Executive Summary

The ethical obligations associated with dairy production include a strong emphasis on animal well-being. As science and practical experience enhance our understanding of dairy animal well-being, producers continue to employ appropriate animal care and management practices. The National Dairy Animal Well-Being Initiative has developed broad principles and guidelines that dairy animal well-being programs should include to meet our ethical obligations. These principles and guidelines are summarized here and expanded in the remainder of this document. All dairy animal well-being programs should be consistent with the principles and guidelines of the National Dairy Animal Well-Being Initiative.

Nutrition

Guiding Principle: Animals and animal groups should have access to a nutritionally adequate diet and clean, fresh water.

Guideline for Newborn Calves: All calves should receive colostrum or colostrum replacer and be fed in a way that promotes health and reduces the risk of disease.

Guideline for Weaned Calves and Growing Cattle: Weaned calves and growing heifers should receive adequate nutrition and water to achieve a proper body condition score and be fed in a way that promotes health and reduces the risk of disease.

Guideline for Adult Cattle: All cattle should receive adequate nutrition and water to achieve a proper body condition score and be fed in a way that promotes health and reduces the risk of disease.

Animal Health

Guiding Principle: The health of all animals and animal groups should be maintained through preventive care programs augmented by rapid diagnosis and treatment when necessary.

Guidelines: Dairy operations should have:
- A valid Veterinary-Client-Patient Relationship (VCPR)
- A current herd health plan
- Management protocols for painful procedures and conditions
- Management protocols for special needs cattle – cattle with a physical or medical condition that requires additional care and/or monitoring
- Appropriate euthanasia guidelines and training for designated and assigned personnel

Management

Guiding Principle: To promote animal well-being animal caretakers should be adequately trained, follow protocols and have access to record systems to meet the requirements of their position.

Guidelines: The operation should have a herd health plan as well as training and protocols for handling, transporting and caring, and euthanasia for cattle for all ages and health conditions. The plan should include:
• Training for new employees plus refresher training for existing employees
• Standard operating procedures to be reviewed annually and revised as necessary
• An emergency management plan
• Record keeping system
• Management oversight responsibilities
• Protocol for special needs cattle

**Housing and Facilities**
*Guiding Principle:* Facilities should be designed, constructed and maintained to provide and promote animal health, comfort and safety.

*Guidelines for Calves (Birth to Weaning or Sale) and Young Stock (Weaning to Parturition or Sale):* Calves and young stock should be given space to stand, lie down, and turn around without difficulty, provided an environment that is clean and dry and be protected from seasonal weather extremes.

*Guidelines for Adult Cattle:* Adult cattle should be given space to stand and lie down, be provided an environment that is clean and dry and be protected from seasonal weather extremes. Facilities should be designed, constructed and maintained to reduce the risk of injury and the development of leg lesions.

**Handling, Movement, and Transportation**
*Guiding Principle:* All animals and animal groups should be handled, moved and transported in a manner that reduces the risk of the potential for injury, discomfort or disease.

*Guideline:* Facilities should be designed and maintained so animals can be moved in a manner that reduces the risk of slips, falls and collisions. Employees should be trained to follow appropriate handling, movement and transportation protocols.

**Third Party Verification**
*Guiding Principle:* Assuring on-farm dairy animal well-being requires third party verification.

*Guideline:* All dairy animal well-being programs should include third party verification to assure the program is able to demonstrate our commitment to meeting our ethical obligation to provide for the well-being of animals in the U.S. dairy industry.
Introduction

The face of agriculture continues to change through the advancement of technology and public policy. For the last two decades the rapid march of technology, the continued increase in the size of operations and the focus on efficient production has improved productivity, controlled costs and enhance food safety. The general public is less familiar with the modern food production system because of these changes.

As a result, animal agriculture no longer enjoys the same level of public trust that our forbearers took for granted. Producers today must demonstrate they are ethically and socially responsible as well as scientifically grounded in the care of their operations, cattle, workers and the environment. When consumers question animal agriculture practices, the industry has responded almost exclusively with science-based answers. Such responses are often viewed by the public as non-responsive because they cannot communicate the commitment to ethical principles and shared values. Today, agriculture must combine ethics and science to build the trust needed with the critical stakeholders who grant the social license to operate.

Even though the dairy industry enjoys a high level of consumer trust and confidence, we recognize there is a growing disconnect between consumers and producers. To protect the high level of trust currently held by consumers regarding the dairy industry, the National Dairy Animal Well-Being Coalition was formed.

