

## **ENSURING COMPREHENSIVE ORGANIC LIVESTOCK STANDARDS**

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### **Purpose and Scope**

Organic livestock standards have proven more difficult to elaborate than for crops, in large measure because of disagreements related to animal health and welfare. There are considerable differences among the livestock standards in use today, and several comparisons have been made of how several of the most prominent standards treat various topics (e.g., Schmid [2002]; Padel *et al.* [2004]). We have complemented this work with a systematic examination of which health and welfare areas are covered by a wider range of organic programs as well as several non-organic livestock organizations.

This paper presents a compilation of animal health and welfare topics that are covered by some but not all the standards studied. Our goal is not to judge the various standards, but to present the breadth of issues deemed important by one or more significant organizations. This may assist those seeking to elaborate organic standards by prompting consideration of potential topics for inclusion, and may alert trading partners to potential conflicts.

### **Methods**

We reviewed seven sets of organic standards or guidelines (Table 1) as well as recommendations of an advisory committee to the US Dept. of Agriculture. Recognizing that concern for animal health and welfare is not confined to the organic sector, we also examined standards and guidelines of six US trade associations, professional societies, or certifying organizations not specifically concerned with organic production but whose focus is livestock well-being.

If a topic is covered by all the organic standards, we do not discuss in detail the different ways it is covered; thus we do not get into several controversies (e.g., differing prohibitions on amino acids in feed). Because organizations structure their standards differently, we had to exercise some judgment in combining them. As a result, the parenthetical lists of organizations covering an issue may not be fully inclusive, but the full range of issues still is displayed. Similarly, some organizations may consider certain requirements implicit in more general requirements, while others articulate them explicitly. Finally, we do not distinguish requirements (the producer “shall” or “must”) from recommendations (the producer “should”), although the distinction is critical for regulators and trade negotiators.

### **Standards Applicable to More Than One Class of Animal**

#### ***Breeding and reproduction***

*Breeding goals.* Goals in choosing breeds and breeding stock within the breed include:

- resistance to diseases, parasites, or foot problems (NOP, EU, Codex, SA, BioGro); eventual elimination of vaccinations (BioGro)
- longevity (NOSB)
- preference for indigenous breeds and breeds adapted to local conditions and organic production systems (NOP, EU, IFOAM, Codex, SA, BioGro)
- non-need for mutilations (IFOAM)

*Natural reproduction.* EU, IFOAM. Codex, KRAV, SA, Bio-Gro prohibit embryo transfer, and prohibit or limit induced ovulation and birth. EU, KRAV, and BioGro explicitly permit artificial insemination.

*Brought-in animals.* Only a few organic standards declare a preference for closed herds; two put quantitative limits on animals that may be brought in (KRAV, SA).

Table 1. Standards, guidelines, and recommendations analyzed.

