# ANIMAL WELFARE ON ORGANIC FARMS

# GUIDANCE FOR ORGANIC DAIRY CATTLE

The ECOA Animal Welfare Task Force (AWTF) has reviewed the Canadian standards for organic production (CAN/CGSB 32.310-2006 Organic Production Systems General Principles and Management Standards) and provided additional guidance for the optimal welfare of dairy cattle in the context of the standard. The information provided is based on best management practices outlined in various animal welfare standards and in published research on animal welfare and organic systems of production.

The numbering refers to the specific paragraph numbers in the 2008 amended version of CAN/CGSB 32-310-2006

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#### 6. Livestock Production

## 6.2 Origin of livestock

Paragraph 6.2.3 states that animals purchased for breeding must be from organic enterprises, but non-organic breeding stock can be brought onto the farm and integrated into the herd if organic stock is not available.

### Guidance

Animals should not be purchased from auctions, in order to prevent disease transmission.

## 6.4 Livestock Feed

Paragraph 6.4.3 requires that specific rations for young animals take into account the need for natural milk as well as colostrum within the first day of life.

#### Guidance

Calves should be fed using artificial teats to facilitate natural behaviour. (2) They should be fed at least 20% of their body weight per day as milk. Colostrum should be bottle fed, even if the calves suckle from the cow, to ensure calves have sufficient immunological protection. Calves should ingest a least 6L of good quality colostrum during the first 24 hours after birth with 4L as soon as possible after birth and a further 2 L at or before 12 hours after birth. Smaller breeds such as Jerseys may not be able to drink 6L but should be encouraged to drink as much colostrum as possible.

## 6.5 Breeding

This standard states that breeding methods must be consistent with the principles of organic production and it encourages the use of natural methods of reproduction while still permitting artificial insemination.

### Guidance

- a) Heifers should not be bred before 15 months of age. (2) (the AWTF recommends this be added to the standard)
- b) Easy calving bulls should be selected for a breeding age heifer.

## 6.6 Transport and Handling

#### Guidance

The Codes of Practice for the Transport of Animals should be followed as a minimum standard.

Paragraph 6.6.2 requires transport and slaughter of livestock to be managed to minimize stress, injury and suffering.

## Guidance 6.6.2

- a) Calves should preferably be shipped after the age of 3 weeks when the immune system is fully developed. If shipping young calves, their umbilical cord must be dry and they must have received colostrum and be fed before transporting. During transportation the calves must have bedding and sufficient space to lie down.
- b) Mature milking cows must be milked out prior to shipping and every 12 hours thereafter.
- c) Cull dairy cows should be fed and watered prior to shipping.
- d) To prevent injury from fighting, cattle from different farms should not be mixed during transportation.

In addition 6.6.4 requires that effort be made to transport animals directly from the farm to their final destination, but does not prohibit the practice.

### Guidance 6.6.4

Lactating and cull dairy cattle should be shipped directly to the abattoir and not to auction market.

Paragraph 6.6.5 requires the duration of transportation be as short as possible.

### Guidance 6.6.5

Duration should ideally be less than 8 hours with good ventilation provided, regardless of distance travelled. If longer than 8 hours there should be sufficient bedding and feed. Water must be provided at the end of the journey. Transit time must not exceed 24 hours unless a 5-hour rest period is provided (Health of Animals Regulation states that the rest period must be at least 5 hours; more, if not all animals have had the opportunity to satisfy their feed and water requirements). Approved haulers should be used.

Paragraphs 6.6.6 requires that animals too ill to be transported be suitably euthanized, without cruelty.

The AWTF recommends rewording of the standard to read "Unfit or ill animals shall not be transported and if not rehabilitated, shall be humanely euthanized on the farm by trained personnel with well maintained equipment."

## Guidance 6.6.6

A dairy cow with a body condition score < 2 is considered unfit. Lethal injection by a licensed veterinarian is recommended.

#### 6.7 Livestock Health Care

Paragraph 6.7.1 requires the operator to establish and maintain preventative health care practices including, among other things, the provision of a feed ration to meet nutritional requirements.