The Coalition, a broad-based group of agricultural leaders from across the country, joined forces and developed the Initiative. The Initiative provides a level of assurance to build consumer trust and confidence that the industry is meeting its ethical and moral obligation to care for its cattle. By acting now, the Initiative provides the opportunity to have a say in our destiny, protect markets and preserve market access by demonstrating our commitment to animal well-being. Simply put, the Initiative is a testament to our industry’s commitment to “do the right thing” regarding animal well-being.

The Coalition has worked to create a set of principles and guidelines that can be incorporated into any dairy animal well-being program. This is not a new on-farm well-being program. It is a uniform umbrella of principles and guidelines, including third party verification, that will help build trust with critical stakeholders by demonstrating an industry-wide commitment to animal well-being and ensure program consistency across the country.

Over nine months, producer comments and input were solicited on the NDAWI Principles and Guidelines by circulating them throughout the industry. In the pages that follow, after careful consideration of all comments received, are the finalized NDAWI Principles and Guidelines.
Summary of the Process

Since late 2005, more than 60 people have been involved with the National Dairy Animal Well-Being Coalition in formulating the Initiative. The Coalition is a broad based group of volunteers from across the country representing every facet of the dairy industry. It includes producers, processors, co-ops, allied industry, academics, associations and others. The Coalition is not part of any specific association or organization, but a group that reflects the diversity and strength of the U.S. dairy industry.


These leader-volunteers have attended the Initiative development meetings at their own expense and have donated their time to the development of the Initiative.

As mentioned in the introduction, the Initiative is not another on-farm animal well-being program. The Initiative will capitalize on the strengths of the already established animal well-being programs promoted by the dairy co-ops, associations and companies by setting forth uniform well-being principles and guidelines.

Producers will be asked to sign an endorsement form formally indicating their support for the Initiative. Producers may be asked to participate in an on-farm animal well-being program that incorporates the principles and guidelines developed by the Coalition. The decision to participate in an on-farm animal well-being program is strictly up to the producer and their co-op or marketing partner.

Upon completion of the year-long producer-review of the Principles and Guidelines, the Coalition has evaluated the recommendations and approved this final document.
Nutrition

Guiding Principle:
Animals and animal groups should have access to a nutritionally adequate diet and clean, fresh water.

Guideline for Newborn Calves:
All calves should receive colostrum or colostrum replacer and be fed in a way that promotes health and reduces the risk of disease.

Background:
Dairy calves are born with no natural immunity and depend on the immunoglobulins in colostrum to provide passive immune protection. Colostrum is the milk produced right after calving and is a better source of immunoglobulins, protein, fat, minerals and vitamins than milk. The concentration of these nutrients is usually highest in the first milk produced after calving and decreases with subsequent milkings. The calf has the ability to absorb the immunoglobulins directly from the digestive tract into the blood. The ability of the calf to absorb these antibodies decreases rapidly starting within the first 24 hours after birth. Colostrum or colostrum replacer should be fed within the first 24 hours following parturition to promote immune system development.

Guideline for Weaned Calves and Growing Heifers:
Weaned calves and growing heifers should receive adequate nutrition and water to achieve a proper body condition score and be fed in a way that promotes health and reduces the risk of disease.

Background:
The goal is to provide adequate nutrition to meet targets for weight at a specific age. A series of rations may be fed during this time period. Sources such as the current National Research Council publication serve as well respected guides for developing rations for these groups.

Guideline for Adult Cattle:
All cattle should receive adequate nutrition and water to achieve a proper body condition score and be fed in a way that promotes health and reduces the risk of disease.

Background Dry Cows:
Dry (non-lactating) cows are usually housed and fed separately from the milking cows. The rations for these cattle should provide nutrients required to support fetal calf growth. Sources such as the current National Research Council publication serve as well respected guides for developing rations for these groups.

Background Milking Cows:
These cattle may be housed and fed in a number of different groups depending on the grouping strategy used on the farm. Rations should be formulated to meet the needs of each group. Sources such as the current National Research Council publication serve as
well respected guides for developing rations for these groups. The same ration may be fed to more than one group when the nutritional specifications are similar. Labor and management considerations will also help determine the number of rations fed.

**Background Special Needs Cows:**
There may be situations in which cows need to be observed for veterinary care. It is important to provide access to clean water and a balanced ration while cows are in this area. A key factor is to provide an environment conducive for recovery.

