Practical guide to working with organic farms

M. Hain DVM, CROPP
Organic Valley, Franklin, KY 42135

Abstract

Many veterinary practitioners are initially unwilling to work with organic farms for several reasons, the first being a lack of understanding of the organic rule and discomfort with the restrictions, the second is an anxiety with not being able to use all the medicines and tools typically at their disposal, the third is an unwillingness to work with farms that used alternative treatments, and the fourth is a concern for the welfare of the animals on organic farms. Fortunately, each of these concerns can be answered and for the practitioner who is curious and open-minded working with organic farms can offer both practice benefits and professional growth. This article provides a basic introduction to the United States Department of Agriculture (USDA) National Organic Program (NOP), along with tips to help make treatment decisions on organic farms, and a quick reference table of the basic medications allowed and prohibited under organic regulations. For those veterinarians interested in learning more, there is a list of additional resources included.

Key words: organic, veterinary

Introduction to organics and the USDA national organic program

The philosophy of organic farming is based upon a holistic view of the farm as a natural system. The term holistic simply means the whole, or rather that all parts of a system need to be healthy in order for the system itself to be healthy. The primary goal for organic farmers is to build healthy living soils with symbiotic organisms which then provide more bioavailable nutrients and water retention. Healthy soils in turn lead to more productive and resilient plant and these provide a healthier source of feed for animals and people. This philosophy is the root of most organic practices from the focus on working with nature rather than against it, for understanding the underlying reason for illness as a sign of breakdown in the system which needs to be addressed, and for not using synthetic chemicals which may disrupt living soils, animal microbiomes and healthy balanced systems.[2,5]

While organics started as a farming philosophy, it quickly grew into a value-added market differentiator. Multiple organic certifications arose to define and defend this market difference, but as there were multiple different standards across the country, this just led to confusion. In the late 1980s the organic farming community came together to develop a common national standard which was codified by the Organic Food Production Act, part of the 1990 Farm Bill.[4] This act set up the United States Department of Agriculture (USDA) Organic Certification and label, the National Organic Program (NOP), to be run by the USDA, and the National Organic Standards Board (NOSB), which wrote the organic standards and provides recommendations on program updates to the Secretary of Agriculture. The rules which govern organic farmers, processors and marketers are codified in the USDA Organic Standards which is a regulation and part of the Code of Federal Regulations.[8] Under the regulations, all farms, transporters, processors and marketers need to meet all organic rules and undergo an annual third-party audit by an accredited organic certifier in order to use the USDA Organic Label. The organic certifiers who perform the certification are accredited or overseen by the USDA and audited annually. This process ensures that all parts of the supply chain meet the same practice and processing standards and guarantees all ingredients which go into the final product.

Dairy farmers who wish to be certified organic need to go through a transition period in which any land which is to be certified needs to be free of all prohibited inputs for 3 years. Typically, during the last year, they will begin to transition the animals as well which need to be fed organic feeds and to be free of all prohibited treatments for 1 year. At the end of the transition, the farm will undergo their first third-party organic inspection. For this, they need to present a detailed description of how they manage their farm including all feeds (with labels, receipts and organic certificates), all products used on the land, and all feed and treatments for the animals (including labels and receipts), all acreages used to produce organic feeds and grazing must be recorded and all animals that came in and out of the herd must be accounted for (including organic certificates for purchased animals). All animals over a certain age (6 months for cattle) must have daily outdoor access in the winter, and any exceptions must be recorded (there is an exception for inclement weather). For all farms with ruminant animals, they also need to document that all animals over 6 months are able to graze for at least 120 days during the grazing season, and consume at least 30% of their dry matter intake (DMI) from pasture.[2,9]

