



## Animal Welfare and Dairy Cattle Production Systems Checklist

*Audit the Program against the following Program requirements:*

### PROGRAM REQUIREMENTS – OIE’s Terrestrial Animal Health Code, Animal Welfare and Dairy Cattle Production Systems

- (1) Identify animal welfare scheme program documents and sections that address each criterion.
- (2) Explanations and/or comments must be provided to provide enough evidence of conformance or non-conformance, as applicable.

OIE’s Terrestrial Animal Health Code, Animal Welfare and Dairy Cattle Production Systems Criteria	Applicant Reference Document	Conform (Yes, No, or N/A)	Objective Evidence/Findings/Remarks
<b>Criteria for the Welfare of Dairy Cattle</b>			
0.1 Morbidity rate Both clinical examination and pathology SHOULD be utilized as an indicator of disease, injuries and other problems that may compromise animal welfare.			
0.2 Mortality and culling rates Mortality and culling rates affect the length of productive life and, like morbidity rates, may be direct or indirect indicators of the animal welfare status. Depending on the production system, estimates of mortality and culling rates can be obtained by analyzing death and culling and their temporal and spatial patterns of occurrence. Mortality and culling, and their causes, SHOULD be recorded regularly, e.g. daily, monthly, annually or with reference to key husbandry activities within the production cycle.			
<b>1.0 System Design and Management Including Physical Environment</b>			
1.0.1 When new facilities are planned or existing facilities are modified, professional advice on design in regards to animal welfare and health SHOULD be considered. <b>Examples</b> of professionals include, but are not limited to: farm manager, animal manager, trained employee, veterinarian, dairy scientist, animal scientist, extension agent, nutritionist, structural engineer etc.			
<b>1.1 Thermal Environment</b>			
<b>1.1.1 Heat Stress</b>			
1.1.1.1 Animal handlers SHOULD be aware of the risk that heat stress poses to cattle and of the thresholds in relation to heat and humidity that may require action. Likewise the dairy environment and facilities SHOULD be utilized to mitigate heat stress (ex. use of fans, shade, sprinklers etc.) as appropriate.			



<p>1.1.1.2 If the risk of heat stress reaches very high levels the animal handlers SHOULD institute an emergency action plan that gives priority to access to additional water and could include provision of shade, fans, reduction of animal density, and provision of cooling systems as appropriate for the local conditions.</p>			
<b>1.1.2 Cold Stress</b>			
<p>1.1.2.1 Protection from extreme weather conditions SHOULD be provided when these conditions are likely to create a serious risk to the welfare of cattle, particularly in neonates and young cattle and others that are physiologically compromised. This could be provided by extra bedding and natural or man-made shelters.</p>			
<p>1.1.2.2 During extreme cold weather conditions, animal handlers SHOULD institute an emergency action plan to provide cattle with shelter, adequate feed and water.</p>			
<b>1.1.3 Lighting</b>			
<p>1.1.3.1 Housed cattle that do not have sufficient access to natural light SHOULD be provided with supplementary lighting which follows natural periodicity sufficient for their health and welfare, to facilitate natural behavior patterns and to allow adequate and safe inspection of the cattle.</p>			
<p>1.1.3.2 The lighting SHOULD not cause discomfort to the animals. Housed dairy cows SHOULD be provided with subdued night time lighting were appropriate.</p>			
<p>1.1.3.3 Entrance to and exit from restraint facilities and their surrounding area SHOULD be well lit.</p>			
<b>1.1.4 Air Quality</b>			
<p>1.1.4.1 Proper ventilation is important for effective heat dissipation in cattle and to prevent the build-up of effluent gases (e.g. ammonia and hydrogen sulfide), including those from manure and dust in the housing unit. The ammonia level in enclosed housing SHOULD not exceed 25 ppm or be unpleasant for humans. Air quality that is unpleasant for humans is a useful indicator that air is likely to be a problem for cattle.</p>			
<b>1.1.5 Noise</b>			
<p>1.1.5.1 Cattle are adaptable to different levels and types of noise. However, exposure of cattle to sudden and unexpected noises, including from personnel, SHOULD be minimized where possible to prevent stress and fear reactions.</p>			