**References:**


Animal Health

Guiding Principle:
The health of all animals and animal groups should be maintained through preventive care programs augmented by rapid diagnosis and treatment when necessary.

Guidelines:
Dairy operations should have:
- A valid Veterinary-Client-Patient Relationship (VCPR)
- A current herd health plan
- Management protocols for painful procedures and conditions
- Management protocols for special needs cattle – cattle with a physical or medical condition that requires additional care and/or monitoring
- Appropriate euthanasia guidelines and training for designated and assigned personnel

Background:
The health of cattle on a dairy is an essential part of good husbandry and a well-being program. One of the foundations for animal well-being is the freedom from pain, injury or disease by prevention or rapid diagnosis and treatment. A dairy maintains the health of the cattle by providing appropriate nutrition, housing and disease prevention, detection and action programs. These programs should be developed through consultation with a qualified veterinarian.

Dairy well-being verification will determine that these programs are in place and functioning by evaluating at least the following areas:

- A Valid Veterinary-Client-Patient Relationship demonstrates that the dairy uses a veterinarian for health and disease issues and allows the dairy to obtain and use appropriate drugs.

- The dairy should have a written Herd Health Plan(s), developed in consultation with the herd veterinarian, to prevent common diseases such as mastitis, lameness, metritis, metabolic diseases, displaced abomasum and other infectious diseases such as pneumonia and infectious diarrhea. The Herd Health Plan should include:
  1. Vaccination protocols
  2. Daily observation of all cattle for injury or signs of disease
  3. Protocols for cattle that develop disease or are injured
  4. Protocols for prevention, detection and action for mastitis and lameness
  5. Training programs for family members and employees involved in detecting disease and injury, reporting the cases and actions to be taken

- Euthanasia is appropriate, when an animal’s quality of life is decreased or when pain and suffering cannot be alleviated. The method of euthanasia must be consistent with recommendations from the American Veterinary Medical Association and the American Association of Bovine Practitioners. The euthanasia protocol should be carried out consistently and shall include:
1. Education of farm staff on the need for euthanasia and recognition of cattle to be euthanized
2. Proper technique
3. Confirmation of death
4. Record keeping of euthanized cattle
5. Disposal of carcasses

• The dairy must have a protocol for handling non-ambulatory cattle, including calves, which cannot stand or walk without assistance. The non-ambulatory cattle protocol should include:
  1. Proper movement so that the animal is not dragged
  2. Husbandry and nursing care that provides shelter, water, feed and isolation from other cattle and protection from predators
  3. Appropriate medical care
  4. Euthanasia if warranted

References:


“On-farm euthanasia” training program; Veterinary Medicine Teaching and Research Center, University of California School of Veterinary Medicine
http://www.vmtrc.ucdavis.edu/dfsleuth/index.htm

Management

Guiding Principle:
To promote animal well-being animal caretakers should be adequately trained, follow protocols and have access to record systems to meet the requirements of their position.

Guidelines:
The operation should have a herd health plan as well as training and protocols for handling, transporting and caring, and euthanasia for cattle for all ages and health conditions. The plan should include:

- Training for new employees plus refresher training for existing employees
- Standard operating procedures to be reviewed annually and revised as necessary
- An emergency management plan
- Record keeping system
- Management oversight responsibilities
- Protocol for special needs cattle

Background:
When addressing management, it is important to describe it, do it, document it and deem it correct. Although oral directions are acceptable as long as all employees are conducting the protocol and procedure in the same manner, written protocols are encouraged. In the absence of a key employee, the written information would benefit another employee stepping in to assist. Much of the information in this section is interdependent on criteria in other sections and/or animal observations.

Dairy well-being verification will determine that these programs are in place and functioning by evaluating at least the following areas:

- Herd Health Plan
  1. The dairy has a written Herd Health Plan(s) (see the corresponding section on Animal Health for additional information).

- Housing
  1. All Facilities should be designed, constructed and maintained to provide and promote animal health, comfort and safety (see the corresponding section on Housing and Facilities for additional information).

- Special Needs Management
  1. Record keeping should be current and animal treatment records accessible to employees.
  2. Protocol should exist to minimize animal discomfort and optimize animal recovery following surgery, illness or injury (including care for downer cattle).
  3. Personnel are trained to move downer cattle.
  4. Proper equipment such as a sled or bucket-loader should be available to move downer cattle. The equipment must be large enough to accommodate the animal and not allow body contact with the ground.
5. Standard operating procedures should be available to all employees regarding downer cattle.
6. Caretakers should be trained on downer cattle procedure.
7. Designated employees should be trained in proper euthanasia techniques.