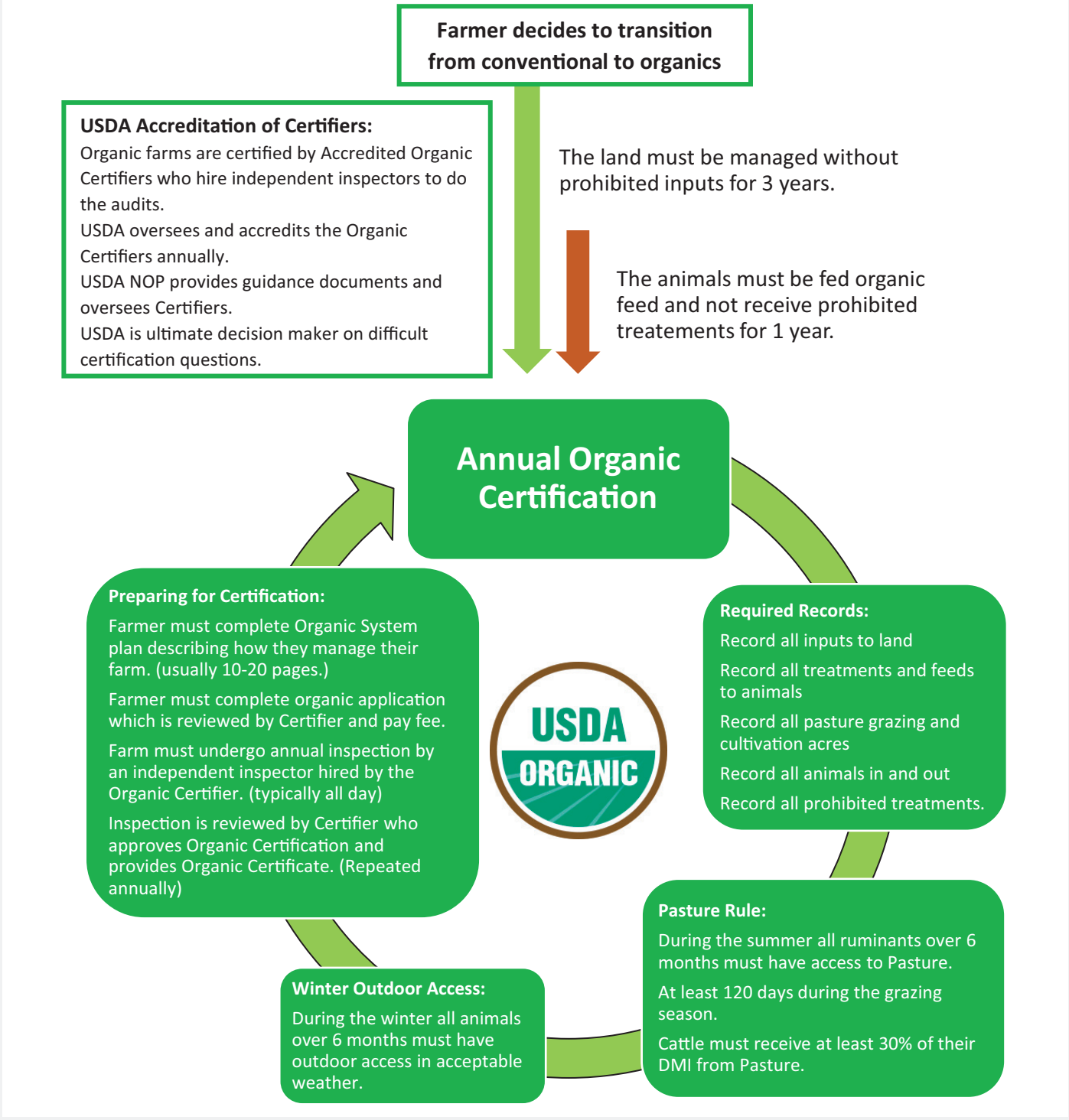
Farms must keep track of all of these records as part of an Organic Systems Plan which describes the management of their farm. These are submitted annually before their organic inspection, and reviewed by their accredited organic certifier. The certifier will then hire an independent auditor who will visit the farm to view all animals, fields and feeds to verify that the documents are correct and that the farm is meeting all the organic regulations. The audit will be summited to the certifier who will review it and either provide an organic certificate or send the farm an on-compliance if any standards are not met. There is a remediation process for farms to address these concerns and to gain certification.

