



Dozler converted a 1981 Ford Courier with a blown 4-cyl. engine to an electric-powered rig. It's equipped with 20 Trojan 6-volt deep-cycle marine-type batteries.

## Electric-Powered Farm Pickup

"We were standing outside the hog house one morning this spring, visiting, when this vehicle just sneaked up alongside us. The only hint we had that anything at all was coming up the driveway was the sound of gravel crunching underneath the tires," says Delaine Listamann about his neighbor, Paul Dozler, whose pickup runs on electricity.

"It's really ingeniously designed," Listamann says. "It's out of this world."

Dozler, who farms near Denison, Iowa, says recent developments in electric power technology make converting cars, pickups - possibly tractors - more practical than ever.

"I was going to convert a car to run on electricity 10 years ago, but the technology then was 'Stone Age' compared to now," he explains.

Dozler, who is a member of the Electric Auto Association (2710 St. Giles Lane,

Mountain View, Calif. 94040), found a 1981 Ford Courier with a blown 4-cyl. engine. He bought the truck, which had more than 150,000 miles on it, for \$500 from an area auto dealer. He started converting the truck last fall and had it on the road by spring, running 100% on electricity.

"It cruises along nicely at 55 mph and can do 65 mph or a little better," Dozler says.

"But the faster you go, the less mileage you get out of a charge. Traveling at 40 to 45 mph, you can go 50 miles between charges. Recharging takes about six hours using a 110-volt charger that I stepped up to 150 volts."

The truck is equipped with 20 Trojan 6-volt deep-cycle marine-type batteries wired in series. They weigh 71 lbs. apiece. Dozler hinged the bed of the truck and mounted the batteries below on a platform made from angle iron and steel plate. (Dozler beefed up the rear suspension with two



Batteries are mounted below hinged pickup bed, making them easy to get at for service and maintenance.

extra leaf springs to handle the load.) The batteries drive a 9-in. dia., 18 in. long D.C. brush-type electric motor, which will operate in a 72 to 140-volt range. The motor mounts in the engine compartment along with two of the 6-volt batteries. The pickup's 12-volt battery remains in place in the engine compartment to power accessories and electric motor controls on the dashboard.

The pickup bed is raised and lowered with a 3-in. hydraulic cylinder off a Case 600 combine header and a pump off an IH Farnall that's driven by a GM starter motor. The design makes it easy to get at the batteries for service and maintenance, yet leaves pickup box free for hauling cargo.

The hardest part of the conversion was hooking up the electric motor to the bell housing on the pickup's 4-speed transmission, Dozler says. Because of where the motor was mounted, he needed to close a

2-in. gap between the motor and transmission. He ended up bolting a 24-in. sq. piece of 1/2-in. thick aluminum plate to three 18-in. sq. 1/2-in. thick aluminum plates. He then bolted the 24-in. sq. plate to the transmission and attached the smaller side to the electric motor.

Special gauges and meters mount on the dashboard to monitor the batteries, alternator and 12-volt battery. One box mounted below the dash allows Dozler instantly to check out voltage of each individual battery before and after a charge as well as under load.

Dozler says components like the ones he used, can be purchased from Electric Vehicles of America Inc. (P.O. Box 59, Maynard, Mass. 01754), for a total of about \$5,000.

Contact: FARM SHOW Followup, Paul Dozler, 1967 Goodrich Loop, Denison, Iowa 51442 (ph 712 263-4510).

## DOUBLE WIRE STRANDS CHASE BIRDS AWAY

# New Way To Chase Pest Birds Away

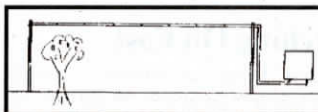
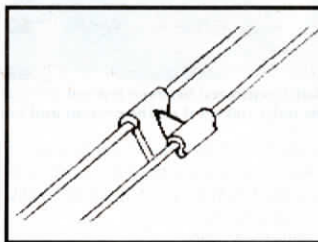
If you thought you'd seen every idea possible to chase away or eliminate pest birds, you'll be interested in this new idea from "down under" in Australia.

The idea is simple and many other people have probably tried it. What Tinsley Beck did was to run strands of ordinary electric fence wire up over fruit trees, buildings and crops that he wanted to protect from birds. The problem with the idea is that if you just run a single "hot wire", the birds won't feel a thing because they won't be grounded. What Beck did was to run two wires close together, one of them hot and the other one grounded. They're so close together - less than an inch apart - that when a bird lands, their feet hit both wires and they get zapped.

Once Beck realized the idea would work, he had to come up with a practical way to string the wires so they'd be close but wouldn't touch. What he came up with is a product called "Insulbird".

They're insulated plastic connectors that easily snap onto both wires, holding them close. Beck installs them every 3 to 6 ft. Insulbirds are made from long-lasting UV stabilized high density plastic.

"We've found that in many cases, installing a single pair of wires over a particular problem area is enough to solve a bird prob-



lem. One or two shocked birds are often enough to keep a whole community of birds away from the danger area. They communicate with each other," says Beck.

The positioning of the wires depends on what's being protected and what type of birds you're dealing with. Each situation is different. In an orchard, for example, Beck recommends trying a pair of wires along the edge and then one set every 60 ft. or so. Even if you have to put them closer, he notes, it's still cheaper than netting.

To set up, you simply use conventional

electric fence wire and energizers. The ground wire can be anchored to a stake in the ground or a spike driven into a tree.

"You'll have success with this idea anywhere birds are a problem - barns, feedlots, crops, boats, fish ponds, etc.," says Beck, who has set up a company to market Insulbird clips. They sell for about 18 cents

apiece (Australian dollars) for any amount up to 500 (an order of 500 units is \$90) and 14 cents for the next 1,500. Orders beyond 2,000 units are 10 cents apiece.

For more information, contact: FARM SHOW Followup, Tinsley Beck & Family, Beck's Goat Dairy, Lot 19 Bailup Road, Western Australia 6083 (ph 09 574-7169).



Norris cut off the front end of his Allis Chalmers tractor and bolted a hitch on front so that he can pull it like a trailer behind his Farnall.

## He Cut His Tractor In Half

When the engine failed on his old Allis Chalmers tractor just as he was heading out to the field last spring to plant beans with an older model 3-pt. mounted planter, Frankie Norris had to make a tough decision quick. The part time farmer's other tractor - a Farnall - did not have a 3-pt. hitch so it would not be able to handle the planting chores. So what did he do? He just cut off the front end of the Allis tractor and pulled it like a trailer behind the Farnall.

"It took only about 20 min. to cut the tractor in half just ahead of the transmission bell housing. Then I bolted a hitch to the front of the cut-off tractor that fits

on the drawbar of the Farnall. This lets me use the Allis Chalmers 3-pt. hitch, and by putting the tractor in gear, I can ground-drive the hydraulic pump to raise and lower the 3-pt. at the end of the row or for transport," notes Norris.

He has also used the cut-off tractor to mow hay with a pto-powered mower and to spread fertilizer.

Eventually, Norris plans to weld the front half of the tractor back in place and repower the tractor with a VW diesel engine.

Contact: FARM SHOW Followup, Frankie Norris, Rt. 1, Box 1942, Montross, Va. 22520.