- Handling, Movement, and Transportation (see the corresponding section on Handling, Movement, and Transportation for additional information).
  1. All employees should be trained in cattle handling to protect the safety of the animal and caretaker. Consequences of inhumane handling must be known and enforced.
  2. All training should be documented and signed by the employee including the date completed, content and trainer.
  3. When moving cattle, the use of prods (electric or otherwise) should be limited to emergencies.
  4. All non-employees handling cattle on-site are subject to the same criteria regarding use of prods, downer movement, etc.
  5. Equipment used to transport cattle should be inspected on a regular basis in order to protect livestock from injury.

- Management
  1. The mission statement should include a commitment to animal well-being. This message should be reiterated throughout the operation as it shows management’s commitment to animal care.
  2. All personnel should be trained in their job responsibilities with regard to animal care and handling (flight zones, movement, etc.).
  3. All protocols should be written, and posted, in the employee’s native language.
  4. The farm should have a written emergency contact sheet that is immediately accessible to employees including emergency phone contacts, directions to the hospital, full address of the property or 911 addresses, etc. This contact sheet is in addition to the emergency action plan which details what to do in case of a fire, natural disaster, etc.

References:


Livestock Behavior, Design of Facilities and Humane Slaughter, Dr. Temple Grandin’s Web Page, [www.grandin.com](http://www.grandin.com)

FDA Compliance Policy Guide 7125.37 (Proper Drug Use and Residue Avoidance by Non-Veterinarians)


Housing and Facilities

Guiding Principle:
Facilities should be designed, constructed and maintained to provide and promote animal health, comfort and safety.

Background:
Facilities include all housing structures, handling structures, lots, pens, stalls, alleys and pastures that are inhabited by cattle of any age and health status. Facilities should provide sufficient protection from temperature extremes. Feed and water should be provided within an area that is accessible to cattle. The structural integrity of the facility should not compromise the safety and well-being of the animals.

Guidelines for Calves (Birth to Weaning or Sale) and Young Stock (Weaning to Parturition or Sale):
Calves and young stock should be given space to stand, lie down, and turn around without difficulty, provided an environment that is clean and dry and be protected from seasonal weather extremes.

Background for Calves (Birth to Weaning or Sale):
Calf hygiene should be scored on a point system such as those described by the New York State Cattle Health Assurance Program (NYSCHAP; 2002) and Fulwider et al. (2007) and used as an indicator of pen and facility cleanliness. Feed and water should be available in sufficient quantities to support the health of the animal. Calf death loss records should be used as an indicator of calf care quality. Colostrum, or a colostrum replacement, should be fed within the first 24 hours following parturition to promote immune system development. Calves should be given shade and shelter from direct sunlight.

Background for Young Stock (Weaning to Parturition or Sale):
Young stock should be provided with adequate space to stand, lie down, and turn around without difficulty. Feed and water should be available in sufficient quantities to support the health of the animal to maintain body condition. All lanes and alleys should be maintained to avoid cattle movement through extreme mud, water, etc. in inclement weather. Cattle hygiene should be scored as an indicator of bedding area and travel lane cleanliness, such as has been described by NYSCHAP (2002) and Fulwider et al. (2007). Young stock death loss should be used as an indicator of care quality. The risk of slips and falls, as indicators of traffic surface quality, can be assessed by scoring (such as Grandin, 2007) and should be reduced by utilizing a nonslip surface in areas of high traffic.

Guidelines for Adult Cattle:
Adult cattle should be given space to stand and lie down, be provided an environment that is clean and dry and be protected from seasonal weather extremes. Facilities should be designed, constructed and maintained to reduce the risk of injury and the development of leg lesions.
**Background for Adult Cattle:**

Cattle should be supplied with non-slip flooring in high traffic areas such as parlor entrances, exit lanes or areas where slips and falls are more likely. Cattle hygiene should be scored as an indicator of bedding area and travel lane cleanliness, such as has been described by NYSCHAP (2002) and Fulwider et al. (2007). Locomotion or leg lesion scores, such as described by NYSCHAP (2002) or Fulwider et al. (2007), should be used to determine foot and leg health. Feed and water should be available in sufficient quantities to support the health and body condition of the animal appropriate to the stage of lactation. Cattle should have the ability to lie down at any time when inhabiting the bedding area. Facilities need to be maintained in a manner that reduces the risk of animal collision with protruding objects such as broken boards or rails and protruding nails. Lameness prevalence, such as described by Grandin (2007), may be indicator of facility deficiencies.

