

## Allowed Medications under the National Organic Program

Do you have any organic farms in your practice? It can be a challenge to remember which medications are allowed to be used to treat organic animals and which are not. We all know that even in the best management systems, animals sometimes get sick. If you are care for animals on an organic farm, it is your responsibility to be aware of which medications are allowed to be used under the National Organic Program Guidelines.

The Code of Federal Regulations (Title 7, part 205) includes an extensive list of synthetic substances that are allowed for use in organic livestock. This article is intended to be a summary of the allowed medications that may be used in caring for organic livestock.

### Preventative medicines.

Contrary to what some people believe, preventative medicines are allowed to be used in organic livestock. *Vaccines can be used in organic livestock.* A limited number of parasiticides (fenbendazole, ivermectin, moxidectin, hydrated lyme, sucrose octanoate esters, and formic acid) may be used under certain conditions. These medications may only be used in dairy and breeder stock animals, and only when their preventative management plan does not prevent an infestation. Fenbendazole can only be used by order of a veterinarian. Moxidectin may only be used for control of internal parasites. Hydrated lyme and sucrose octanoate esters can only be used as topical parasiticides. Formic acid can only be used in honeybee hives. Any chemicals included on the Environmental Protection Agency's list of inert substances of minimal concern may also be used as parasiticides. (The 9 page list can be found here: <http://www.epa.gov/pesticides/biopesticides/regtools/25b/25b-inerts.htm>.)

Parasiticides may never be used in the following groups of livestock: any animal intended for slaughter; breeding stock during the lactation period; and breeding stock during the last third of gestation, if the offspring will be sold as organic.

Some teat dips are allowed in dairy production. Iodine is an allowed teat dip. Glycerine is also an allowed teat dip, as long as it has been produced through the hydrolysis of fats or oils. Chlorhexidine is allowed as a teat dip, but only after other practices have become ineffective.

### Disinfectants.

For disinfecting facilities and equipment, organic farms may use alcohol, chlorine (in calcium hypochlorite, chlorine dioxide, and sodium hypochlorite), peroxyacetic/peracetic acid, and phosphoric acid. Particularly for phosphoric acid, there must be no direct contact with organically managed livestock or land. In medical procedures, alcohol, chlorhexidine, iodine, and hydrogen peroxide may be used.

### Pain management and emergency medications.

For pain management, the only medications allowed in organic production are aspirin, butorphanol, and flunixin. Butorphanol may only be used under the order of a veterinarian. In organic production, it has a 42 day meat withdrawal and an 8 day milk discard. Flunixin can only be used under

its approved labeling. For organic livestock, the withdrawal period should be doubled from what is listed.

Other emergency medications that may be used include atropine, poloxalene, xylazine, and tolazoline. Atropine carries a 56 day meat withdrawal and a 12 day milk discard period. Xylazine has a meat withdrawal of 8 days and a milk discard of 4 days. Tolazoline may only be used to reverse sedation of xylazine, and carries a meat withdrawal of 8 days and a milk discard of 4 days. Poloxalene may only be used for emergency treatment of bloat.

#### **Other allowed medications.**

Even with the best management practices in place, animals sometimes get sick. The following is a list of other medications that are allowed to be used for organic livestock.

- Copper sulfate – topical use only
- Furosemide – only under the approved labeling dose; the withdrawal period must be doubled from that listed.
- Glucose
- Lidocaine – as a local anesthetic; the withdrawal period for meat is 90 days; the discard period for milk is 7 days
- Magnesium hydroxide – only under the order of a veterinarian
- Magnesium sulfate
- Mineral oil – topical use only
- Oxytocin – only in postparturition therapy
- Procaine – as a local anesthetic; the withdrawal period for meat is 90 days; the discard period for milk is 7 days

#### **Feed additives.**

While no feed supplements are allowed in organic production, there are a few feed additives that are approved for use. Electrolytes, without the addition of antibiotics, may be added to feed. Trace minerals and vitamins may be added, as long as the formulation has been FDA approved. DL-methionine, -methionine-hydroxy analog, and DL-methionine-hydroxy analog calcium can be added to feed in organic poultry. The maximum amounts of DL-methionine that can be added to feed are 2 pounds/ton for laying and broiler chickens, and 3 pounds/ton for turkeys and any other poultry.

The National Organic Program rules are complex and detailed. The complete rules can be found in Title 7 of the Code of Federal Regulations, part 205. The entire CFR is available online at <http://www.ecfr.gov> (browse to Title 7, then look for part 205 to find the National Organic Program section).