<p>1.1.5.2 Ventilation fans, alarms, feeding machinery or other indoor or outdoor equipment SHOULD be constructed, placed, operated and maintained in a manner that minimizes noise.</p>			
<p><b>1.1.6 Flooring, Bedding, Resting Surfaces and Outdoor Areas</b></p>			
<p>1.1.6.1 In all production systems cattle need a well-drained and comfortable place to rest. All cattle in a group SHOULD have sufficient space to lie down and rest. <b>Examples</b> of sufficient resting and groups of animals include, but are not limited to: Animal Observations of Hygiene; Locomotion; Hock and Knee observations; Body Condition. Group: more than one animal in a designated area housed together based upon size, weight, age, health status or other measure determined by manager of the herd.</p>			
<p>1.1.6.2 Particular attention SHOULD be given to the provisions for areas used for calving. The environment in such areas (e.g. floors, bedding, temperature, calving pen and hygiene) SHOULD be appropriate to ensure the welfare of calving cows and new born calves.</p>			
<p>1.1.6.3 In housed systems calving areas SHOULD be thoroughly cleaned and provided with fresh bedding between each calving. Group pens for calving SHOULD be managed based on the principle 'all in - all out'. The group calving pen SHOULD be thoroughly cleaned and provided with fresh bedding between each animal group. The time interval between first and last calving of cows kept in the same group calving pen SHOULD be minimized.</p>			
<p>1.1.6.4 Outdoor calving pens SHOULD be selected to provide the cow with a clean and comfortable environment. If outdoor pens are not part of the dairy, then N/A applies.</p>			
<p>1.1.6.5 Floor management in housed production systems can have a significant impact on cattle welfare. Areas that compromise welfare and are not suitable for resting (e.g. places with excessive fecal accumulation, or wet bedding) SHOULD not be included in the determination of the area available for cattle to lie down.</p>			
<p>1.1.6.6 Water SHOULD not be allowed to pool around troughs and pens. <b>Examples</b> to avoid water pooling include, but are not limited to: cattle safe drains, slopes, pen management such as scrapping (manual or mechanical), etc.</p>			



<p>1.1.6.7 Flooring, bedding, resting surfaces and outdoor yards SHOULD be cleaned as conditions warrant, to ensure good hygiene, comfort and minimize risk of diseases and injuries.</p>			
<p>1.1.6.8 In pasture systems, stock SHOULD be managed to ensure good hygiene and minimize risk of diseases and injuries. <b>Examples</b> of pasture management include, but are not limited to: field rotation, field grooming, pasture management such as type of grass that is planted, amount of time cattle are on a specific pasture etc.</p>			
<p>1.1.6.9 Bedding SHOULD be provided to all animals housed on concrete. In straw, sand or other bedding systems such as rubber mats, crumbled-rubber-filled mattresses and waterbeds, the bedding SHOULD be suitable (e.g. hygienic, non-toxic) and maintained to provide cattle with a clean, dry and comfortable place in which to lie.</p>			
<p>1.1.6.10 The design of a standing, or cubicle, or free stall, SHOULD be such that the animals can stand and lie comfortably on a solid surface (e.g. length, width and height SHOULD be appropriate for the size of the largest animal). There SHOULD be sufficient room for the animal to rest and to rise adopting normal postures, to move its head freely as it stands up, and to groom itself without difficulty. Where individual spaces are provided for cows to rest, there SHOULD be at least one space per cow when resting is sought. <b>Examples</b> of how/when cattle rest include, but are not limited to:</p> <ul style="list-style-type: none"> <li>- In many cases cows are consistently being moved through the dairy to be milked, so the whole group of cows is not in their pen at one time. Some will be lying and some will be moving through their milking routine.</li> <li>- At any one time some cows will be eating, some drinking and some lying.</li> <li>- Cows have a hierarchy. In many cases, lead cows will eat and drink first, while other cows rest. Then the lead cows will rest and the other cows will eat and drink.</li> </ul>			
<p>1.1.6.11 Alleys and gates SHOULD be designed and operated to allow free movement of cattle. Floors SHOULD be designed to minimize slipping and falling, promote foot health, and reduce the risk of claw injuries.</p>			
<p>1.1.6.12 If a housing system includes areas of slatted floor, cattle, including replacement</p>			