| Organic Standards and Recommendations                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BioGro:</b> <i>BioGro NZ Organic Standards.</i> BioGro New Zealand, Inc., Wellington. <a href="http://www.Bio-Gro.co.nz">www.Bio-Gro.co.nz</a>                                                                                                                                                                                                                                                   |
| <b>Codex:</b> <i>Codex Alimentarius - Organically Produced Foods.</i> FAO and WHO, Rome, 2001. <a href="http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/Y2772E/Y2772E00.HTM">www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/Y2772E/Y2772E00.HTM</a>                                                                                                                         |
| <b>EU:</b> <i>Council Regulation (EC) No 1804/1999 of 19 July 1999; supplementing Regulation (EEC) No 2092/91 so as to include livestock production. Official Journal of the European Communities, L222/1 - L222/28.</i> <a href="http://europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_222/l_22219990824en00010028.pdf">europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_222/l_22219990824en00010028.pdf</a> |
| <b>IFOAM:</b> <i>IFOAM Basic Standards for Organic Production and Processing; approved by the IFOAM General Assembly, Victoria, Canada, August 2002.</i> International Federation of Organic Agriculture Movements, Bonn, Germany.                                                                                                                                                                  |
| <b>KRAV:</b> <i>KRAV Standards - July 2004.</i> KRAV, Uppsala, Sweden. <sup>1</sup> <a href="http://arkiv.krav.se/arkiv/regler/Standards2004EditionJuly.pdf">arkiv.krav.se/arkiv/regler/Standards2004EditionJuly.pdf</a>                                                                                                                                                                            |
| <b>NOP:</b> <i>National Organic Program Final Rule.</i> US Department of Agriculture, Washington, DC, December, 2002. <a href="http://www.ams.usda.gov/nop/NOP/standards.html">www.ams.usda.gov/nop/NOP/standards.html</a>                                                                                                                                                                          |
| <b>NOSB:</b> <i>National Organic Standards Board, recommendations to the US National Organic Program and records of meetings.</i> <a href="http://www.ams.usda.gov/nosb/index.htm">www.ams.usda.gov/nosb/index.htm</a>                                                                                                                                                                              |
| <b>SA:</b> <i>Soil Association Organic Standards.</i> Soil Association, Bristol, UK. <sup>1</sup>                                                                                                                                                                                                                                                                                                   |
| <b>Additional Standards/Guidelines from Non-organic Organizations<sup>2</sup></b>                                                                                                                                                                                                                                                                                                                   |
| <b>ACC:</b> <i>Animal Care Certified (laying hens only).</i> United Egg Producers. <a href="http://www.uepcertified.com/docs/2005_UEPAnimal_welfare_guidelines.pdf">www.uepcertified.com/docs/2005_UEPAnimal_welfare_guidelines.pdf</a>                                                                                                                                                             |
| <b>AMI:</b> <i>American Meat Institute. Recommended Animal Handling Guidelines and Audit Guide 2005 ed.</i> <a href="http://www.animalhandling.org/guidelines/2005RecAnimalHandlingGuidelines.pdf">www.animalhandling.org/guidelines/2005RecAnimalHandlingGuidelines.pdf</a>                                                                                                                        |
| <b>AVMA:</b> <i>American Veterinary Medical Association. Animal welfare position statements.</i> <a href="http://www.avma.org/issues/policy/animal_welfare/default.asp">www.avma.org/issues/policy/animal_welfare/default.asp</a>                                                                                                                                                                   |
| <b>CH:</b> <i>Certified Humane.</i> <a href="http://www.certifiedhumane.org/documentation.asp">www.certifiedhumane.org/documentation.asp</a>                                                                                                                                                                                                                                                        |
| <b>NIAA:</b> <i>National Institute for Animal Agriculture (primarily swine).</i> <a href="http://animalagriculture.org/pamphlets/pamphlets.asp">animalagriculture.org/pamphlets/pamphlets.asp</a>                                                                                                                                                                                                   |
| <b>NPB:</b> <i>National Pork Board. Swine Care Handbook, 2002.</i> <a href="http://www.porkboard.org/SwineCareHandbook/default.asp">www.porkboard.org/SwineCareHandbook/default.asp</a>                                                                                                                                                                                                             |

<sup>1</sup>European Union member countries' standards must be compatible with the EU regulation, but are allowed some flexibility in applying it, and may impose additional requirements.

<sup>2</sup>These are shown as covering a given item only when it was not also covered by at least two organic standards.

### ***Health care***

All organic standards state that sick animals must be treated, even if this means loss of organic status; they all restrict or prohibit the use of various kinds of medicines, especially antibiotics; and they all say at least something about alterations and mutilations (although some only restrict how they are to be done, while others itemize by species those that are allowed or prohibited). Additional points include the following:

- The producer must work to reduce cases of non-ambulatory animals caused by poor management (AVMA); recurrent injuries must be avoided (CH); and the cause of deaths must be investigated (CH).
- Caretakers must be proficient and knowledgeable (CH, NPB, NIAA).
- Disease prevention should be based on diet and exercise (IFOAM, EU, Codex).
- There should be a herd health plan (SA, BioGro, NPB, CH).
- Persistence of problems caused by a poor environment may be grounds for decertification (KRAV).
- The herd should be inspected regularly (EU, SA).
- Brought-in animals should be quarantined (SA, BioGro); long-term linkages should be established with farms that animals are bought from or sold to (SA).
- Treated animals should be marked accordingly (SA).
- Animal marking should use the least painful and stressful methods (EU, KRAV, SA).
- Homeopathic and other complementary/alternative methods are encouraged, or at least permitted (IFOAM, EU, SA, BioGro).
- Hormonal treatments are allowed but restricted (EU, Codex, SA).
- Parasiticides are allowed but restricted (NOP, Codex, SA).

