

Fly Wars

Plan to spend time at the stable this spring? The flies do, too. Read on if you'd like to win the bug battle.

By Georgia Brown

Biting flies can worry your horse and the people around him, changing a good day at the barn into a frustrating game of stomping, swatting, spraying and scratching. But never fear! Proper manure management, coupled with unique fly control methods, will make all the difference in decreasing the number of bloodletting flies in your barn this year.

Before fly season begins in late spring, rev up your program! The primary flies that pester confined horses are stable flies and horseflies – particularly vicious biters that make life miserable for horses and people. All biting flies have sharp mouthparts that allow them to bite and suck blood for up to several minutes. Females deposit masses of eggs on wet soil, wet bedding, spilled feeds, grass cuttings and other moist vegetation.

Non-biting houseflies breed in nearly the same environments, and like their barn-mates, adult females produce hundreds of eggs in 10 to 21 days. Although they may not bite, they can carry contagious equine diseases, cause dermatitis, and transmit dangerous surface parasites like “summer sores.”

All flies can migrate readily over several miles from breeding sites in just one or two days.

Do we have your attention yet? Are you ready to bust the bugs before they overtake your lives? Repeat to yourself, “I am smarter than the fly. I am smarter than the fly. I am smarter than the fly...”

Your immediate defense might be an insecticide fogger or fly spray, but its effectiveness diminishes considerably when new flies enter the area. To best reduce fly populations, combine good barn management with sprays, oils and other products applied directly to your horse.

Skin Surface

The most popular fly control products are insecticides sprayed directly on your horse to kill and keep flies away. Not sure which products to buy? Study labels for ingredients such as pyrethrins, a group of chemicals found in chrysanthemums. The painstaking procedure that reduces the chrysanthemum flower to a useable chemical make these products costly. Some sprays will include synthetic chemical ingredients to intensify the

potency of pyrethrins.

Wipe-on products have a longer-lasting effect than sprays, which usually diffuse a significant amount of the repellent into the air. Citrus-based sprays are usually repellents – not insecticides.

Fly masks cover up your horse's eyes and nostrils and prevent insects from feeding on the horse's secretions. Ear protectors and leg netting are other physical guards that keep flies and gnats from making contact. Fly sheets made of Textiline™ protect your horse from harmful UV radiation and insects, while keeping the horse nice and cool.

Manure, be Gone!

The first line of good barn management is to prevent fly larvae from hatching. Frequently disposing of used bedding and droppings in paddocks is the initial course of action. Composting, spreading it on your fields or burying manure in a pit are other options.

Compost It

Composting is an option for many facilities – especially if you have access to a front end loader to move large amounts of manure. Ann and Chester Prince own Prince Farms, a 15-acre facility in Palmetto, Florida, where they raise world class American Quarter Horses. The farm has a 34-stall training barn that is the home of Clay Farrell Performance Horses.

Prince Farms composts in a far corner of a field, keeping the mounds moist with a hose during the dry season. After about 18 months, the piles decrease by about a third, and that's when they spread the end product on their fields.

“ We have the equipment to do it ourselves, but for smaller operations you can get it done by a commercial fertilizer spreading service,” says Ann, who is a past president of the Florida Quarter Horse Association.

“Because we are adding manure daily, the heat generated inside the piles kills harmful larvae.”

Read more about how to easily design your own environmentally friendly compost pile in the next issue of ec magazine.

Spread It

Belt-driven spreaders break down and scatter manure and bedding over your pastures. Although this method breaks up manure and exposes it to sunlight, the process unfortunately can reintroduce some parasites to grazing areas. If you have a neighbor with cattle, ask if you can spread on his or her land. Cattle pastures typically welcome this fertilizer, and cattle aren't susceptible to equine parasites. Also, if your manure has a high

shavings content, your fields might turn yellow – signaling that you need a higher amount of nitrogen fertilizer to balance the soil.

Bury It

If you have a natural low spot on your land, manure is a great filler, using a backhoe or bulldozer to cover the manure filling with topsoil or to level it from time to time. Be sure not to interfere with natural drainage. Because the manure will decompose and depress, be certain to stabilize the mound, especially if people or horses will be walking over it. Keep in mind that the top 2 inches will be breeding grounds for fly larvae.

Chemical Controls

Foggers, automatic sprays and surface insecticides all reduce the fly population; however, read the label carefully. Over time, insects become resistant to some chemicals, especially with inexpensive insecticides that do not contain Piperonyl butoxide (PBO), a chemical that breaks down the bug's immune system. Choose a permethrin or pyrethroid that contains PBO. Take care to follow instructions on the label. If the labels instructs you to evacuate the barn before spraying – do it; these chemicals (even some inert ingredients) can be harmful to people and animals.