<p>stock, SHOULD have access to a solid lying area. The slat and gap widths SHOULD be appropriate to the hoof size of the cattle to prevent injuries.</p>			
<p>1.1.6.13 If cattle have to be tethered whether indoors or outdoors, they SHOULD, as a minimum, be able to lie down, stand up, maintain normal body posture and groom themselves unimpeded. Cows kept in tie stall housing SHOULD be allowed sufficient untethered exercise to prevent welfare problems. When tethered outdoors they SHOULD be able to walk. Animal handlers SHOULD be aware of the higher risks of welfare problems where cattle are tethered.</p>			
<p>1.1.6.14 Where breeding bulls are in housing systems, care SHOULD be taken to ensure that they have sight of other cattle with sufficient space for resting and exercise. If used for natural mating, the floor SHOULD not be slatted or slippery.</p>			
<p><b>1.1.7 Location, Construction and Equipment</b></p>			
<p>1.1.7.1 The impacts of climate and geographical factors on dairy cattle SHOULD be taken into consideration when farms are established. Efforts SHOULD be made to mitigate any negative impacts of those factors. <b>Examples</b> of how to mitigate climate and geographical changes to cattle include, but are not limited to: facility design such as, shade, fans, wind breaks, bedding, movement of cattle through a facility (ex. milking times, breeding times), choosing a specific breed of cattle, etc.</p>			
<p>1.1.7.2 All facilities for dairy cattle SHOULD be constructed, maintained and operated to minimize the risk to the welfare of the cattle.</p>			
<p>1.1.7.3 In pasture and combination systems tracks and races between the milking area and fields SHOULD be laid out and managed so as to minimize the overall distances walked. Construction and maintenance of tracks and races, including their surface, SHOULD minimize any risk to the welfare of the cattle, especially from foot health problems.</p>			
<p><del>1.1.7.4 Equipment for milking, handling and restraining dairy cattle SHOULD be constructed and used in a way that minimizes the risk of injury, pain or distress. Manufacturers of such equipment SHOULD consider animal welfare when designing it and when preparing operating instructions.</del> <b>regulation already in place through FDA:</b> <a href="https://www.fda.gov/downloads/food/guida">https://www.fda.gov/downloads/food/guida</a></p>		<p><b>Per Industry, N/A for this checklist</b></p>	



<a href="#">neeregulation/guidancedocumentsregulator vinformation/milk/ucm513508.pdf</a>			
1.1.7.6 Electrified fences and gates SHOULD be well-designed and maintained to avoid welfare problems, and used only in accordance with manufacturer's instructions.			
1.1.7.8 In all production systems, feed and water provision SHOULD allow all cattle to have access to feed and water. Feeding systems SHOULD be designed to minimize agonistic behavior. Feeders and water providers SHOULD be easy to clean and properly maintained.			
1.1.7.9 Milking parlors, free stalls, standings, cubicles, races, chutes and pens SHOULD be properly maintained and be free from sharp edges and protrusions to prevent injury to cattle.			
1.1.7.10 There SHOULD be a separated area where individual animals can be examined closely and which has restraining facilities.			
1.1.7.11 When relevant, sick and injured animals SHOULD be treated away from healthy animals. When a dedicated space is provided this SHOULD accommodate all the needs of the animal e.g. recumbent animals may require additional bedding or an alternative floors surface.			
1.1.7.12 Hydraulic, pneumatic and manual equipment SHOULD be adjusted, as appropriate, to the size of cattle to be handled. Hydraulic and pneumatic operated restraining equipment SHOULD have pressure limiting devices to prevent injuries. Regular cleaning and maintenance of working parts is essential to ensure the system functions properly and is safe for the cattle.			
1.1.7.13 Mechanical and electrical devices used in facilities SHOULD be safe for cattle.			
<del>1.1.7.14 Dipping baths and spray races used for ectoparasite control SHOULD be designed and operated to minimize the risk of crowding and to prevent injury and drowning. Dipping of dairy cattle is not practiced in the U.S. (this is more specific to beef cattle)</del>		<b>Per Industry, N/A for this checklist.</b>	
1.1.7.15 Collecting yards (e.g. entry to the milking parlor) SHOULD be designed and operated to minimize stress and prevent injuries and lameness.			
1.1.7.16 The loading areas and ramps, including the slope of the ramp, SHOULD be designed to minimize stress and injuries for the animals and ensure the safety of the animal handlers.			