Tips for making treatment decisions on organic farms

Many farmers who transition to organics notice a modest decrease in production and an overall improvement in animal health.[1] As a result of this change, many farms require fewer less veterinary visits for sick animal work.[6] While there may be fewer sick cows, even the best organic farms can benefit from veterinary services for routine herd health work, management advising, training for farmer and staff, written protocols, vaccination schedules, grazing and nutrition advising, records review and occasionally sick cow work.

For veterinarians who are starting to work with organic farms, the first step is to have an open mind. This does not mean abandoning the principles of evidence-based medicine, but rather using that knowledge as the basis for making sound medical judgments. Under the USDA Organic Standards, many of the

Figure 1: The figure outlines the path for dairy farms transitioning to organic and the process of annual certification required to maintain USDA Organic Certification.[9]



typical medications and tools used in dairy practice are prohibited. Those treatments which are prohibited may still be used if needed to save an animal's life or to prevent suffering, but once an animal is treated with a prohibited treatment, it is no longer allowed to be certified organic. Depending upon the value of the animal, the loss of its organic certification can result in a significant financial loss for the farmer. For organic farmers, this is one of their biggest challenges in organics and an area where respectful veterinary guidance could provide a significant value.[1] For practitioners willing to embrace the challenge of working on organic farms, these restrictions can actually help to hone their diagnostic skills and treatment decisions and to improve their focus on understanding and addressing the underlying causes of disease in order to prevent further illness and losses.

To help those veterinarians who are beginning to work with organic farms, the following list provides some basic rules to help

to understand which treatments are allowed and which are not, and to provide some guidance for making decisions.

Basic rule of thumb for making treatment decisions on organic farms:

1. **Natural substances are allowed** (except strychnine).[8] *See Natural Treatments Section*.
2. **Synthetics substances are not allowed, except those petitioned and specifically allowed on National List.[8]** *See Medication Table for references on allowed synthetics*.
3. **When in doubt, ask the farm's Organic Certifier.** *Under the USDA Organic Certification Program: the certifier is responsible for verifying that all products or treatments that go into or onto an organic animal meet the organic standard. As part of this they are allowed to see the ingredients list of most products available on the market, and they have the final say for that farm on whether a product is allowed.[9]*
4. **Welfare Rule: The National Organic Standard specifically states 205.238.c.7:** "Producers are prohibited from withhold medical treatment from a sick animal in an effort to preserve its organic status. All appropriate medications must be used to restore an animal to health when methods acceptable to organic production fail. Livestock treated with a prohibited substance must be clearly identified and shall not be sold, labeled, or represented as organically produced."
   A veterinarian can prescribe a treatment which is prohibited if they feel that it is necessary to prevent death or alleviate suffering (which cannot be adequately alleviated or treated with natural or supportive treatments). However, when a prohibited treatment is used, the animal will lose its organic certification and will need to be sold. So, a veterinarian can prescribe a prohibited medication for welfare purposes, but will need to be confident in their medical judgement in order to justify the recommendation to the owner who will likely be facing a significant financial lose for that animal. See the USDA Organic Standard 7 CFR 205.238 Livestock Health Care Practice Standard for the full language.[9]

In addition, the following reference table is provided which includes the regulatory language for medications which are referenced in the National List,8 and for those which are not specifically referenced, it includes notes based upon the general guidance in the USDA Organic Standard.9 As noted previously in the rule-of-thumb, all-natural products are allowed, except strychnine, and all synthetic products are not allowed except if they have been petitioned to the NOSB and approved by the USDA NOP. All synthetic products which have been allowed are listed in a specific section of the USDA Organic standard which is commonly called the National List.8 This table is meant as a general reference as the USDA NOP regulations are subject to change and is not guaranteed to be accurate beyond the date of publication.