Automatic Barn Sprays

Intermittent aerosol spraying systems, which release pyrethroid-based insecticides four or more times daily, can be installed in your barn. This solves the problem of new flies migrating from outside, but the spray should be biodegradable and contain PBO if the substance comes into contact with stalled horses and people. These formulas have labels marked “for overhead systems.” Insecticides with warnings on the label should never be distributed through automatic systems.

Ann Prince has used automatic spray systems in her barn for more than eight years, dispensing Shoofly's mixture of natural pyrethrins.

“ It may cost a little more, but it is safe for people and horses and we have been happy with the results,” Ann says. “Our program has evolved over 18 years and we just don't have a fly issue.”

Paula Haderle of HWH Ranch in Melbourne, Florida, uses Country Vet's metered fly spray with pyrethrins. Approved for use in dairies and kennels, the sprays are available in aerosol cans that fit into battery-operated dispensers that simply mount with a nail. Three cans keep the Haderles' nine-stall barn free of flies.

“ It's simple to use and disposable,” Paula says. “I change the cans every 30 days and the batteries every two months. I've used it for a year and it

couldn't be easier.”

In addition to the spray system, the HWH Ranch collects manure in a pile until they have a large truckload to haul away.

Fly Strips

Yellow ribbon insecticide tapes have been catching flies with their sticky surfaces for decades. They can be hung around the stable at the rate of one strip to each 1,000 cubic feet of enclosed space. Do not hang strips near light bulbs or within reach of animals or children.

Fly Traps

Commercial container traps come in many designs and sizes – some are even disposable. Popular choices are clear plastic bags or break-resistant plastic jugs with openings for flies to enter. Usually the container holds water and a hormone bait to attract flies. Traps do not use insecticides and are safe for use around children, pets, and livestock.

Bug Bait

Fly food granules attract flies with special aromas and are usually yellow or orange – colors thought to attract flies. For best control, apply baits liberally. A minimum of 4 ounces of bait per 1,000 square feet of clean floor area is recommended when flies are breeding.

Feed-through Products

Feed-through products, which can be regularly added to your horse's daily feed ration, sterilize manure, making it unusable as food for fly larvae. Manure produced by a horse on a feed-through product will prevent the fly larvae from developing into an adult. In order for this method to be effective, all horses in your neighborhood must receive the additive – or flies migrating from surrounding areas will thwart your efforts.

Natural Fly Control

Fly Predators

Tiny, non-stinging members of the wasp family are gaining acceptance among horsemen because they are safe for your horse, the environment and don't eliminate beneficial insects.

Called fly parasitoids, these nearly invisible insects feed on the larvae and pupae (cocoon stage) of the fly. Research shows these are the fly's natural enemies, attacking fly larvae that is present in manure, grass and damp soil. These affordable “smart bombs” don't swarm and are nearly invisible.

Several companies ship containers of these immature insects in shavings

directly to your mailbox. When kept in ideal temperature of 70 to 80 degrees, the hatchlings begin to crawl around the edges of the containers. You can delay hatching by keeping them at 40-50 degrees, the average refrigerator temperature, but do not leave them in direct sunlight or intense heat. When they begin to show movement, barn managers set them free, spreading them in barns and stalls, areas with dirt floors, paddocks, manure pits or compost piles, and wherever manure accumulates on a daily basis. These tiny wasps are passive insects and do not migrate into living quarters like flies or crawl all over you when being handled.

Fly predators migrate about 300-400 feet and should always be left in grassy areas where manure is available. Experts recommend purchasing 5,000 wasps per horse, which is equal cost-wise to a quart of fly spray. When dispersed on a monthly basis, these predators will deliver lasting results.

Tom Hamblen has been spreading fly predators over the 1,200-acre Kentucky Horse Park show facility and farm for seven years. "For being so minute, they do a big job," Tom says. "If we see even a few flies in a barn we're surprised. People that show horses here have noticed that we don't have a fly problem and they call and email us to ask why."

For the Kentucky Horse Park, a shipment arrives monthly from Spaulding Labs in California in a box with a clear panel, allowing you to observe them as they begin hatching. Hamblen drives around in a truck, dispersing them by the handfuls near the show barns, along fence lines, in paddocks and near the manure pit. Since he has been dispersing them in the grass near the farriers' barn, the farriers have no longer needed fly strips.
online resources

Fly predators usually do not multiply as fast as flies during the same time period, so new releases should occur monthly from May through the end of the fly-breeding season. Do not fog with insecticides if you are using this method.

If We all Join Forces...

If you have a large farm and spread the recommended amount of natural predators, your fly population is sure to dwindle. But if you have close neighbors with a fly problem, your battle could be in vain.

Join up with your neighbors this spring and win the bug war once and for all! Georgia Brown

Freelance writer Georgia Brown lives in Sarasota, Florida. She owns several senior horses that will be receiving the very best in fly prevention and fly control products this year!