1.1.8 Emergency Plans			
1.1.8.1 The failure of power, water and feed supply systems could compromise animal welfare. Dairy producers SHOULD have contingency plans to cover the failure of these systems. These plans may include the provision of fail-safe alarms to detect malfunctions, back-up generators, contact information for key service providers, ability to store water on farm, access to water cartage services, adequate on-farm storage of feed, alternative feed supply, and emergency killing of animals			
1.1.8.2 Preventive measures for emergencies SHOULD be input-based rather than outcome based. Contingency plans SHOULD include an evacuation plan and be documented and communicated to all responsible parties. Alarms and back-up systems SHOULD be checked regularly.			
2.0 Animal Management Practices			
2.0.1 Good animal management practices are critical to providing an acceptable level of animal welfare. Personnel involved in handling and caring for dairy cattle SHOULD be competent with relevant experience or training to equip them with the necessary practical skills and knowledge of dairy cattle behavior, handling, health, biosecurity, physiological needs and welfare. There SHOULD be a sufficient number of animal handlers to ensure the health and welfare of the cattle.			
2.1 Biosecurity and Animal Health			
2.1.1 Biosecurity and Disease Prevention			
2.1.1.1 Biosecurity plans SHOULD be designed, implemented and maintained, commensurate with the best possible herd health status, available resources and infrastructure, and current disease risk and, for listed diseases in accordance with relevant recommendations in the Terrestrial Code.			
2.1.1.2 These biosecurity plans SHOULD address the control of the major sources and pathways for spread of pathogens: <ul style="list-style-type: none"> <li>– cattle, including introductions to the herd,</li> <li>– calves coming from different sources,</li> <li>– other domestic animals, wildlife, and pests,</li> <li>– people including sanitation practices,</li> <li>– equipment, tools and facilities,</li> <li>– vehicles,</li> <li>– air,</li> <li>– water supply, feed and bedding,</li> </ul>			





<p>– manure, waste and dead stock disposal, – semen and embryos.</p>			
<b>2.1.2 Animal Health Management</b>			
<p>2.1.2.1 Animal health management SHOULD optimize the physical and behavioral health and welfare of the dairy herd. It includes the prevention, treatment and control of diseases and conditions affecting the herd (in particular mastitis, lameness, reproductive and metabolic diseases).</p>			
<p>2.1.2.2 There SHOULD be an effective program for the prevention and treatment of diseases and conditions, formulated in consultation with a veterinarian, where appropriate. This program SHOULD include the recording of production data (e.g. number of lactating cows, births, animal movements in and out of the herd, milk yield), morbidities, mortalities, culling rate and medical treatments. It SHOULD be kept up to date by the animal handler(s). Regular monitoring of records aids management and quickly reveals problem areas for intervention.</p>			
<p>2.1.2.3 For parasitic burdens (e.g. endoparasites, ectoparasites and protozoa), a program SHOULD be implemented to monitor, control and treat, as appropriate.</p>			
<p>2.1.2.4 Lameness can be a problem in dairy cattle. Animal handlers SHOULD monitor the state of feet and take measures to prevent lameness and maintain foot health.</p>			
<p>2.1.2.5 Those responsible for the care of cattle SHOULD be aware of early specific signs of disease or distress (e.g. coughing, ocular discharge, changes in milk appearance, changes in locomotory behavior), and non-specific signs such as reduced feed and water intake, reduction of milk production, changes in weight and body condition, changes in behavior or abnormal physical appearance.</p>			
<p>2.1.2.6 Cattle at higher risk of disease or distress will require more frequent inspection by animal handlers. If animal handlers suspect the presence of a disease or are not able to correct the causes of disease or distress, they SHOULD seek advice from those having training and experience, such as veterinarians or other qualified advisers, as appropriate.</p>			
<p>2.1.2.7 Vaccinations and other treatments administered to cattle SHOULD be carried out by veterinarians or other people skilled in the procedures and on the basis of veterinary or other expert advice and with consideration for the welfare of the dairy cattle.</p>			





2.1.2.8 Animal handlers SHOULD be competent in identifying and appropriately managing chronically ill or injured cattle, for instance in recognizing and dealing with non-ambulatory cattle, especially those that have recently calved. Veterinary advice SHOULD be sought as appropriate.			
2.1.2.9 Non-ambulatory cattle SHOULD have access to water at all times and be provided with feed at least once daily and milked as necessary. They SHOULD be provided shade and protected from predators. They SHOULD not be transported or moved unless absolutely necessary for treatment or diagnosis. Such movements SHOULD be done carefully using methods that avoid dragging the animal or lifting it in a way that might exacerbate injuries.			
2.1.2.10 Animal handlers SHOULD also be competent in assessing fitness to transport, as described in Chapter 7.3.			
2.1.2.11 In case of disease or injury, when treatment has failed or recovery is unlikely (e.g. cattle that are unable to stand up, unaided or refuse to eat or drink), the animal SHOULD be humanely killed as soon as possible.			
2.1.2.12 Animals suffering from photosensitization SHOULD be provided with shade and where possible the cause SHOULD be identified.			
<b>2.1.3 Emergency Plans for Disease Outbreaks</b>			
2.1.3.1 Emergency plans SHOULD cover the management of the farm in the face of an emergency disease outbreak, consistent with national programs and recommendations of Veterinary Services as appropriate. For disease spread see APHIS's Secure Milk Supply Plan: <a href="http://securemilksupply.org/">http://securemilksupply.org/</a>			
<b>2.2 Nutrition</b>			
2.2.1 Cattle SHOULD be provided with access to an appropriate quantity and quality of balanced nutrition that meets their physiological needs.			
2.2.2 Where cattle are maintained in outdoor conditions, short term exposure to climatic extremes may prevent access to nutrition that meets their daily physiological needs. In such circumstances the animal handler SHOULD ensure that the period of reduced nutrition is not prolonged and that extra food and water supply are provided if welfare would otherwise be compromised.			
2.2.3 Animal handlers SHOULD have adequate knowledge of appropriate body			