Natural treatments

As noted previously, the USDA Organic Standards allow for the use of natural substances in organic production and for the treatment of animals. Not all organic farms use natural or alternative therapies as some are more likely to rely upon prevention, and if animals do get sick, to cull rather than treat. For those farms that do choose to use alternative therapies, they vary widely in their treatment choices depending on the practitioners they have worked with and their experience and comfort with the treatment modalities. While most of these therapies do not have FDA labels, there is a growing body of research on alternative therapies which can provide evidence for practitioners trying to treatment decisions and recommendations. For those practitioners willing to explore the use of alternative therapies and to make medical inferences based upon the available scientific research, their services and guidance can be invaluable to farmers. By providing basic medical guidance on physical diagnostics, understanding prognosis, providing guidance on making appropriate treatment decisions and determining when additional expertise is needed can be essential in helping organic farmers and in assuring for the health and welfare of their animals.[5]

What follows is a list of the common therapies used along with a basic description of each. For veterinarians considering alternative therapies, there is also a list of additional references which can provide further detail on treatment choice.

1. Biologic:

a. **Vaccinations:** All vaccinations are currently allowed (and encouraged) in organics to prevent disease.
b. **Hyper-immune plasma and serum products:** These products are made from the plasma of cattle which are hyper-immunized for either one or more specific diseases. Blood is drawn then is separated. These products provide passive immunity to specific diseases and are typically given intravenously and occasionally intramuscularly.[7]
c. **Colostral-whey-derived:** These products are produced from the pasteurized colostrum of hyper-vaccinated cows. The product contains antibodies (immunoglobulins) and other immunologically active proteins (lymphokines, cytokines, lactoferrin and enzymes) that attempt to generally stimulate the immune system.[7]
d. **Immunomodulators:** Injectable products which stimulate a non-specific immune response or oral saccharomyces-based products.

2. Botanical: This category includes treatments made from plants. Botanicals are often formulated by using a drawing agent (water, vinegar, alcohol etc) to extracts and concentrate the soluble molecules from the plant (root, bark, leaf, flower, etc.). Botanical medicines have been used for millennia and many modern medicines were derived from botanical medicines which were refined to one active ingredient (ex. aspirin, digoxin). Botanical medicines often have multiple active ingredients. This category includes:

a. **Tinctures:** which use alcohols or vinegar to extract the active ingredients for a plant.
b. **Infusions, decoctions (teas):** which using hot water to extract, like teas.
c. **Essential oils topically:** which are the distillated extraction of a plant's volatile oils. These are used diluted and used topically.
d. **Fresh, dried or preserved plants:** drying, fresh or preserved plants can be mixed and dosed or given orally in a capsule.

3. Homeopathic: homeopathy was developed in Germany 200 years ago and is based on the theory that "like cures like" or that a substance which creates a symptom in a healthy person can be highly diluted and then given to cure that symptom in an ill patient. Homeopathic treatments are specific not just to the symptom, but to the whole patient, including mood and personality traits. In my experience with organics, I have not found any evidence to support this modality.

a. **Nosodes:** nosodes are a sort of homeopathic vaccination made from a highly diluted sample of disease (organ tissue, excretion, etc). These products are typically given before an anticipated illness like a vaccination. There is no scientific evidence supporting nosodes over vaccinations.

4. Acupuncture: Acupuncture is an ancient Chinese medical practice involving the insertion of tiny needles at specific acupuncture points in order to stimulate the body's energetic pathways.

Also remember supportive therapies such as fluids, electrolytes, drenches, vitamins, minerals and NSAIDS, which are approved for use in organics and good nutrition and nursing care are recommended to support an animal's treatment and recovery.

