



To catch bugs when traveling down farm roads, entomology professor David Beresford secured a big net made out of mosquito netting to the top of his pickup.

“Fly Guy” Hits The Road With Pickup-Mounted Net

Stable fly researcher David Beresford’s tricked-out, bug-catching pickup draws crowds wherever he goes.

The Trent University entomology professor and researcher – known as the Fly Guy among local Ontario farmers – wants to catch bugs when traveling down farm roads. So, he made a big net out of 1-in. conduit and black mosquito netting secured with lamp wick seams, and he secured it to the top of his truck. The back of the net connects to a large flue pipe duct-taped to a funnel that drops captured insects into 1/2-liter plastic bottles on a carousel under the pickup topper. Made of plywood, 1-in. angle iron and an old dryer bearing, Beresford can turn the carousel with a lever and bike cable from inside the cab. His scientific approach is to change bottles every five kilometers to determine where stable flies are and hopefully help predict when they will arrive at area farms.

“It’s important to control them in a way that’s thrifty. If you’re not thrifty you kill the wrong insects, and you waste money and don’t get any benefit,” Beresford says.

He explains that stable flies resemble houseflies, but they have a bayonet for a mouth to bite cattle on the legs and suck blood. That riles the cattle and affects weight gain and milk production. A Nebraska study estimates the stable fly costs U.S. dairy and beef producers \$2.4 billion annually.

In addition to studying effective traps to capture stable flies, Beresford gathers flies in a 30-square mile area and combines that information with weather and temperature. By determining the number of growing degree days before they arrive, farmers could begin eradicating them earlier when the numbers (and eggs) are fewer.

Another thing Beresford looks for are mites on the flies. Mites are good, he says, as they will eat many of the eggs the flies lay and reduce the numbers of flies on a farm.

To kill the flies, Beresford makes traps made of corrugated plastic covered with white fabric netting sprayed with 1/10 mix of Ectiban and water. The key is to place them low (about 12 in. above vegetation), where stable flies travel. Commercial sticky traps should be set up about 8 in. above short grass and 9 1/2 in. above tall grass. Dairy farmers, who use spray, apply it at ankle height to target the biting stable flies and not the non-biting flies that fly at a higher level. Beresford notes that sprays do kill flies, but they also kill the beneficial mites, so he prefers traps.

“I’m against wasting money and not killing the target. You should use spray like a rifle, not a shotgun,” Beresford says.



Captured insects drop through funnel into plastic bottles on carousel under pickup topper.

Reduce breeding areas by keeping bedding and manure as dry as possible. In warmer areas where flies can overwinter, throw out wet bedding around waterers and stock tanks in the winter. In the spring, remove wet organic matter to prevent the flies from hatching.

Beresford says he’s grateful for the farmers who have allowed him to do his real world research. His goal is to get information to as many producers as possible. Driving around in a truck with a big net may only gather 10 to 15 stable flies at a time, but it also attracts media attention that helps spread results of his research.

Contact: FARM SHOW Followup, David Beresford, PhD, Assistant Professor Biology Department, Trent University, 1600 West Bank Dr., Peterborough, Ont. K9J 7B8 Canada (ph 705 748-1011, ext. 7540; davidberesford@trentu.ca).



Malcolm Lucas of South Australia converted this German-built Fortschritt 5160 combine to electric power using off-the-shelf, 3-phase electric motors.

“World’s First” All-Electric Combine

By Dr. Graeme Quick

One of the most exciting new trends in farm equipment is the advent of tractors with on-board electric generators that eliminate the need for a hydraulic system. Deere, AGCO and Belarus already have diesel-electric tractors on the market in Europe.

Now you can add an electric-operated combine to the list. Malcolm Lucas of Kangaroo Flat, South Australia, recently converted an East German-built Fortschritt 5160 combine model to electronic power with off-the-shelf, 3-phase electric motors.

“I’ve used this all-electric combine for 3 years with excellent results. It has about 1,500 hrs. on it,” says Lucas. “There are no mechanical drives on the machine, and it’s compact and easy to operate.”

Lucas bought 9 Fortschritt combines from Horwood Bagshaw Limited of Mile End, South Australia, which had been toying with the idea of becoming a distributor for the rugged green machines. However, the company went through a management crisis and Lucas was able to buy the brand new machines for just \$100,000. Then he and an avionics engineer set about converting one of the combines to electric drive.

They replaced the original engine with a Cummins 330 hp, diesel engine, which is direct-coupled to a 300 KVA 3-phase, 415-volt generator. Power controllers distribute electricity to no less than 25 3-phase electric motors. The electric motors are fitted into the combine from head to tail and are even used to power the working parts on a chaff cart



“I’ve used this all-electric combine for 3 years with excellent results,” says Lucas.

that trails behind the combine.

“The chaff cart is designed to capture chaff coming out the back of the combine for use as livestock bedding, and at the same time dispose of weed seeds gathered by the combine,” says Lucas. “Three of the electric motors are equipped with cab-controlled, variable speed drive controllers that are used to drive the combine’s thresher, fan and reel.”

Besides owning an electric-drive combine, Lucas has also built a manure spreader that’s operated by electric motors.

Contact: FARM SHOW Followup, Dr. Graeme Quick, Engineering For Agriculture, 83 Morrisons Rd., Peachester Qld 4519 Australia (g.quick@bigpond.com).

How To Subscribe To FARM SHOW (New & Renewal)



Take out a new subscription (or renew your existing subscription) and get a FREE copy of our new 168-page “Garden Tractor” book.

Yes! I want to be first to learn about latest new products. Please sign me up for FARM SHOW and send me a FREE copy of your just-published new 168-page book “Look What They’re Doing With Garden Tractors”.

Check here to renew.

United States

- \$21.95 for 1 yr.
- \$41.95 for 2 yrs.
- \$57.95 for 3 yrs.

Canada

- \$27.95 (Can.) for 1 yr.
- \$53.95 (Can.) for 2 yrs.
- \$71.95 (Can.) for 3 yrs.

My check (\$ _____) is enclosed.

Name _____

Address _____

City _____ State /Prov. _____ Zip _____

Make check payable to FARM SHOW.

Clip and mail this coupon to:

FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044
Phone toll-free 800 834-9665 or go to www.farmshow.com
VISA, Mastercard, Discover, Paypal & Amazon accepted.