

# Developing A Strategic Parasite Control Plan

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There is no single, effective parasite control program that fits all animal groups. Control measures vary according to age the species of animal, species of parasite (or parasites) and husbandry methods involved. As a result, it is crucial to identify the parasites infesting a particular group of animals so that decisions can be made concerning selection of appropriate anti-parasitic drugs and timing of treatment.

Parasite identification is often accomplished by microscope examination of manure samples, looking for the parasite's eggs. These eggs have characteristic shapes, sizes and contents which allow species recognition. Timing of sample collection can also be critical because some parasites become dormant and stop shedding eggs during certain months or do not produce eggs until they reach a certain stage of development.

### Internal Parasites:

In general, young animals are more susceptible to infection and show more severe effects of infection than do adults. In fact, adults often show no outward signs of internal parasitism. The highest risk groups for round worm or nematode infections are usually those animals grazing pastures and the lowest risk comes to animals in confinement housing. The opposite is generally true for protozoal parasitisms such as coccidia or cryptosporidia.

### Some general considerations for pasture management should be:

1. The safest pastures are areas not previously grazed or grazed by species that do not share the same parasites.
2. Rapid drying and sunlight will kill most parasite eggs and larvae.
3. Some parasite larvae can survive winter weather in a dormant state but will die after the first 4 to 6 weeks of warm weather in the spring. So infection is more likely on spring pasture grazed the previous fall than fall pasture grazed the previous spring.

4. Overgrazing will force cattle to eat plants closer to the ground, thus increasing their chances of contacting and ingesting infective larvae.

5. The higher the animal density on a pasture, the heavier the parasite load tends to be.

### Guidelines for Pastured Animals:

1. Animals should be wormed as they come off pasture in the fall or after a hard frost if they are left on pasture during the winter.
2. Potentially infected adults, calves or youngstock should be wormed prior to being placed on pasture, especially in the spring, to reduce the chance of pasture contamination.
3. Pastured animals should be wormed approximately 4 and 8 weeks after going onto pasture to control infections from newly ingested larvae and prevent subsequent egg shedding onto the pasture.

**Animals in Confinement Housing:** In general, animals raised in confinement are at low risk for nematode infections, but can be exposed to high levels of coccidia and other protozoal organisms. Young animals should be closely monitored through fecal exams for these parasites and placed on prevention or control programs as needed. In addition, control of animal densities and manure contamination/build-up are often essential elements in reducing infection rates.

**Ecto (External) Parasites:** There are a number of external parasites which can create significant problems for livestock. Here again, accurate identification of the parasite or parasites is essential in order to determine which agent will be most effective for treatment as well as what schedule of treatment is required. In some cases, a drug can be selected which will be effective against both the internal and external parasites

affecting the animals and a single, well-timed, dosing will effectively deal with both groups of organisms.

A relatively large number of anti-parasitic drugs are currently available. Not only are there a variety of chemical compositions, about delivery forms as well. Oral, injectable and topical (surface application) agents are available for many species. Some agents remain active in the body for weeks following a

single administration while some require daily dosing for continued protection. Some agents are available in a slow release bolus form, which can provide protection for months. Consultation with your veterinarian will help you decide on the most effective and economical choice for the parasites of concern in your operation.

In summary, strategic parasite control cannot be planned without knowing which para-

sites are involved. This requires a monitoring system to identify and quantify parasite problems as well as measure response to treatment. Control often requires management changes as well as use of anti-parasitic drugs in order to break parasite life cycles and reduce levels of infection in the environment. Close co-operation between producer and veterinarian can improve the effectiveness of any parasite control program.

## Rebate Deadline April 28

HARRISBURG (Dauphin Co.) - Agriculture Secretary Samuel E. Hayes Jr. reminded eligible Pennsylvania farmers that the deadline to claim hay-assistance rebates is April 28.

"Gov. Ridge created this program to help our farmers recover some of the devastating losses brought on by the drought of 1999," Hayes said. "These funds will ease the strain and offer some relief to Pennsylvania's farm families and help to preserve and protect Pennsylvania agriculture's ability to produce food and fiber. But eligible farmers must claim their rebates by April 28."

Gov. Ridge created the \$5 million Livestock Hay Assistance Program in response to last year's drought. eligible dairy and livestock producers already

have been notified that they meet the following hay-assistance requirements:

- Be Pennsylvania residents with farms in Pennsylvania
- Be livestock producers with dairy cows, beef-breeding cows or mature breeding ewes
- Have lost a minimum of 30 percent of the crops intended for livestock feed (including pasture) because of the drought of 1999.

Notified farmers are encouraged to claim their rebates by mailing purchased-hay receipts to the Pennsylvania Department of Agriculture, c/o Hay Assistance, 2301 North Cameron St., Harrisburg, PA 17110-9408. Receipts must be postmarked no later than April 28.

Eligible farmers who pur-

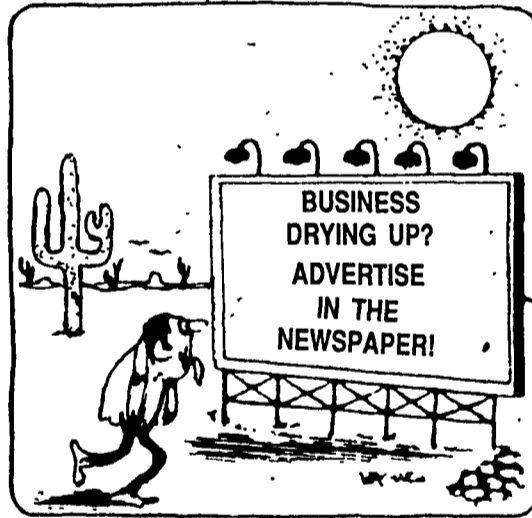
chased hay in Pennsylvania can receive \$60 rebates per ton. This includes hay purchased from Pennsylvania dealer/brokers. If an invoice is payable to a Pennsylvania entity, it is considered Pennsylvania hay, even if it came originally from outside Pennsylvania.

Farmers who purchased hay in New York, New Jersey, Delaware, Maryland, Virginia, West Virginia, or Ohio are eligible for rebates of \$50 per ton if hay was purchased from a state outside of those listed above, farmers are eligible for long-haul assistance.

Long-haul assistance pays eligible applicants a rebate of \$50 per ton of hay, plus an additional \$25 per ton of hay to cover transportation cost. Reimbursement for long-haul assistance will be made only upon submission of documentation verifying the state of purchase and the number of tons of hay purchased from outside those states listed above.

More than 1,500 eligible dairy and livestock producers already have submitted their receipts. The first hay-assistance rebates were received by farmers last December, with an average rebate of approximately \$1,200.

For more information about the program, call the Agriculture Department at (717) 787-4737 or visit Pennsylvania's homepage at [www.state.pa.us](http://www.state.pa.us)



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