



PARASITE MANAGEMENT IN ORGANIC CATTLE PRODUCTION

Guidance

A parasite is an organism that lives in or on another organism (its host) and benefits by deriving nutrients at the expense of the host. Parasites are a common concern for cattle and can cause a variety of medical issues. Parasitic diseases are caused by an infestation of internal parasites, such as roundworms, tapeworms, lungworm, and flukes, or external parasites such as mites, lice, ticks, and flies. The most common transmission of parasites is through direct skin penetration or oral ingestion while on pasture.

ADDITIONAL INFORMATION

SYMPTOMS OF PARASITES

Symptoms of parasites may include:

- Rough hair coat
- Diarrhea
- Emaciation
- Weight loss
- Blood loss
- Hair loss
- Scabs or lumps

BEST MANAGEMENT PRACTICES

It is important to note that proper parasite management practices must be in place prior to being able to use any synthetic parasiticide materials. These management practices may include the following:

- Grazing systems and living conditions that prevent livestock parasite infestations by keeping livestock out of paddocks or pens until the parasites are no longer viable in that area.
- Maintaining forage diversity, height and grazing frequency to lessen transference of parasites during grazing.
- Use of allowed non-synthetic botanicals, biologics and minerals, both internally and externally, to maintain parasite levels in the livestock well below the treatment threshold.

The need to control internal parasites will exist as long as cattle are grazing pastures. However, parasite levels are not the same on all pastures or in all cattle. Pastures that are heavily stocked generally have a higher parasite burden than lightly stocked ones. Young cattle will typically have more internal parasites than older cattle. Therefore, the methods of controlling internal parasites should be developed to fit individual production situations.

Pasture management practices will help to reduce the parasite burden in cattle. Pasture management methods designed to reduce parasite larva populations may include the following:

- Move more susceptible younger cattle to pastures that were not grazed during the last 12 months as well as small grain pastures developed from a prepared seedbed. When a pasture lies untilled and is plowed, contamination can drop quickly.
- Place less susceptible, mature cattle on the more contaminated pastures. Mature cows under a good nutrition program develop some acquired immunity to parasites and are affected less by their presence

than young cattle and calves.

- Do not overgraze pastures. Animals on overgrazed pastures graze closer to the ground and pick up more larvae. Since most of the infective larvae are in the bottom 2 inches of the pasture, manage to leave a 2 to 4-inch residual behind to minimize parasite infection.
- Rotate pastures: this improves the nutrition going into the animals, it improves the pastures, and it can prevent them from grazing too short if done correctly.
- Reduce stock density and graze with multiple species such as goats and sheep.
- Plant a diverse selection of plant species and include some high tannin forages such as birds foot trefoil, yellow dock, curly dock, and chicory.

TREATMENT PRACTICES

It is important to use various monitoring and documentation methods throughout the season to stay informed on the efficacy of your parasite management practices and to work with your veterinarian and certification specialist to determine when an emergency threshold of parasite infestation has been reached. When management practices such as those described above are insufficient to prevent or control parasites within the accepted threshold of that parasite, and for that age of animal and species of animal, a parasiticide included on the National List of synthetic substances allowed for use in organic livestock production may be used as an emergency treatment.

The majority of parasite control products on the market allowed for organic use include the active ingredients fenbendazole or moxidectin. It is important to note that these products include milk withdrawal restrictions and are allowed for use as emergency medical treatments only. All products containing fenbendazole or moxidectin as ingredients contain the following restrictions:

- Must not be administered in the absence of illness. Records must be kept documenting specific animal treated, treatment/dosage used, and duration of treatment. *205.238(b)*
- Prohibited in slaughter stock. Allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be sold as organic for 2 days following treatment of cattle; 36 days following treatment of goats, sheep, and other dairy species. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period for breeding stock. *205.603(a)(23)*

APPROVED INPUTS

All inputs must be reviewed and approved by PCO prior to use, so be sure to check with us or consult a current PCO Approved Materials List, OMRI, or WSDA list prior to purchasing or using a product. PCO does not endorse any of the products listed in this guidance document. This is not an all-inclusive list and other inputs may be allowed. Please contact PCO if you have any questions on materials or restrictions.

The following products must not be administered in the absence of illness. Records must be kept documenting specific animal treated, treatment/dosage used, and duration of treatment. *§205.238(b)*

- **Safe Guard Beef & Dairy Cattle Dewormer Paste 10%** by Intervet/Merck/Schering-Plough and **Safe Guard Medicated Dewormer for Beef & Dairy Cattle 0.5% Alfalfa Based Pellets** by Intervet/Merck/Schering-Plough are prohibited in slaughter stock but allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk

products from a treated animal cannot be sold as organic for 2 days following treatment of cattle; 36 days following treatment of goats, sheep, and other dairy species. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period for breeding stock. 205.603(a)(17)(i)

- **Cydectin Pour On** by Boehringer Ingelheim, Inc. is prohibited in slaughter stock but allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be sold as organic for 2 days following treatment of cattle; 36 days following treatment of goats, sheep, and other dairy species. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period for breeding stock. §205.603(a)(17)(iii)

PCO is not endorsing the efficacy of any of the approved treatments, and producers should work with a trained professional to treat any distressed animals.

RESOURCES

- Internal Parasites In Beef & Dairy Cattle (eXtension.org) [http://articles.extension.org/pages/11022/internal-parasites-in-beef-and-dairy-cattle#Deworming the Dairy Herd](http://articles.extension.org/pages/11022/internal-parasites-in-beef-and-dairy-cattle#Deworming_the_Dairy_Herd)
- Parasitic Diseases of Cattle (Zoetis) <https://www.zoetis.com/conditions/beef/parasitic-diseases-of-cattle.aspx>
- Parasite Prevention Strategies (Sarah Flack Consulting) <http://www.sarahflackconsulting.com/articles/parasite-prevention-strategies>