



## Controlling External Parasites

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Along with the fun of warm weather comes the problems of external parasites; those pesky creatures that can turn any horse into a fidgety, stomping maniac. These parasites bother your horse in a number of ways. They can distract and disturb him, cause sores or swelling leading to infection or allergies, cause dermatitis or anemia, spread disease, and infect your house with other parasites.

When your horse:

- ◆ Bites at himself
- ◆ Rubs parts of his body
- ◆ Loses his appetite
- ◆ Develops sensitive body parts
- ◆ Shakes his head or stomps his feet
- ◆ Runs madly around his paddock
- ◆ Is nervous or irritable he may be telling you that these parasites are bothering him

External parasites that affect horses fall into seven categories: flies, mosquitoes, gnats, mites, lice, ticks, and fungi. The varieties of external parasites that bother your horse depend on the geography and climate you live in. Control of these pests depends on your stable arrangement and your management style. However, understanding the life cycles of these pests can help in control by letting you know how to interrupt their lives and stop new parasites from growing.

### Flying Parasites

There are three kinds of flying parasites: flies, mosquitoes, and gnats. Most flying parasites have four stages in their life cycle: egg, larva, pupa, and adult. While the adult stage is often the biggest pest to horses, removing breeding areas can help in control.

#### Flies

Most flies lay their eggs in rotting or damp organic matter – such as old hay or bedding, grain, piles of grass, or manure – or in wet areas such as a muddy area around a water tub. Good stable management practices can help control flies

by removing places where larva can grow. Drain any muddy areas; clean up any spilled feed, pick up manure in pastures and paddocks or scatter it by dragging, and keep manure piled and covered so the heat of decomposition will kill larvae. Keep items that attract flies, such as grain, in covered containers.

Most adult flies like heat and sun, so providing shelter for your horse during hot, sunny days is important. Make sure the shelter is kept clean, and consider adding a walk through barrier such as hanging strips of carpet or cloth that will brush the flies off as your horse enters. When your horse has turn out only during part of the day, change turn out to times when the flies are not active such as evening or early morning.

## Mosquitoes

Mosquitoes lay eggs in standing or slow moving water, so make sure things like old tires and buckets where rain water can collect are removed, and drain any standing water such as low spots in your paddock. Change the water in your water tub regularly and make sure it is located in a well drained area.

Most mosquitoes are active during early morning and early evening. They will travel into buildings, so mosquito control inside your barn as well as outdoors may be needed. Fans can sometimes be helpful.

## Biting Gnats

Gnats are tiny flies. Some gnats are not irritating but biting gnats can have very painful and irritating bites when they are small. The bites can be itchy and can cause swelling and bleeding. They especially like areas with little hair such as the face, ears, folds of skin by the elbows, the insides of the legs, the midline of the belly, and the base of the mane or tail. They lay their eggs in standing water or on rocks in flowing water. Eliminating breeding areas and spreading petroleum jelly on your horse in the areas affected can be helpful.

## Controlling Flying Insects

There are many kinds of fly products available that can help make your horse more comfortable. Insecticides will actually kill the flies while repellents will keep them away from your horse. Use whichever brand seems to work best for you. Remember to do an allergy check first by putting just a bit of the product on a small spot on your horse's belly for a day. Check it for a reaction before using the product on his whole body. Do this check whenever you switch to a new product. There are also premise insecticides that you can use inside your barn to make your horse's shelter pest free. Make sure to follow instructions carefully since most insecticides are poisons. Also identify the active ingredient in your product and switch to a different type of ingredient at least once during the season so the flies do not develop a resistance to your insecticide. Do this for both your horse spray as well as your premise spray.

Other control measures to consider could be the use of feed additives, baits or traps, insect predators, and horse clothing. Feed additives in the form of powder or blocks have chemicals that pass through the horse and kill larvae in the manure. Baits or traps can capture flies in areas where they gather but aren't effective for large areas. Fly predators are tiny, non-stinging members of the wasp family which deposit their eggs in fly pupae. The wasp larvae eat the parasite inside the pupa. Horse clothing such as face masks, ear nets, and fine woven body sheets can be effective barriers to some parasites.