### ***Feeding***

All organic standards require meeting each animal's nutritional needs, severely restrict feeds of animal origin, prohibit growth promoters in feed, restrict vitamin and mineral supplements, prohibit/restrict feeding of pure amino acids, establish preferential or exclusive use of organic feeds, or require access to pasture and roughage (at least for ruminants). However, they differ substantially regarding more detailed aspects of feeding:

#### ***Allowed/prohibited feeds:***

- Feeding of manure, urea, or other non-protein nitrogen is prohibited (NOP, IFOAM, Codex, KRAV, SA, BioGro).
- Silage preservatives are restricted (IFOAM, EU, Codex, KRAV, SA, BioGro).
- Heavy metal analysis of purchased feeds should be requested (KRAV).

#### ***Feeding practices:***

- Feeding must permit expression of natural behavior (IFOAM, SA).
- Young mammals must get colostrum and milk (if not maternal milk, preferably organic milk from their own species) (IFOAM, EU, Codex, KRAV, SA, BioGro).
- A minimum weaning age is specified, quantitatively or qualitatively (IFOAM, EU, KRAV, SA).
- Ruminants should not be fed silage exclusively (IFOAM, Codex).
- Diets should not be changed suddenly (SA, CH).
- Micronutrient deficiencies should be handled by pasture management (BioGro).

- There should be a plan to reduce the use of feed additives (BioGro).
- Excessive nitrate in feed crops should be avoided (BioGro)
- All standards call for access to pasture, but some only for mammals (EU), herbivores (Codex), or ruminants (NOP); some specify that maximum use be made of pasture (EU), that pasture should be the preferred feed (BioGro), or that pasture provide at least a specified proportion of the diet (KRAV) or at least a significant portion (NOSB).

### ***Housing and handling***

- Herd animals should be kept in groups that permit social behavior, but without bullying from mixed sizes (IFOAM, Codex, KRAV, BioGro).
- Essential equipment must be inspected regularly (EU, SA).
- Bedding materials are restricted, either for all animals (EU, SA), or for those that routinely consume their bedding (NOP).
- Building materials must be safe (IFOAM, EU, SA, BioGro).
- Minimum space per animal is stated qualitatively (adequate for the animal to exercise and perform its natural behavior) (NOP, Codex, IFOAM, EU) or quantitatively (EU, KRAV, SA).
- Air quality must meet qualitative (NOP, IFOAM, EU, BioGro) or quantitative limits (CH); the ventilation system must have an alarm in case of failure, and a backup system (EU, KRAV); ventilation should be designed to reduce transmission of diseases (NPB).
- Lighting should be adequate and of the appropriate type (IFOAM, EU); animals must have access to daylight (NOP, IFOAM, EU, Codex, KRAV).
- There must be a separate area for sick animals (BioGro, CH, NPB); non-ambulatory animals must have access to feed and water (CH, NIAA).
- Use of slatted floors limited (EU, Codex, KRAV).
- Materials for pest control (EU, SA) and cleaning (EU, BioGro) are restricted.
- Tethering is restricted or prohibited (EU, Codex, KRAV, SA).
- Animals must be allowed to feed in groups, with equal access to feed (EU, SA).
- There should be a manure management system (NOSB, NPB).

### ***Transport and slaughter***

Some standards do not cover these areas at all. Those that do all specify that electric prods, tranquilizers, or stimulants may not be used to control animals, and that stress and bullying must be minimized. Standards often go into great detail. Some major points include:

- Animals must be in condition to endure transport (SA, BioGro).
- Provision must be made for non-ambulatory or sick animals (AMVA, AMI, NIAA).
- Length of transport should be minimized, or kept below a specified limit (IFOAM, Codex, KRAV, SA, BioGro).
- Adequate food and water must be provided during transport and while being held for slaughter (IFOAM, KRAV, SA, BioGro).
- In transport and at the slaughterhouse, animals must be kept in appropriate groups (IFOAM, KRAV, SA, BioGro)

### ***Species-specific Standards***

Besides these general requirements and recommendations, all standards include species-specific elements. Some obviously apply to just one animal category (e.g., restrictions on in-

duced molting in laying hens); others reflect application of a more general principle to a particular species (e.g., provision of wallows for pigs as an application of the general requirement to maintain appropriate temperature).

