

# Avoiding Spray Drift Makes Neighbors, Budget Happy

COLUMBUS, Ohio — From any standpoint, spray drift is nothing more than a big headache. When pesticide spray drifts to someone else's property, it can make neighbors mad and result in food safety and environmental problems.

But there are also economic reasons to avoid spray drift, said agricultural engineer Erdal Ozkan, Ohio State University. Spray drift wastes chemicals, which can chew up a farmer's expense account, an important thing to remember as crop prices keep sinking, he said.

Here are five ways spray drift can affect a farmer's budget:

- Inefficient use of application equipment and applicator's time.
- Potential under-application of chemicals and ineffective pest control that all require more applications, can reduce yield, or increase production costs.
- Potential chemical overuse when the applicator intentionally overapplies to compensate for drift losses in order to achieve a desired level of control.
- Costly lawsuits if drift damages sensitive crops in nearby fields.
- Mandatory crop destruction if residues contaminate food-stuffs.

June could almost be called "Spray Drift Month" in Ohio and Indiana. Typically windy conditions stir up herbicides as farmers rush to make burn-down and post-emergence treatments, Ozkan said.

In fact, the Ohio Department of Agriculture (ODA) typically receives most spray drift complaints in May or June each year. In the past two years from one-fifth to nearly one-quarter of all annual complaints received by ODA were concerned with spray drift.

The key element in reducing drift potential is operator's knowledge, Ozkan said. Drift is, above all, a human problem, not purely a technical issue, he said. A farmer's attitude as indicated by care and skill go a long way toward reducing drift.

"The bad news is that spray drift occurs wherever liquid sprays are applied," Ozkan said. "The good news is that although complete elimination of spray drift is impossible, problems can be reduced to a minimum."

Wind is a major factor, but

other less-obvious weather factors also influence drift, Ozkan said. These are low relative humidity and high ambient temperatures, he said.

Spray droplet size can also influence drift, Ozkan said. OSU research shows that a high volume of small droplets relative to larger ones increases drift potential. Droplet size can be easily adjusted by carefully selecting nozzles with appropriate characteristics for the product being sprayed, or by spraying at a lower pressure.

On the research front, scientists at Ohio State's Ohio Agricultural Research and Development Center at Wooster have developed a prototype sprayer that promises to keep spray drift in check while using half the amount of pesticides to boot.

The "Spray-less" double nozzle sprayer is designed to be

retrofitted to hydraulic sprayers. One nozzle shoots a coarse water spray; the other shoots a fine pesticide spray. The big drops carry the small drops into the plant canopy, where the small drops stick and do most of the work. Without the big drops, most of the small ones would drift away.

Farmers can check out OARDC's research results at this World Wide Web site: <http://www.oardc.ohio-state.edu/lpcat/Dblenozl.htm>. And they don't have to wait too long to see the real thing. The first big push to demonstrate the sprayer will be the 2000 OSU Farm Science Review, Sept. 19-21 near London, Ohio.

Other major factors influencing drift are using proper procedures for a piece of spraying equipment and following application techniques, Ozkan said.



## Montgomery County Agricultural Fair Catalogs Available

Taken a good photo? Made a nice quilt? Have a pet rabbit? Why not enter them in the fair?

The premium catalog, which is a reference book for anyone interested in exhibiting, for the 2000 Montgomery County Agricultural Fair in Gaithersburg, Md., is available from the fair office, any Montgomery County Public Library, and the Montgomery County Conference and Visitors Bureau.

The annual exposition, billed as Maryland's largest county fair, will be Friday, Aug. 11 through Saturday, Aug. 19.

The fair features 2000 as "The Year of the Horse" and "The Year of the Home Arts" as the highlighted outdoor and indoor departments. Many special events have been planned to spotlight these two exhibit areas. A miniature horse show featuring horses shorter than 38 inches and a "Babies in the New Millennium" community baby shower have been planned.