Additional resources:

- Biogotti, Paul. *Practical Organic Dairy Farming*. Fort Atkinson, WI: W.D. Hoards and Sons Company, 2016.
- de Bairacli Levy, J. *The Complete Herbal Handbook for Farm and Stable*. London, UK: Faber and Faber, 1991.
- Dettloff, P. *Complete Guide to Raising Animals Organically*. Greeley, CO: Acres USA, 2019.
- Karreman, H. *The Barn Guide: to Treating Dairy Cows Naturally*. Austin, TX: Acres U.S.A., 2011.
- Mendenhall, Katherine. *The Organic Dairy Handbook: A Comprehensive Guide for the Transition and Beyond*. Titusville, NJ: Northeast Organic Farming Association, 2009.
- Sheaffer, C.Er. *Homeopathy for the Herd: A Farmer's Guide to Low-cost, Non-toxic Veterinary Care for Cattle*. Austin, TX: Acres U.S.A., 2003.
- Verkade, T. *Homeopathic Handbook for Dairy Farming*. Hamilton, New Zealand: Homepathic Farm Support Ltd., 2001.
- Wynn, S. and B. Fougere. *Veterinary Herbal Medicine*. St. Louis, MO: Mosby-Elvesier, St. 2007.
- **https://eorganic.info/** –Extension publications focused on organic practices and research.
- **https://www.ams.usda.gov/rules-regulations/organic** – link to background and specific Organic Rules and Regulations.
- **https://www.usda.gov/topics/organic** – general list of organic references.
- **https://www.ams.usda.gov/rules-regulations/organic/national-list** – link to the "National List" which is the list of all allowed and specifically prohibited products for organic production.
- **www.omri.org** – Organic Materials Review Institute, which is a great source for information on where a specific input is allowed in organic production.

Conclusion

The purpose of this article is to provide a basic understanding of the USDA Organic Standards and the regulations which organic dairy farms have to meet and to help veterinarians who are starting to work with organic farms to understand how to work within the restrictions. The guide to alternative therapies is simply an introduction with resources provided for those practitioners who wish to learn more. As veterinarians become for comfortable working with organics, most will realize that the goals are the same as on any farm, to improve animal health and welfare. If they are lucky enough to work with a truly proficient organic farmer they may also learn how rewarding it can be to see a farming system which does indeed meet the organic ideal and work in harmony.

References

1. Brock C.C., Pempek J. A. Jackson-Smith D. et al. Organic dairy producer experiences and decisions related to disease prevention and treatment. *J Dairy Sci* 2021. 104. 5867–5880.

2. Coffey, Linda; Baier, Anne H. *Guide for Organic Livestock Production*. *USDA*. 2012. **www.ams.usda.gov/nop**

3. Karreman Hubert J., Fulwider Wendy. Animal Wellbeing on Organic Farms. Grandin, Temple ed. *Improving Animal Welfare: A Practical Approach. 3rd ed.* Boston: CABI. 2020.

4. Organic Foods Production Act of 1990. **https://www.congress.gov/bill/101st-congress/senate-bill/2108?s=1&r=54** Accessed September 18, 2021

5. Rodale Institute: Our Story. **https://rodaleinstitute.org/about/our-story/** Accessed September 18, 2021.

6. Stiglbauer K.E, Cicconi-Hogan K.M., Richert R., Schukken Y.H., Ruegg P.L., Gamroth M. Assessment of herd management on organic and conventional dairy farms in the United States. *J Dairy Sci* 2013. 96. 1290-1300.

7. Tikofsky L. Organic Dairy Herd Health: Alternative and Complementary Treatment and Medicines. **https://eorganic.org/node/7997** eOrganic, 2013.

8. USDA National List: Synthetic substances allowed for use in organic livestock production. **https://www.ecfr.gov/current/title-7/subtitle-B/chapter-I/subchapter-M/part-205/subpart-G/subject-group-ECFR0ebc5d139b750cd/section-205.603** Accessed July 10, 2021.