condition scoring systems for their cattle and SHOULD not allow body condition to go outside an acceptable range in accordance with breed and physiological status.			
2.2.4 Feedstuffs and feed ingredients SHOULD be of satisfactory quality to meet nutritional needs and stored to minimize contamination and deterioration. Where appropriate, feed and feed ingredients SHOULD be tested for the presence of substances that would adversely impact on animal health. Control and monitoring of animal feed SHOULD be implemented.			
2.2.5 Grain or new diets SHOULD be introduced slowly and palatable fibrous feed such as, but not limited to silage, grass and hay, SHOULD be available ad libitum and/or to meet metabolic requirements in a way that promotes digestion and ensures normal rumen function.			
2.2.6 Animal handlers SHOULD understand the impact of cattle size and age, weather patterns, diet composition and sudden dietary changes in respect to digestive upsets and their negative consequences (displaced abomasum, sub-acute ruminal acidosis, bloat, liver abscess, and laminitis). Where appropriate, dairy producers SHOULD consult a cattle nutritionist for advice on ration formulation and feeding programs.			
2.2.7 Particular attention SHOULD be paid to nutrition in the last month of pregnancy, with regards to energy balance, roughage and micronutrients, in order to minimize calving and post-calving diseases and body condition loss.			
2.2.9 Calves over two weeks old SHOULD have access to a sufficient daily ration of fibrous feed and/or starter ration (concentrate) to promote rumen development and to reduce abnormal oral behaviors.			
2.2.10 Dairy producers SHOULD become familiar with potential micronutrient deficiencies or excesses for production systems in their respective geographical areas and use appropriately formulated supplements where necessary.			
<b>2.3 Social Environment</b>			
2.3.1 Management of cattle SHOULD take into account their social environment as it relates to animal welfare, particularly in housed systems. Problem areas include: agonistic and oestrus activity, mixing of heifers and cows, feeding cattle of different size and age in the same pens, decreased space			



allowance, insufficient space at the feeder, insufficient water access and mixing of bulls.			
2.3.2 Management of cattle in all systems SHOULD take into account the social interactions of cattle within groups. The animal handler SHOULD understand the dominance hierarchies that develop within different groups and focus on high risk animals, such as sick or injured, very young, very old, small or large size for cohort group, for evidence of agonistic behavior and excessive mounting behavior. The animal handler SHOULD understand the risks of increased agonistic interactions between animals, particularly after mixing groups.			
2.3.4 When other measures have failed, cattle that are expressing excessive agonistic activity or excessive mounting behavior SHOULD be managed in accordance with the Herd Health Plan or removed from the group. <b>Examples</b> of how to manage animals who express excessive agnostic behavior include, but are not limited to: Animals that are scheduled to be bred grouped separately until bred per reproductive program protocol.			
2.3.5 Animal handlers SHOULD be aware of the animal welfare problems that may be caused by mixing of inappropriate groups of cattle and provide adequate measures to minimize them (e.g. introduction of heifers in a new group, mixing of animals at different production stages that have different dietary needs).			
2.3.6 Horned and non-horned cattle SHOULD not be mixed because of the risk of injury.			
<b>2.4 Space Allowance</b>			
2.4.1 Cattle in all production systems SHOULD be offered adequate space for comfort and socialization.			
2.4.2 Space allowance SHOULD be managed taking into account different areas for lying, standing and feeding. Crowding SHOULD not adversely affect normal behavior of cattle and durations of time spent lying.			
2.4.3 All cattle SHOULD be able to rest, and each animal lie down, stand up and move freely. In growing animals, space allowance SHOULD also be managed such that weight gain is not adversely affected. If abnormal behavior is seen, corrective measures SHOULD be taken, such as increasing space allowance, redefining the areas available for lying, standing and feeding.			



