanks to a new kit developed by a California manufacturer that requires a minimum of modification. It uses the stock recoil starter already on the machine and you can still start the rig manually once the kit's installed.

Al Goodson of GOKI Manufacturing, Chatsworth, Calif., says the kit installs easily. "It comes with a built-in charging system so that the battery stays fully charged. Power for the charging system is supplied by the stock lighting circuit," he explains. The starter kit doesn't generate additional power for running lights or added accessories.

The electric start kit comes complete with all mounting adaptors, cranking motor, battery box (battery not included), mounting hardware, wiring harness and electrical hookups, starting switch, and detailed installation instructions. Fits most Hondas and Suzukis and the company hopes to develop the kit for



Starter comes with built-in battery recharger.

other manual start ATV's as well. Prices range from \$190 to \$250, depending on make and model.

For more information, contact: FARM SHOW Followup, GOKI Manufacturing Co., 9525 Cozycroft Ave., Unit F, Chatsworth, Calif. 91311 (ph 818 998-0852).

KEEPS ENGINE AT AN EVEN RPM LEVEL UNDER VARYING WORK LOADS

First "Cruise Control" For Diesel Tractors

Ag engineers at the USDA research station in Stoneville, Miss., have developed the first "cruise control" for diesel tractors. It lets you dial the exact desired engine speed and maintains that speed within 5 rpm's regardless of terrain and changing soil conditions.

"We're getting 5 to 10% better fuel efficiency. It could amount to more under certain conditions with different tractors," says Lowery Smith, who developed the add-on device which replaces the original engine governor with a vacuum diaphragm.

Key to success of the system is an electronic module that continuously reads rpm's off a digital tachometer. It translates the information into control decisions five times per second

by sending signals to an electric solenoid which acts on the vacuum diaphragm. The diaphragm then controls the fuel injector pump.

Smith says precise and continuous control of the injector pump saves fuel by throttling up gradually rather than adjusting all at once to load demand. It took less than \$200 worth of hardware to build. One improvement Smith plans to make in the system is to replace the vacuum diaphragm with a screw-operated stepping pump for more precise control.

For more information, contact: FARM SHOW Followup, Lowery Smith, Field Crops and Mechanization, USDA, P.O. Box 36, Stoneville, Miss. 38776 (ph 601 686-2311).