9. USDA Organic Standard. Code of Federal Regulations: Title 7, Subtitle B, Chapter I, Subchapter M, Part 205. **https://www.ecfr.gov/current/title-7/subtitle-B/chapter-I/subchapter-M/part-205?toc=1** Accessed September 18, 2021.

Table 1: The table is adapted from the National List 7 CFR 205.603 and National Organic Standard 7 CFR 205.238 Animal Health. This list is subject to change by the USDA NOP and is not guaranteed beyond this date and meant as a general guide.

Medications allowed and prohibited: Adapted from the National List and National Organic Standard[8, 9]				
Substance	**NOP Designation: Allowed/ prohibited/ provisional** **No NOP designation: check with certifier/ not allowed** (synthetic which have not been specifically petitioned)	**National Organic Standards citation** (if applicable)	**Specific language quoted from the National List on uses and restrictions** **(NOTES: General notes not from NOP but meant to provide the additional detail are in italics)**	**Specific withdrawals if listed** (otherwise label withdrawal applies)
General medications				
Antibiotics	PROHIBITED	205.283.c.7	All categories and formulations of antibiotics are prohibited in organic production, if an animal must be treated with an antibiotic, they will lose their organic certification and have to leave the organic production chain. However, **NOP 205.238.c.7:** Producers are prohibited from withhold medical treatment from a sick animal in an effort to preserve its organic status. All appropriate medications must be used to restore an animal to health when methods acceptable to organic production fail. Livestock treated with a prohibited substance must be clearly identified and shall not be sold, labeled, or represented as organically produced.	
Atropine	Allowed	205.603.a.3	Federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Must have veterinary prescription.	Meat 56 days Milk 12 days
Activated Charcoal	Provisional	205.603.a.6	Must be from Vegetative sources	
Calcium Borogluconate	Provisional	205.603.a.7	For treatment of milk fever only	
Calcium Propionate	Provisional	205.603.a.8	For treatment of milk fever only	
Dextrose	Check with the Certifier		*Glucose is allowed, dextrose is generally allowed but not specifically allowed so it is best to ensure the particular formulation is approved.*	
Electrolytes	Provisional	205.603.a.11	*Without antibiotics. For oral electrolytes check with the certifier to ensure that there are not secondary ingredients which are prohibited.* *Note: Re-sorb is not allowed due to prohibited ingredients.*	

Table 1: Continued

Fluids	See Nutritive Supplements			
Furosemide	NOT ALLOWED		Synthetic not allowed. Not petitioned.	
Glucose	Allowed	205.603.a.13	Allowed	
Kaolin Pectin	Allowed	205.603.a.17	For use as an absorbent, antidiarrheal, and gut protectant.	
Magnesium Hydroxide	Allowed	205.603.a.18	Federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires use by or on the lawful written order of a licensed veterinarian.	
Magnesium Sulfate	Allowed	205.603.a.19	Allowed	
Injectable Mineral	See Nutritive Supplements			
Mineral Oil	Allowed	205.603.a.20	For treatment of intestinal compaction, prohibited for use as a dust suppressant.	
Monensin	NOT ALLOWED		*Synthetic not allowed. Not petitioned*	
Nutritive supplements (Vitamins, Minerals, Fluids, Electrolytes)	Allowed	205.603.a.21	Injectable supplements of trace minerals per paragraph (d)(2) of this section, vitamins per paragraph (d)(3), and electrolytes per paragraph (a)(11), with excipients per paragraph (f), in accordance with FDA and restricted to use by or on the order of a licensed veterinarian. *Injectable Fluids, Electrolytes, Vitamins and Mineral are allowed, including: CMPK, Fluids, Mu-Se, Bo-Se, Multi-min and injectable Vitamins (Check with organic certifier for new formulations)*	
Bismuth Subsalicylate	NOT ALLOWED		*Synthetic not allowed. Not petitioned.*	
Poloxalene	Provisional	205.603.a.26	For use under 7 CFR part 205, the NOP requires that poloxalene only be used for the emergency treatment of bloat.	
Propylene Glycol	Provisional	205.603.a.27	Only for treatment of ketosis in ruminants	
Steroids	PROHIBITED	205.238.c.3	No synthetics or hormones are allowed	
Tripelennamine	NOT ALLOWED		Synthetic not allowed. Not petitioned.	