### Guidance 6.7.1.b

Animals should be gradually transitioned to any new ration (for example from stored feed to pasture, or from milk to forage) to minimize digestive problems.

6.7.2 allows physical alterations when absolutely necessary to improve the health, welfare or hygiene of animals, or for identification or safety reasons. Alterations must be done in a manner that minimizes pain, stress and suffering, with consideration given to the use of anesthetics, sedatives and non-steroid anti-inflammatory analgesics.

### Guidance 6.7.2

Disbudding of calves with caustic paste, analgesic and sedative is less traumatic than hot-iron dehorning with an anaesthetic (lidocaine). Branding is not necessary for dairy cattle.

Adult cattle should not undergo dehorning procedures.

Castration methods include 1) rubber ring which can be used only in the first 7 days of life 2) bloodless castration by crushing (burdizzo) and 3) surgical castration. Irrespective of age all 3 methods cause pain. Use of rubber rings shortly after birth cause the least acute pain but it is stressful for a much longer time than surgical or burdizzo castration. (5)

Paragraph 6.7.3 allows the use of biological, cultural, and physical treatments and practices, in accordance with CAN/CGSB-32.311, when preventative practices are inadequate to prevent sickness.

## Guidance 6.7.3

Adequate foot care must be provided for all animals including the knowledge of possible risk factors and regular feet trimming at least twice per year. Lame cows should be treated as early as possible.

Lameness is a major welfare problem for dairy cattle and occurs as a result of an adverse interaction between the cow and her environment. Records of the incidence, type and treatment of lameness should be kept, and the incidence of lameness among lactating dairy cows kept below 10% per lactation. (1,5)

Extra care is needed during the periparturient/transition phase (3 weeks prior to 3 weeks after calving) which is a critical period for the development of lameness and other metabolic and infectious disorders. (5)

The AWTF recommends that consideration be given to the inclusion of outcome based standards such as:

Clinical lameness must be kept below 10% of the herd. If occurrence is higher there must be a plan to eliminate the cause.

Mastitis levels should be less than 15% of the herd. If occurrence is higher there must be a plan to eliminate the cause. (1)

Paragraph 6.7.6e allows the use of antibiotics for dairy cattle in emergencies stipulating withdrawal time and other conditions.

## Guidance 6.7.6e

If the animal is not responding to biologic treatment, then appropriate antibiotic treatment must be given so as to prevent further pain and suffering.

## 6.8 Livestock Living Conditions

#### Guidance

Producers are expected to follow the <u>Code of Practice for the Care and Handling of Dairy Cattle (2009)</u> unless the organic standard is more prescriptive or the code conflicts with the intent of the standard.

All facilities used to confine livestock shall protect the animals' health and welfare. They should be conducive to the animals' normal social behaviour (including ability to make some contact with other animals and to escape from aggression) as well as normal feeding behaviour. In addition, facilities should provide the animals with hygienic, comfortable surroundings, fresh air and allow some scope for exercise and protect them from injury.

Lighting must be adequate throughout housing facilities to allow for thorough inspection of the herd at any time. Provision of natural light is recommended. (2)

There should be a fire prevention plan for livestock facilities and emergency power back up.

Paragraph 6.8.1 requires the operator of an organic livestock operation to establish and maintain animal living-conditions that accommodate the health and natural behaviour of all animals. This includes access to the outdoors, shade, shelter, rotational pasture, exercise areas, fresh air and natural daylight suitable to the species, its stage of production, the climate and the environment. Animals must also have access to fresh water and high-quality feed according to their needs.

## Guidance 6.8.1.a

Cattle housed indoors should be provided with adequate ventilation to reduce heat load. Cattle housed outdoors should be provided with adequate shade. Where cattle are housed outdoors, attention should be paid to the quality of walking tracks. These should be well-maintained, even, and not contain sharp stones or other materials likely to lead to trauma.