2.4.4 In pastured systems, stocking density SHOULD depend on the available feed and water supply and pasture quality.			
<b>2.5 Protection from Predators</b>			
2.5.1 Cattle SHOULD be protected from predators.			
<b>2.6 Genetic Selection</b>			
2.6.1 Welfare and health considerations, in addition to productivity, SHOULD be taken into account when choosing a breed or subspecies for a particular location or production system.			
2.6.2 In breeding programs, attention SHOULD be paid to criteria conducive to the improvement of cattle welfare, including health. The conservation and development of genetic lines of dairy cattle, which limit or reduce animal welfare problems, SHOULD be encouraged. Examples of such criteria include nutritional maintenance requirement, disease resistance and heat tolerance.			
2.6.3 Individual animals within a breed SHOULD be selected to propagate offspring that exhibit traits beneficial to animal health and welfare by promoting robustness and longevity. These include resistance to infectious and production related diseases, ease of calving, fertility, body conformation and mobility, and temperament.			
<b>2.7 Artificial Insemination, Pregnancy Diagnosis and Embryo Transfer</b>			
2.7.1 Semen collection SHOULD be carried out by a trained operator in a manner that does not cause pain or distress to the bull and any teaser animal used during collection. <b>Most dairies do not collect semen. If a dairy has a bull at all it will be a "clean up" bull and used for natural mating for those cows that were found open after insemination.</b>		<b>Per Industry, N/A since semen collection does not apply to all dairies.</b>	
2.7.2 Artificial insemination and pregnancy diagnosis SHOULD be performed by a competent operator in a manner that does not cause pain or distress.			
2.7.3 Embryo transfer SHOULD be performed under an epidural or other anesthesia by a trained operator, preferably a veterinarian or a veterinary para-professional.			
<b>2.8 Dam and Sire Selection and Calving Management</b>			
2.8.1 Dystocia is a welfare risk to dairy cattle. Heifers SHOULD not be bred before they reach the stage of physical maturity sufficient to ensure the health and welfare of both dam and calf at birth. The sire has a highly heritable effect on final calf size and as such can have a significant impact on ease of			



calving. Sire selection for embryo implantation, insemination or natural mating, SHOULD take into account the maturity and size of the female.			
2.8.2 Pregnant cows and heifers SHOULD be managed during pregnancy so as to achieve an appropriate body condition range for the breed. Excessive fatness increases the risk of dystocia and metabolic disorders during late pregnancy or after parturition.			
2.8.3 Cows and heifers SHOULD be monitored when they are close to calving. Animals observed to be having difficulty in calving SHOULD be assisted by a competent handler as soon as possible after they are detected. When a caesarean section is required, it must be carried out by a veterinarian.			
<b>2.9 Newborn Calves</b>			
2.9.1 Calving aids SHOULD not be used to speed the birthing process, and SHOULD not cause undue pain, distress, or further medical problems.			
2.9.2 Newborn calves are susceptible to hypothermia. The temperature and ventilation of the birthing area SHOULD consider the needs of the newborn calf. Soft, dry bedding and supplemental heat can help prevent cold stress.			
2.9.4 Animal handlers SHOULD ensure that calves receive colostrum or colostrum replacer of a satisfactory quality, within 24 hours of birth, and in sufficient quantity, to provide passive immunity.			
2.9.5 Recently born calves SHOULD not be transported until the navel is dry or disinfected, and after which time any transport required SHOULD be carried out in accordance with Chapter 7.3. <b>Examples</b> of why navel “dipping” include, but are not limited to: The navel may be wet if the dairy “dips” the navel. Navels are dipped in a disinfectant to stop bacteria from infecting the calf via the navel. Dipping the navel has the same effect as letting the navel dry.			
2.9.6 Calves SHOULD be handled and moved in a manner which minimizes distress and avoids pain and injury.			
<b>2.10 Cow-calf Separation and Weaning</b>			
2.10.1 Calves SHOULD be weaned only when their ruminant digestive system has developed sufficiently to enable them to maintain growth, health and good welfare.			