Table 1: Continued

Vitamins	See Nutritive Supplement			
Analgesics				
Aspirin	Allowed	205.603.a.2	Approved for health care use to reduce inflammation.	
Flunixin	Allowed	205.603.a.12	In accordance with approved labeling; except that for use under 7 CFR part 205, the NOP requires a withdrawal period of at least two-times that required by the FDA. *Check with the Organic Certifier before the use of pour-on formulations.*	Double label withdrawal time
Meloxicam	NOT ALLOWED		*Synthetic not petitioned yet.*	
Sedatives/Anesthetics/Local Anesthetics				
Acepromazine	NOT ALLOWED		*Not allowed. Not petitioned.*	
Butorphanol	Provisional	205.603.a.5	Federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Must have veterinary prescription.	Meat 42 days Milk 8 days
Diazepam	NOT ALLOWED		Not allowed. Not petitioned.	
Ketamine	NOT ALLOWED		Not allowed. Not petitioned.	
Lidocaine	Provisional	205.603.b.5	As a local anesthetic. Use requires a withdrawal period of 8 days after administering to livestock intended for slaughter and 6 days after administering to dairy animals.	Milk: 6days Meat: 8 day
Procaine	Provisional	205.603.b.8	As a local anesthetic. Use requires a withdrawal period of 8 days after administering to livestock intended for slaughter and 6 days after administering to dairy animals.	Milk: 6 day Meat: 8 day
Tolazoline	Provisional	205.603.a.29	Federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires veterinary prescription. Use only to reverse Xylazine.	Meat: 8 days Milk: 4 days
Xylazine	Provisional	205.603.a.30	Federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires Veterinary prescription.	Meat: 8 days Milk: 4 days
Hormones				
Oxytocin	Provisional	205.603.a.22	Use in post parturition therapeutic applications. *Note: several organic milk companies do not allow the use of oxytocin.*	

Table 1: continued

Epinephrine	Check with Certifier		*The NOSB does not provide guidance on this medication, but it is generally accepted. The general rule is to check with the farm's organic certifier. The recommendation since this is an emergency drug would be to use it if needed to save an animal life and then notify the certifier after the fact to gain guidance.*	
All other Hormones	PROHIBITED	205.237.b.1 205.238.c.3	The producer of an organic operation must not use animal drugs, including hormones to promote growth. *Specifically prohibited.*	
Vaccinations				
Biologics--Vaccinations	Allowed	205.603.a.4	Currently all vaccination are allowed with no restrictions. *Note: The NOSB is currently debating if vaccinations made using restricted methods should be restricted.*	
Parasiticides				
Parasiticides		205.603.a.23	Prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. 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. Allowed for fiber bearing animals when used a minimum of 36 days prior to harvesting of fleece or wool that is to be sold, labeled, or represented as organic.	Milk: 2 days Fiber: 36 day withdrawal. Meat: Not allowed in organic meat animals
Albendazole	NOT ALLOWED		Not Allowed. Not petitioned.	
Fenbendazole	Provisional	205.603.a.23.i	Milk or milk products from a treated animal cannot be labeled as provided for in subpart D of this part for: 2 days following treatment of cattle; 36 days following treatment of goats, sheep, and other dairy species.	Milk: 2 days Fiber: 36days
Ivermectin	PROHIBITED	205.105.a	*Specifically prohibited.*	
Moxidectin	Provisional	205.603.a.23.ii	Milk or milk products from a treated animal cannot be labeled as provided for: 2 days following treatment of cattle; 36 days following treatment of goats, sheep, and other dairy species.	Milk: 2 days Fiber: 36 days
Praziquantel	NOT ALLOWED		Not Allowed. Not Prohibited.	
Topical Treatments		205.603.b.		
Copper Sulfate	Allowed	205.603.b.1	Allowed	
Elemental Sulfur	Allowed	205.603.b.2	For treatment of livestock and livestock housing.	
Formic acid	Provisional	205.603.b.3	For use as a pesticide solely with honeybee hives	
Glycerin	Provisional	205.603.a.14	Allowed as a livestock teat dip, must be produced through the hydrolysis of fats or oils.	
Iodine	Provisional	205.603.b.4	Allowed	