## Crawling Parasites

There are three types of ectoparasites that crawl on the horse: mites, lice, and ticks. These attack, attach, or burrow into the horse's skin. They have three stages in their life cycle: egg, nymph, and adult.

### Mites

Some mites lay their eggs on the ground, others on the host. Mites are contagious and can infect your horse through contact with infected equipment or an infected animal. One kind, sarcoptic mites, can also infect people. They cause mange either by feeding on the skin or burrowing underneath it. They are seen most often in autumn and winter.

Regular cleaning of the stable area as well as regular grooming of your horse is the best prevention. If your horse does get mange you will need to ask your veterinarian for a pesticide program to eliminate the mites. More than one treatment will probably be needed since the first treatment may not kill the eggs. You also need to disinfect everything that your horse contacts to prevent the spreading of mites to other animals or to yourself.

### Lice

There are two kinds of lice that affect horses, chewing lice and sucking lice. They will spend their entire life cycle on their host. Horses can get lice from other infected horses, contaminated equipment or bedding, or from flies that have them. Like mites, regular cleaning of your stable and equipment and grooming of your horse is the best prevention. Infected horse will look unthrifty and the eggs, called nits, can be seen at the base of the hair. Horses infected with lice need to be treated with an insecticide at regular intervals to kill developing larvae.

### Ticks

Ticks feed on blood to grow. After feeding they drop to the ground, grow to the next stage and then climb on grass or brush waiting for the next host. For best control remove brush and keep pastures clipped to remove hiding places. Check your horse after trail riding or after grazing in tall grasses. Use baby oil on the roots of the mane and tail and on the fetlocks so ticks can't travel to the skin. If your horse has a tick, first coat it with oil to close the air passages and then re-

move them with tweezers, grasping the tick close to the skin. Drop the tick in rubbing alcohol to kill it without spreading disease.

## Fungi

The last type of external parasite is fungi. There are two fungal infections that affect horses: ringworm and rain rot.

### Ringworm

Ringworm is very contagious to other animals and to you, so care must be used when treating it. The fungus causes a round bare spot with a gray crust. Your veterinarian will suggest the best treatment. Often this is an iodine based liquid or ointment.

### Rain Rot

The second fungal parasite is really a combination of bacteria and fungus. This is rain rot. Rain rot is often first seen on the loin or rump as bumpy or roughed up hair roots. It will develop into crusty patches. Rain rot is most often seen in late summer or early fall, especially when light rains follow a dry spell. If the rain is not heavy enough to clean the hair coat the infection will start in the moisture and dirt which are held in the thicker fall hair coat. The best prevention is regular grooming since dirty, dusty horses are more likely to be affected. Horses infected with rain rot will need penicillin shots as well as skin treatment with ichthammol or an iodine and oil solution. The antiseptic in the ichthammol or iodine will help kill the organism while the oil base softens the crusts and helps the healing process.

## Glossary

Additive	substance added to a product for a special purpose
Allergy	a sensitivity to something
Ectoparasite	a pest that lives outside the horse
Host	an animal that serves as a living home for another organism
Ichthammol	ointment made from a coal tar base which has a soothing, drawing effect
Insect	a six legged, hard shelled bug
Insecticide	a substance that will kill insects
Parasite	an organism that lives on or feeds on the horse and gives no benefit in return
Penicillin	an antibiotic substance made from molds
Pesticide	a substance used to kill pests

Predator	an organism that lives by eating other organisms
Repellent	a substance that insects will avoid
Resistance	the ability to avoid the effects of a substance such as a pesticide

## Develop A Pest Plan

The first step in managing parasites is to develop a pest plan. First, you need to know what parasite problems you have. Walk around areas that relate to your horse. Take an inventory.

- ◆ What parasites do you see?
- ◆ Where did you see a lot?
- ◆ Where didn't you see any?
- ◆ Are the parasites you see larvae or adults?
- ◆ Why do you think they are there?
- ◆ Is there something that attracted them?
- ◆ What is different about areas where you didn't find any?
- ◆ What stable management changes can you make to eliminate gathering spots for these parasites?
- ◆ Are there changes in your routine that will help make your horse more comfortable during these pesky times?
- ◆ Do a follow up check in 2 weeks. Were your efforts successful? Are there other changes you could make?

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