**References:**


Handling, Movement and Transportation

Guiding Principle:
All animals and animal groups should be handled, moved and transported in a manner that reduces the risk of the potential for injury, discomfort or disease.

Guideline:
Facilities should be designed and maintained so cattle can be moved in a manner that reduces the risk of slips, falls and collisions. Employees should be trained to follow appropriate handling, movement and transportation protocols.

Background for Non-Ambulatory Cattle:
Although generally not common on farms, cattle can become non-ambulatory for numerous reasons which range from acute injury, such as a broken leg or nerve damage from calving to attenuating illness or severe lameness. When an animal becomes non-ambulatory, the potential for recovery must be assessed. Cattle that are likely to recover should be moved to an area with adequate bedding, access to feed and water, with no risk of trampling by other cattle and with appropriate shelter from direct sunlight or inclement weather. Non-ambulatory cattle that cannot be carried should be moved with an appropriate sled, sling or bucket with the exception of cases where an animal absolutely must be moved a short distance before an appropriate movement aid can be used (e.g., if a cow becomes non-ambulatory in the parlor). Cattle should not be pulled, dragged, or otherwise moved through mechanical force applied directly to the animal with the exception of specially designed equipment for such purposes. The prognosis of the animal should be considered before the decision is made to move an animal. If the animal is highly unlikely to become ambulatory again, and/or has been treated with drugs that have a long withdrawal period before slaughter with little chance of recovery, the animal should be euthanized and then moved. Farms should have a protocol for dealing with non-ambulatory cattle. This would likely be a part of the herd health plan.

Background for Euthanasia:
Euthanasia may be necessary on cattle with a terminal prognosis that are unfit for slaughter. Euthanasia should be performed in a manner consistent with the standards set by the American Association of Bovine Practitioners.

Background for Handling Facilities (Including Parlor and Loading/Transport Facilities):
Handling facilities, including trailers, must be well maintained and free of objects that may cause bruising such as broken boards or rails or improperly adjusted parlor rails. Vocalization can also be scored in these areas as an indicator of facility or handling issues. The risk of slips and falls, as indicators of traffic surface quality, can be assessed by scoring (such as Grandin, 2007) and should be reduced by utilizing a nonslip surface in all loading and transport facilities. Recommended loading densities of trucks and parlor holding pens, such as described by Grandin (1981), range from 12 square feet per head for 1,000 pound cattle to 18 square feet per head for 1,400 pound cattle. These
densities are not the absolute standard and must be adjusted for calves and special needs cattle. Lactating cattle should be milked prior to being transported.

**Background for Cattle Handling and Movement:**
Cattle are to be handled in a calm, controlled, and gentle manner. Employees should be properly trained in animal handling and the consequences of inhumane handling should be known and enforced. Handlers should be assessed and retrained on a regular basis. Prods, canes and other extreme cattle handling aids should only be used in situations that may potentially cause harm to the handler or the animals. Cattle should be moved in a manner that reduces the risk of slips and falls.

**Background for Animal Fitness for Transport:**
Cattle that have a doubtful chance of reaching the harvest facility in an ambulatory state should be treated or euthanized at the farm. High risk cattle include those with poor body condition, cattle that are severely lame and cattle that have experienced nerve damage due to parturition. If an animal is likely to experience difficulty walking up the ramp to board a trailer, it is unlikely the animal will remain ambulatory for the entire trip unless special measures such as the addition of bedding or transporting the animal in a smaller trailer with lower stocking density are provided.

**References:**


Third Party Verification

Guiding Principle:
Assuring on-farm dairy animal well-being requires third party verification.

Guideline:
All dairy animal well-being programs should include third party verification to assure the program is able to demonstrate our commitment to meeting our ethical obligation to provide for the well-being of animals in the U.S. dairy industry.

Background:
Third party verification demonstrates credibility to our stakeholders. Verification requires participation by someone who does not have a conflicting interest in the operation or the outcome of the verification process. There are many forms of third party verification, such as a quality control model that verifies a statistical sample of participants to assure the overall program is achieving the intended outcome. Whatever method is used, the program must achieve a high confidence interval to demonstrate that it is meeting our ethical obligation and that performance is verified by a third party.