2.10.2 Dairy cattle producers SHOULD seek expert advice on the most appropriate time and method of weaning for their type of cattle and production system.			
<b>2.11 Rearing of Replacement Stock</b>			
2.11.1 Young calves are at particular risk of thermal stress. Special attention SHOULD be paid to management of the thermal environment (e.g. provision of additional bedding, nutrition or protection to maintain warmth and appropriate growth).			
2.11.2 Individual calf-housing may facilitate monitoring of health of very young calves and minimize the risk of disease spread, but replacement stock SHOULD then be reared in groups. Animals in groups SHOULD be of similar age and physical size.			
2.11.3 Whether reared individually or in group pens, each calf SHOULD have enough space to be able to turn around, rest, stand up and groom comfortably and see other animals.			
2.11.4 Replacement stock SHOULD be monitored for cross-sucking and appropriate measures taken to prevent this occurring (e.g. provide sucking devices, revise or modify feeding practices, provide other environmental enrichments).			
2.11.5 Particular attention SHOULD be paid to the nutrition, including trace elements, of growing replacement stock to ensure good health and that they achieve an appropriate growth curve for the breed and farming objectives.			
<b>2.12 Milking Management</b>			
2.12.1 Milking, whether by hand or machine, SHOULD be carried out in a calm and considerate manner in order to avoid pain and distress. Special attention SHOULD be paid to the hygiene of personnel, the udder and milking equipment. All cows SHOULD be checked for abnormal milk at every milking.			
2.12.2 Milking machines, especially automated milking systems, SHOULD be used and maintained in a manner which minimizes injury to teats and udders. Manufacturers of such equipment SHOULD provide operating instructions that consider animal welfare. <b>This is an N/A for this checklist citing the regulation already in place through FDA:</b> <a href="https://www.fda.gov/downloads/food/guidanceregulation/guidancedocumentsregulatoryinformation/milk/ucm513508.pdf">https://www.fda.gov/downloads/food/guidanceregulation/guidancedocumentsregulatoryinformation/milk/ucm513508.pdf</a>		<b>Per Industry, N/A for this checklist since regulation in place through FDA.</b>	



2.12.3 A regular milking routine <b>SHOULD</b> be established relevant to the stage of lactation and the capacity of the system.			
2.12.4 Animal handlers <b>SHOULD</b> regularly check the information provided by the milking system and act accordingly to protect the welfare of the cows.			
2.12.5 Special care <b>SHOULD</b> be paid to animals being milked for the first time. They <b>SHOULD</b> be familiarized with the milking facility prior to giving birth.			
2.12.6 Long waiting times before and after milking can lead to health and welfare problems (e.g. lameness, reduced time to eat). Management <b>SHOULD</b> ensure that waiting times are minimized.			
<b>2.13 Painful Husbandry Procedures</b>			
2.13 Husbandry practices are routinely carried out in cattle for reasons of management, animal welfare and human safety. Those practices that have the potential to cause pain <b>SHOULD</b> be performed in such a way as to minimize any pain and stress to the animal. Such procedures <b>SHOULD</b> be performed at as early an age as possible or using anesthesia or analgesia under the recommendation or supervision of a veterinarian.			
<b>2.13.1 Disbudding and Dehorning</b>			
2.13.1.1 Thermal cautery of the horn bud by a trained operator with proper equipment is the recommended method in order to minimize post-operative pain. This <b>SHOULD</b> be done at an appropriate age before the horn bud has attached to the skull.			
2.13.1.2 Guidance from a veterinarian or veterinary para-professional as to the optimum method and timing for the type of cattle and production system <b>SHOULD</b> be sought. The use of anesthesia and analgesia are strongly recommended when performing disbudding, and <b>SHOULD</b> always be used when dehorning. Appropriate restraint systems and procedures are required when disbudding or dehorning.			
2.13.1.3 Other methods of disbudding include: removal of the horn buds with a knife and the application of chemical paste to cauterize the horn buds. Where chemical paste is used, special attention <b>SHOULD</b> be paid to avoid chemical burns to other parts of the calf or to other calves. This method is not recommended for calves older than two weeks.			
2.13.1.4 Operators <b>SHOULD</b> be trained and competent in the procedure used, and be able to recognize the signs of pain and			