Table 1: Continued

Lime, hydrated	Provisional	205.603.b.6	As an external pest control, not permitted to cauterize physical alterations or deodorize animal wastes.	
Mineral Oil	Allowed	205.603.b.7	For topical use and as a lubricant.	
Sodium Chlorite, acidified	Allowed	205.603.b.9	Allowed for use on organic livestock as teat dip treatment only	
Sucrose octanoate	Allowed	205.603.b.10	In accordance with approved labeling.	
Zinc Sulfate	Allowed	205.603.b.11	For use in hoof and foot treatments only.	
Disinfectants				
Alcohol	Allowed	205.603.a.1.i	As disinfectants, sanitizer, and medical treatments as applicable.	
Chlorine materials	Provisional	205.603.a.10	Disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act. Chlorine Dioxide, Hypochlorous acid, Sodium Hypochlorite,	
Ethanol	Allowed	205.603.a.1.ii	Disinfectant and sanitizer only, prohibited as a feed additive.	
Hydrogen Peroxide	Allowed	205.603.a.15	Allowed	
Iodine	Allowed	205.603.a.16	Allowed	
Isopropanol	Allowed	205.603.a.1.iii	Disinfectant only	
Chlorhexidine	Provisional	205.603.a.9	For medical procedures conducted under the supervision of a licensed veterinarian. Allowed for use as a teat dip when alternative germicidal agents and/or physical barriers have lost their effectiveness.	
Peroxyacetic/ Peracetic acid	Allowed	205.603.a.24	For sanitizing facilities and processing equipment	
Phosphoric acid	Provisional	205.603.a.25	Allowed as an equipment cleaner, *Provided*, That, no direct contact with organically managed livestock or land occurs.	
Sodium Chlorite, acidified	Provisional	205.603.a.28	Allowed for use on organic livestock as a teat dip treatment only.	
Feed Additives		206.603.d		
DL-Methionine, DL-Methionine	Provisional	206.603.d.1	For use only in organic poultry production at the following pounds of synthetic 100 percent methionine per ton of feed in the diet, maximum rates as averaged per ton of feed over the life of the flock: Laying chickens—2 pounds; broiler chickens—2.5 pounds; turkeys and all other poultry—3 pounds.	
Trace Minerals	Allowed	206.603.d.2	Used for enrichment or fortification when FDA approved.	
Vitamins	Allowed	206.603.d.3	Used for enrichment or fortification when FDA approved.	
Additional Notes:				
•	Inactive Ingredients: excipient and inactive ingredient rule they are allowed if they are approved for use by USDA, FDA, APHIS and EPA but not if they are specifically prohibited by the NOP. When in doubt check with the certifier.			
•	Many Organic Certifiers keep a list of products approved for use in organics and some will share it with farmers. There is also the Organic Material Review Institute (OMRI) which approves and label products as safe to use in organic production.			
•	A great additional source for info: www.omri.org Use the Search function at the top right to look up medication by name, and it lists all and any reference in the organic standard.			