"Continuing a "featured breed" program that results in more prize money for exhibitors, this year's features are the

Guernsey and Milking Shorthorn breeds in the dairy department, the Shorthorn breed in the beef department, the Montadale breed in the sheep department, and the Nubian breed in the goat department.

The beef department again offers a nationally sanctioned Texas Longhorn Show Saturday, Aug. 19, at 2 p.m. and is looking forward to the addition of an American Shorthorn Association sanctioned Invitational PACE (Point Accumulation Event) Show Wednesday, Aug. 16, at 9 a.m.

General entry registration for animal exhibits is due July 10. Indoor 4-H and open class photography exhibit entries are due July 20. Advance registration for all other departments is not required. Entries for those departments will be received Thursday, Aug. 10 and Friday, Aug. 11. Consult the catalog for specific times and locations of specific departments.

For more information, call the fair office at (301) 926-3100, ext. 212. Requests can also be faxed to (301) 926-1532. Visit the fair's website at [www.mcagfair.com](http://www.mcagfair.com) for general fair information.

## MAILBOX MARKET FOR SALE

1980 Peerless 14'x70' mobile home needs to be moved. Appliances included \$3800 Dauphin Co 717-692-3665

1947 Chrysler Windsir 4 dr solid body, not running BO trade for hit and miss engines Union Co 570-966-1249 or 538-3451

School desks and student chairs \$5 each call after 6 pm Cumberland Co 717-532-3084

JD 3950 harvester, metal detector hyd tongue with 2RN green corn head ex cond Cumb Co 717-241-5482

Two horse bumper pull step-up trailer, good cond \$1000 1987 Ford Club Wagon van, diesel 15 passenger \$2500 Juniata Co 717-444 2500

16 roof trusses 9/12 pitch 24 6 wide with 18' overhang new! Lycoming Co 570-584-5455

3 year old Highland Bull no papers \$650 1 4 month old Highland bull York Co 717-766-2011

New Holland bale carrier elevator 24 ft \$150 Cumb Co 717-249-0875

1993 Dodge Shadow 5 spd 74k ex cond new t-belt new brakes 4 door \$3900 Bucks Co 215-249-3767

Blue & gold Macaw talks Moluccan cockatoo male cages available, Hereford bull & bred cows, make offer Monmouth NJ 732-938-9208

IH 444 diesel tractor, power steering, hydraulic outlets, good tires, runs ex \$4500 OBO Straw \$1 50 per bale Berkeley Co 304-754-7615

Mixed round bale hay 4x4 2 Massey 101 senior parts tractors 1950 Ford F7 dump truck needs motor Wyo Co 716 786-2408

323 New Idea corn picker like new condition \$3000 Gehl 700 harvester with belt conveyor good shape \$2950 Lanc Co 717-627-4864

Stainless steel 7' restaurant exhaust hood, Univey 12 quart mixer, tabletop electric pizza ovens, stainless 3 bowl sink, Schuykill Co 570-467-2679

Bicycle owner retiring - bicycles, seats, wheels fenders, lights etc Also two Ford fire trucks, make offer Crawford Co 814-694-2500

Choice registered Shropshire ram, ewe lambs, good breeding stock drenched vaccinated for overeating disease Leb Co 717-949-3653

Horse trailer, 4 horse bumper pull needs some work \$1200 also 1 black western show saddle \$200 Leb Co 717-274-3297

Penn Crisp celery plants, David Nolt 6221 Snapper Dr., Ephrata, Pa 17522 Lanc Co 717-354-7595

Bead blast cabinet with separator and dust collector \$150 MH 101 Super RC motor free good fenders \$500 Northampton Co 610-837-6047

New Ideal model 14 grounu driven manure spreader, good cond \$800 Best offer cultipacker 8 ft \$50 York Co 717-244-7364

Mennonite youth carriage on rubber, lights ex cond Lanc Co 717-445-4305

OC 3 w/loader rebuilt engine, rebuilt UC needs work, \$1850 Terratrack GT25 restore or parts rebuilt transmission \$1250 Hunterdon Co 908-806-8512