### ***Cattle (dairy or beef)***

- Bulls should be chosen to reduce calving difficulties (NIAA); calving aids are restricted (CH); outdoor calving is preferred (SA); calves should not be weaned until they are eating enough starter and should not be put into social groups while weaning (CH).
- The use of milk substitutes is restricted (KRAV, SA).
- Use of individual boxes for calves is restricted (EU, Codex, KRAV, SA).
- First-calf beef heifers should be kept separately so they can be monitored (CH).
- To avoid inappropriate behavior and stress, there should be devices to reduce inappropriate suckling among calves; calves from different sources should not be mixed; calves must not be muzzled (CH).
- Calves below a specified age (CH) and cows in calf beyond a specified time (SA) must not be transported.
- There must be a specified minimum space per animal for grazing (BioGro), loafing (CH), and exercise (EU, KRAV); freestalls must have adequate space and bedding (CH); exercise areas and feedlots must not have excessive mud (CH).
- The diet must not contain less than a specified proportion of roughage (or more than a specified proportion of concentrates) (EU, KRAV, SA); the fiber in the diet must be of quality and length to prevent acidosis, and calves must get sufficient fiber to allow rumination (CH).
- Cattle must be fed for full health over their lifespan (CH).
- Cattle must be monitored for lameness, foot problems, and body condition (CH).

### ***Poultry (laying hens or meat chickens)***

- Cages are prohibited (Codex, EU, KRAV, SA).
- There must be adequate perches and nesting boxes (EU, Codex, KRAV, SA) and an opportunity to dust bathe (KRAV, BioGro); the environment should be enriched, e.g. with straw or hay, to keep the birds active (CH).
- Birds must have a specified minimum space, expressed quantitatively or enough for their natural behavior (IFOAM, EU, Codex, KRAV, SA, BioGro).
- Birds must have access to insoluble grit or coarse calcium (SA, CH) and roughage (EU, Codex).
- Use of outdoor runs should be encouraged, e.g. by adequate openings, vegetation, and outdoor protection (EU, Codex, KRAV, SA, BioGro); the grazing area must include a grassed area and provide an opportunity for activity (KRAV, BioGro).
- Layers should not be force-molted by feed withdrawal (ACC, CH).
- Chosen breeds should be less prone to aggressiveness and feather-pecking (ACC, CH).
- There should be a health plan that gets modified if its goals are not met (CH).
- There must be a maximum length of artificial lighting and a minimum length of darkness (IFOAM, EU, KRAV, BioGro).
- Flock size may be limited (EU, SA); flock size may have to be reduced if there is excessive cannibalism and feather-pecking (CH) or any welfare problems (SA).
- Work routines should be developed and followed that reduce fear (CH).

- Catching methods are restricted (CH); the catchers must be trained (ACC, CH).
- Heat stress during transport must be avoided, mortality above a specified level during transport must be investigated, and the birds' condition should routinely be assessed at the slaughterhouse (CH).
- After each batch, the house must be emptied and the vegetation allowed to regrow (EU, Codex, SA).
- There is a minimum age for slaughter of meat chickens (EU, SA).
- Meat chickens must get cereal during fattening (EU, Codex, KRAV, BioGro).

### **Swine**

- Pigs should get some roughage in their daily ration, according to most standards; KRAV and SA require that they have access to growing green food.
- Piglets should have access to soil for iron (KRAV).
- Sows must be fed adequately to maintain their body condition, full health, and reproductive capacity throughout their lives (CH, NPB).
- Traditional farrowing crates are prohibited (SA; CH); the farrowing arrangement must offer piglets protection from being crushed (CH).
- All cages are prohibited (KRAV); IFOAM and Codex prohibit cages for pigs in particular.
- There should be a plan to reduce fighting among pigs (SA); measures to reduce fighting include appropriate groupings and isolation of aggressive animals (EU, NIAA) and altering the feeding system and reducing the animal density (CH).
- Pigs should be given areas for dunging and rooting (EU, Codex, KRAV).
- Farrowing huts should be rotated for parasite control (NPB).
- Noise should be minimized in production (especially farrowing), handling, and transport (KRAV, AMI, NPB).
- Pigs should be provided with wallows or other coolers (KRAV; CH, NIAA).

Several non-organic organizations recommend measures not covered in the organic standards:

- appropriate flooring for handling and driving areas (NIAA)
- special attention to high temperature when transporting pigs (AMI)
- rest for pigs showing Porcine Stress Syndrome during transport (NIAA)
- reducing abnormal/stereotypic behavior by enriching the pigs' environment, particularly by giving them an opportunity to forage (CH)
- minimizing close confinement (CH)

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