complications that may include excessive bleeding or sinus infection.			
<b>2.13.2 Tail Docking</b>			
2.13.2.1 Tail docking does not improve the health and welfare of dairy cattle and therefore it is not recommended. As an alternative, trimming of tail hair SHOULD be considered where maintenance of hygiene is a problem.			
<b>2.13.3 Identification</b>			
2.13.3.1 Ear-tagging, ear-notching, tattooing, branding and radio frequency identification devices (RFID) are methods of permanently identifying dairy cattle. The least invasive approach SHOULD be adopted whichever method is chosen (e.g. the least number of ear tags per ear and the smallest notch practical). It SHOULD be accomplished quickly, expertly and with proper equipment.			
2.13.3.2 Freeze branding and branding with a hot iron SHOULD be avoided where alternative identification methods exist (e.g. electronic identification or ear-tags). When branding is used, the operator SHOULD be competent in procedures used and be able to recognize signs of complications.			
2.13.3.3 Identification systems SHOULD be established.			
<b>2.14 Inspection and Handling</b>			
2.14.1 Dairy cattle SHOULD be inspected at intervals appropriate to the production system and the risks to the health and welfare of the cattle. Lactating cows SHOULD be inspected at least once a day. Some animals SHOULD be inspected more frequently, for example, neonatal calves, cows in late gestation, newly weaned calves, cattle experiencing environmental stress and those that have undergone painful husbandry procedures or veterinary treatment.			
2.14.2 Dairy cattle identified as sick or injured SHOULD be given appropriate treatment at the first available opportunity by competent animal handlers. If animal handlers are unable to provide appropriate treatment, the services of a veterinarian SHOULD be sought.			
2.14.3 Handling aids that may cause pain and distress (e.g. electric goads) SHOULD be used only in extreme circumstances and provided that the animal can move freely. Dairy cattle SHOULD not be prodded in sensitive areas including the udder, face, eyes, nose or ano-genital region. Electric prods SHOULD not be used on calves.			



<p>2.14.4 Where dogs are used as an aid for cattle herding they SHOULD be properly trained. Animal handlers SHOULD be aware that presence of dogs can stress the cattle and cause fear and SHOULD keep them under control at all times. The use of dogs is not appropriate in housed systems, collection yards or other small enclosures where the cattle cannot move freely away. <b>For more information on dogs utilize BQA: “Properly trained dogs can be effective and humane tools for cattle handling. Insure that rough handling, barking and impeding of cattle flow is minimized (Page 98).”</b> <a href="http://www.bqa.org/Media/BQA/Docs/nationalmanual.pdf">http://www.bqa.org/Media/BQA/Docs/nationalmanual.pdf</a></p>		<p><b>Per Industry, N/A since dogs are not typically used in the U.S. dairy industry</b></p>	
<p>2.14.5 Cattle are adaptable to different visual environments. However, exposure of cattle to sudden movement or changes in visual contrasts SHOULD be minimized where possible to prevent stress and fear reactions.</p>			
<p>2.14.6 Electroimmobilisation SHOULD not be used.</p>		<p><b>Per Industry, N/A since electroimmobilisation is not a practice that is used in the U.S.</b></p>	
<p><b>2.15 Personnel Training</b></p>			
<p>2.15.1 All people responsible for dairy cattle SHOULD be competent in accordance with their responsibilities and SHOULD understand cattle husbandry, animal handling, milking routines, reproductive management techniques, behavior, biosecurity, signs of disease, and indicators of poor animal welfare such as stress, pain and discomfort, and their alleviation.</p>			
<p><b>2.16 Disaster Management</b></p>			
<p>2.16.1 Plans SHOULD be in place to minimize and mitigate the effect of disasters (e.g. earthquake, fire, drought, flooding, blizzard, and hurricane). Such plans may include evacuation procedures, identifying high ground, maintaining emergency feed and water stores, destocking and humane killing when necessary.</p>			
<p>2.16.2 In times of drought, animal management decisions SHOULD be made as early as possible and these SHOULD include a consideration of reducing cattle numbers.</p>			



2.16.3 Humane killing procedures for sick or injured cattle SHOULD be part of the disaster management plan.			
<b>2.17 Humane Killing</b>			
2.17.1 For sick and injured cattle a prompt diagnosis SHOULD be made to determine whether the animal SHOULD be treated or humanely killed.			
<p>2.17.2 The decision to kill an animal humanely and the procedure itself SHOULD be undertaken by a competent person.</p> <p>Reasons for humane killing may include:</p> <ul style="list-style-type: none"> <li>– severe emaciation, weak cattle that are non-ambulatory or at risk of becoming non ambulatory;</li> <li>– non-ambulatory cattle that will not stand up, refuse to eat or drink, have not responded to therapy;</li> <li>– rapid deterioration of a medical condition for which therapies have been unsuccessful;</li> <li>– severe, debilitating pain;</li> <li>– compound (open) fracture;</li> <li>– spinal injury;</li> <li>– central nervous system disease;</li> <li>– multiple joint infections with chronic weight loss;</li> <li>– calves that are premature and unlikely to survive, have a debilitating congenital defect, or otherwise unwanted; and</li> <li>– as part of disaster management response.</li> </ul>			

**NOTE: When this checklist is complete, print to ADOBE and add to the audit documentation.**