Go-Kart complete but needs motor several other Go-Kart parts \$250 OBO Nos spark plugs oil filters air and gas filters Carroll Co 410-756-4060

Bull good for heifer breeding, sire Penn State Angus Berks Co 610-678-9326

300 International 2,000 OBO 6 ft rotary chopper used 1 acre 3 times \$900 Both \$2800 570-275-6804

Gleaner floating row dividers, V G shape, paid \$500 for both, sell for \$450 St Marys 301-994-0972

2 horse 1981 GN king trailer with lq heater, refrigerator, stove, sink, Q-bed \$4500 Registered miniature and standard donkeys \$300 up 315-858-1212

One seated Menn carriage g c tires \$1850 Horse harness with collar breast strap, g c \$175 Lanc Co 717-484-4623

Floor loom Nilus Leclerc 36 inches four harness, six treadle warping frame, warp beam spool winder shuttles, books Lanc Co 717-872-7452

Hydraulic lift used to dump corn wagon \$100 Dauphin Co 717-599-5934

Side saddle \$275 JD dump rake \$75 3 pt hook rake 1960 Cub Cadet original 7 HP \$600 Allegheny Md 301-478-5767

1200 Fickes silo staves, painted white 23 door frames, tri pot, outside ladder \$1800 OBO on pallets Lanc Co 717-354-7275

1066 Int tractor, good rubber, 892 NH Harvester with bed, 456 NH mower all in good cond Lanc Co 717-768-0805

1996 horse trailer, all alum two horse slant load, step up like new, extras, used once \$8500 Chester Co 610-269-1871

1987 Kenworth tractor new 400 Cat 1989 Freightliner 425 Cat 1989 Freightliner 350 Cat 1988 Volvo 24 ft body, New Haven 203-468-9833

1995 Thomas T173HL skid loader, 52 HP Kubota diesel engine, aux hydraulics 680 hours 70" dirt bucket, \$13,000 Schuykill Co 570-739-2598

Registered Olde English Babydoll sheep and lambs, black and white, also fainting goat and pygmy goats Reasonable prices Lehigh Co 610-756-4055

Old travel trailer, 8'x24' would make good hunting cabin or animal shelter, free, you haul Cecil Co Md 410-287-5277

Black male, tan female ostrich \$300 ea Md 410-641-3682

AC B on steel with cultivators, hydraulic lift, electric start, runs great \$900 Lanc Co 717-445-0473

Bank barn 76x57 with 25x82 addition, to be demolished for homes, best offer Milton Hershey School Dauphin Co 717-520-3999

Wood RM 59 finishing mower very good shape with extra belt \$550 St Marys Co 301-475-2782

1993 Harley Davidson Heritage, like new 15,000 or trade for backhoe 1970 Mach I 60% restored, 5,000 Wash Co 301-842-2502

Three legged pipe stand, clamp type, great for plumbers and pipe fitters, ex cond \$85 Burlington Co 856-235-9267

JD 820 1952 pony, rubber, metal ex \$10,000 OBO JD D puller bored, aluminum pistons, water \$4500 OBO AA Co 410-798-1234

81 GMC Alum step van, 13' box V8, good cond Good tires, 10 GVW \$4,000 Leb Co 717-279-0699

Gestation stalls, complete farrowing crates, nursery feeders, fans, heaters and loading ramp, need to move, call, good deals Northumberland Co 570-742-1870

Sauder front blade for Ford/Ferguson tractor very good cond photo available \$225 York Co 717-938-6480

1976 White 2-70 Field Boss tractor, WFE heated cab, FE loader 2438 hours, barn kept, gas, ex \$12,500 Columbia Co 570-925-6867

Anderson storm windows, 1976 F150 pickup lots, new parts, old wooden shutters Franklin Co 717-369-4559

Two year old Polled Hereford bull, ex breeding, sired by 45 Renewal, heavy muscled calves on ground Berks Co 717-866-4185