#### Guidance 6.8.1.b

Cattle drink large quantities of water and should have ad libitum access to clean water. Lactating dairy cows drink 80 to 120 L/day. Cattle should not be expected to walk long distances to access water. The number of water troughs or bowls should allow 10% of the herd to drink at any one time. Unweaned calves should have ad libitum access to fresh water, even when fed milk-replacers.

Group housed cows should be provided with adequate feeding space – one position per cow with more than current industry standard of 60cm is recommended to reduce aggressive interactions particularly during the periparturient period around calving.

It is advisable to provide fresh feed frequently to minimise negative herd interactions.

In addition there must be sufficient space and freedom to lie down in full lateral recumbency, stand up, stretch their limbs and turn freely, and express normal patterns of behaviour.

#### Guidance 6.8.1.c

In order to give dairy cows freedom to express normal behaviour, the use of tie stalls is discouraged and open loose-housing is recommended. Where dairy cattle are housed with free stalls, there should be at least one stall for each cow within the group.

When tie stalls are used, cows should be allowed a period of exercise each day. Electric trainers should not be used.

Cattle housed indoors should be checked at least twice every 24 hours for injuries, especially to the legs and neck.

Regardless of the type of housing, there must be a dry comfortable lying area for every animal.

Grooming tools are recommended in loose housing and free stall systems and should be well maintained.

Herds with a large number of unhealthy cows or cows showing signs of lameness indicate that housing is inadequate regardless of the type of facilities used.

There must be appropriate resting and bedding areas in accordance with the needs of the animal. The floor must not be entirely of slatted or grid construction and must be covered with a thick layer of dry bedding that can absorb excrement.

## Guidance 6.8.1.f

Dairy cattle should have adequate bedding to lie on. Cattle should not lie on bare concrete floors. Floors that are too hard increase the incidence of tail injuries, swollen knees and hock abrasions. <sup>(5)</sup>

# Guidance 6.8.1.g

Research has shown an association between the use of concrete floors and the incidence of lameness. (5) Concrete flooring should be avoided as much as possible for areas where cattle spend time walking or standing. Alternative flooring surfaces (e.g. rubber, sand, dirt) should be used wherever practical.

The AWTF recommends that slatted floors be prohibited.

Grooved concrete floors must not have sharp protrusions that will damage the hooves of the cows. Good drainage of flooring is essential: standing in chronically wet conditions increases the risk of hoof disease, and reduces the hardness of the hoof.

## Guidance 6.8.1

Where problems do exist with housing facilities through animals rejecting, becoming stuck in or lying half-in and half-out of stalls, or with recurring injury (lesions and lameness, for examples) as a result of poor stall design and floor design, professional advice must be sought in order to address and correct such problems.

### Guidance 6.8.1

High air quality should be maintained in housing facilities. Aerial contaminants (e.g. dust, ammonia) inside barns must not reach sustained levels at which they are deleterious to livestock or human health. (4)

Ammonia ≤10ppm

Carbon dioxide ≤3000ppm

Hydrogen sulphide ≤0.5ppm

Dust≤10mg per cubic metre

Paragraph 6.8.3 allows tethering of dairy cattle in the winter months as long as cows have exercise periods.

### Guidance 6.8.3

Continuous tethering is not appropriate. See also 6.8.1.c. Temporary restraint is sometimes necessary for veterinary treatment.

Paragraph 6.8.7 states that herbivores must have access to pasture during the grazing season. At other times they must have access to open air exercise areas unless prevented by weather conditions. Exceptions are allowed for breeding males and young animals.

### Guidance 6.8.7

Wherever possible, dairy cattle should have access to pasture in the summer months: research has shown this can reduce the incidence of various health problems such as mastitis, metritis and lameness. (5) It is recommended that cattle be pastured for a minimum of 120 days per year during the appropriate seasons. Shade must be provided to prevent heat stress during hot sunny days.

Pasture should supply the majority of the cattle's dry matter intakes and nutritional requirements during the grazing season. When environmental or growing conditions are not conducive to pasturing cattle, the cattle should have access to pasture or outdoor exercise paddocks at least 4 to 5 hours a day. Supplementary forage must be provided ad lib where pasture conditions become inadequate to meet body condition needs of the cows.