MGS tandem trailer with produce stand with table 18 ft long 7 1/2 wide Lanc Co 717-354-7419

Yanmar 1610D like new 450 hours, 3 speed power shift, 12 speed trans, 24 HP \$5500 Lanc Co 717-733-6590

Disease resistant breeder ducks, fast growing type muscovy Aaron Hoover, 499 W Maple Grove Rd., Denver Pa 17517

New Ideal 7 ft pull type sickle bar mower, good cond two row Ford cultivator 3 pt hook up Chester Co 610-827-7509

NH 270 baler 2 flatbed wagons, 1 bin wagon hoper cart, MF manure spreader, pr 18 4x26 tires & wheels Adams Co 717-334-7060

Blk 52" pony mare, rides, works single or double, gentle \$900 Cobb harness like new \$160 Saddle \$50 Lanc Co 717-336-7273

93 Dodge Conv van 78k miles, auto, dual air B250 needs interior \$3750 Good cond Northampton Co 610-837-6647

JD 444 and 244 corn-heads, JD 46A loader, JD 2010, concrete block bed with block crane, Chester Co 717-529-2269

IH 84 hydro, sharp, 3200 hrs, Gleaner CII combine, 4 row narrow, 13' platform Bucks Co 610-346-8040

AKC choc lab puppies for sale David G Beiler, 225A North Hollander Rd., Gordonville, Pa 17529

Crippen grain cleaner \$2300 11 ft rock flex disc \$2800 Full size truck cap \$125 Alfalfa \$135, straw \$100 Lanc Co 717-426-1742

Ferguson TO30 3 pt hitch, PTO good tires, runs good, needs paint and minor repair \$2200 OBO Harford Co 410-692-2006

AKC English Springer Spaniel puppies \$325/\$300 hunting stock black or liver, ready to go Berks Co 610-683-5428

Tool boxes for pickup truck 8' used 3 months, cost \$1,000 Sell best offer over \$600 ask for Scott Lanc Co 717-393-9920

F12 and F20 Farmalls both run \$500 ea Also 5 HP Economy Hit and Miss \$1000 Cumb Co 717-486-3754

John Deere 318 riding mower 560 hrs like new cond Lanc Co 717-354-5489

Farmall A w/belly mower, Allis Chalmers G w/belly mower, old barn frame landscape rake 7 ft Cumb Co 717-258-4610

Timothy hay, round bales, small and big square bales, wheat straw, small square bales Adams Co 717-359-7327

Shelty puppy AKC female, average size \$130 Harvestore roller mill 5 HP \$660 Kidd 6-10 big bale chopper \$2800 Lanc Co 717-733-8658

1963 Chevy dump truck, short wheel base 8' body, runs and operates well 21000 GVW, \$800 Chester Co 610-696-1288

275 gallon fuel tank gasboy hand pump \$75 Craftsman wood lathe 1/4 HP motor & Stand \$150 York Co 717-292-9681

3-24" Jacobsen Fairway mowers \$300 6 ft pull disk \$100, 40 bales rye straw \$200/bale Berks Co 610-944-0981

1989 1 ton Ford F350 stake body dump bed 65,000 original miles, one owner \$10,500 OBO York Co 717-266-3546

Brass carb body for JD Nos small nut \$200 used rods and pistons for JD B \$125 York Co 717-938-6656

30 Muscovy ducklings bewinged \$2 ea Lanc Co 717-426-3871

Ariens reartine tiller 5 HP, Dewalt 10" radial arm saw, Rockwell drill press, Craftsman radial arm saw, all good cond Lanc Co 717-354-7151

Minnesota Valley eng semen tank model AL30 17" dia 24" high make offer good cond Lanc Co 717-656-4432

Mules, Sorrel molles, 15 h, 4 yr greenbroke to work 2 yr old greenbroke to ride, gentle disposition \$1000 ea Centre Co 814-349-5536