Although not included in the current version of the standard the AWTF recommends the use of maternity pens for animals that do not calve at pasture.

## Guidance:

Calving should not occur in tie stalls or in the free stall pens. Maternity pens should be within sight of the herd. Pens should be cleaned and bedding changed before each calving. The minimum size of the maternity pen should be 15 square metres.

# 6. 8. 10. Housing of Dairy Calves

## Guidance 6.8.10

Group housing of dairy calves as early as a few days after birth, is encouraged. Calves are social, herd animals and group pens provide them with the opportunity to socialize and exhibit natural behaviours. Freedom of movement and exercise are also enhanced in group pens.

Where group-housing is used for milk fed calves, appropriate management techniques should be adopted to control diseases. Group size should be sufficiently small and should allow each calf uninhibited access to lying areas, feeders and water sources, as well as to ensure easy observation of the animals in order to detect health problems. Group sizes less than 10 are recommended with at least  $2.5\text{m}^2$  per calf. When very young calves are group housed, age and weight variation within the group should be minimized. When milk is provided to group-housed calves only a few times a day (e.g. twice a day feeding), each calf should have access to its own source of milk whether this be a bucket or individual teat.

6.8.10.1 permits the use of individual pens for calves up to three months old providing they are not tethered and there is ample space for turning, stretching and lying down. Also calves have to be able to see, smell and hear other calves.

#### Guidance 6.8.10.1

When using calf hutches, shade must be provided in the summer to maintain comfortable temperatures inside the hutch and enough bedding in winter to keep calves warm and comfortable.

#### Guidance 6.8.10

Whether group or individually housed, a dry bedding area for lying should be provided for milk-fed calves at all times. A minimum depth of 15 cm is recommended.

#### Guidance 6.8.10

Incidence of mortality among unweaned calves should be recorded, and should be kept below 2%.

Paragraph 6.8.9.2 requires that calves be group-housed following weaning.

## **Guidance 6.8.9.2**

Calves in groups should be of similar age and size. (2)

The AWTF recommends that there be a new section in the organic standard addressing milking parlours. The proposal below is based on the SPCA standard text.

### MILKING PARLOUR

- a) Animals must be handled quietly and calmly to, in and out of the milking parlour.
- b) Animals should not have to wait longer than an hour from the time they are moved to the holding area to the time they return to the barn/pasture (maximum 2 hours a day).
- c) Treated cows must be appropriately identified, separated and milked last wherever possible.
- d) Animals too sick or weak to make it to the parlour or those with a chance of going down in the parlour must be milked in a hospital pen with a portable milking unit. (2 & 4)
- e) Appropriate safeguards must be implemented to eliminate and prevent tingle voltage.
- f) Electric crowd gates should not be used.
- g) Floors of milking parlours should be covered in softer high friction material.

#### Guidance:

HACCP principles should be followed in all aspects of milking parlour procedures.

## Guidance obtained from the following documents:

1. Canadian Council of Animal Care (CCAC) 2009, CCAC Guidelines on: the care and use of farm animals in research, teaching and testing, Ottawa, ON. Will be available at:

www.ccac.ca/en/CCAC\_Programs/Guidelines\_Policies/GDLINES/Guidelis.htm.

- 2. BCSPCA, SPCA Certified, Standards for the Raising and Handling of Dairy Cattle, June 2001
- 3. Humane Farm Animal Care. Animal Care Standards Dairy Cows March 2004
- 4. The CGSB draft guideline for the Organic Standard, Part 2, June 2005
- 5. The Welfare of Cattle, Jeffrey Rushen, Anne Marie de Passille, Marina A.G. von Keyserlingk and Daniel M. Weary, Animal Welfare Volume 5, Springer, 2008 (This is a review of all recent research.)
- 6. Recommended code of practice for the care and handling of dairy cattle. Agriculture Canada 1853/E 1990
- 7. NFACC Code of practice for the care and handling of dairy cattle (2009). Dairy Farmers of Canada and National Farm Animal Care Council. Ottawa