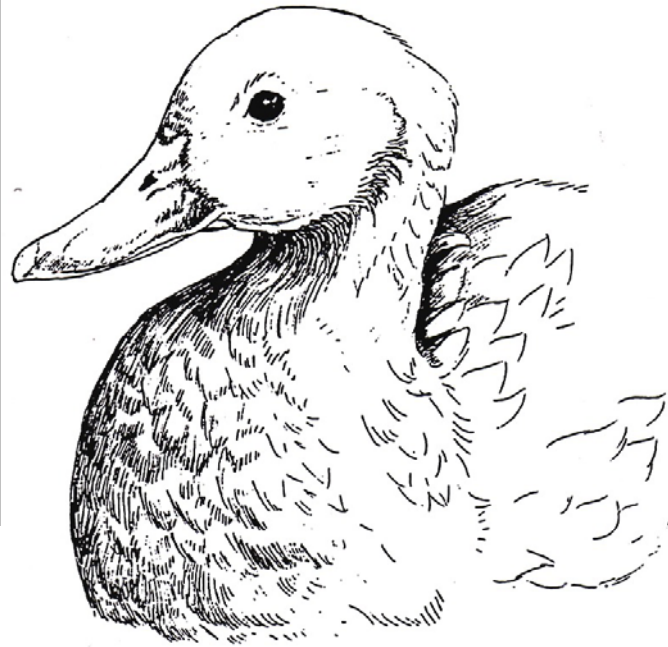


---

# DUCK WELL-BEING GUIDELINES

*Adopted March 2000*

*Revised April 2002; August 2006; September 2009*



***Maple Leaf Farms***

P.O. Box 308  
Milford, IN 46542

---

## Table of Contents

<b>Section</b>	<b>Page</b>
<b>Table of Contents</b>	<b>1-2</b>
<b>Goal and Five Freedoms</b>	<b>3</b>
<b>Duck Care Core Beliefs &amp; Trident Stewardship Audit Program</b>	<b>4</b>
<b>Introduction, Stockmanship and Staffing</b>	<b>5</b>
<b>Section 1 - Guidelines, Training &amp; Certification Process</b>	<b>6</b>
<b>Section 2 - Duck Care Standards</b>	<b>7-14</b>
2.0 Emergency Procedures	
2.1 Flock and Health Care Record Keeping	
2.2 General Housing	
2.3 Ventilation, Temperature Control and Maintaining Air Quality	
2.4 Stocking Densities and Freedom of Movement	
2.5 Lighting Management	
2.6 Mechanical Equipment and Services	
2.7 Litter/ Raised Flooring Management	
2.8 Noise Control	
<b>Section 3 – Health, Veterinary Care &amp; Site Biosecurity</b>	<b>15-21</b>
3.0 Site Biosecurity	
3.1 Health and Hygiene	
3.2 Inspection	
3.3 Disease Control	
3.4 Euthanasia	
3.5 Vaccination	
3.6 Therapeutic Intervention	
3.7 Health Care Records	
<b>Section 4 – Nutrition: Feed and Water</b>	<b>22-24</b>
4.0 Feed	
4.1 Water	
4.2 Equipment	
4.3 Feed Withdrawal	

<b>Section 5 – Security</b>	<b>25</b>
<b>Section 6 – Breeding: General Management</b>	<b>26-27</b>
<b>Section 7 – Hatchery: General Management</b>	<b>28-30</b>
7.0 Hatchery Emergency Procedures	
7.1 Health and Hygiene	
7.2 Duck Handling	
7.3 Transportation	
7.4 Duckling and Embryo Euthanasia	
7.5 Record Keeping	
<b>Section 8 – Market Duck Transportation</b>	<b>31-35</b>
8.0 General Transportation	
8.1 Handling	
8.2 Live Haul Vehicles and Loading Equipment	
8.3 Protection from Adverse Weather Conditions	
8.4 Loading	
8.5 Unloading	
<b>Section 9 – Duck Processing</b>	<b>36-37</b>
9.0 Handling / Holding Area	
9.1 Live Hang, Stunning and Exsanguinations	
9.2 Records	
9.3 Equipment	
<b>Duck Well-Being Advisory Committee Overview</b>	<b>38</b>
<b>References</b>	<b>39</b>

**Goal:**

Maple Leaf Farms is committed to researching, promoting and maintaining high standards of animal well-being through educational materials, training programs, and certification programs for Maple Leaf Farms employees and contract producers.

**These guidelines are intended to work with and be supported by the following:**

1. Breeder / Grower Management Handbooks & Standard Operating Procedures (SOPs)
2. Environmental Policy
3. Biosecurity Policy
4. National Poultry Improvement Program
5. Farm Deficiency Reporting & Compliance Program

**The guidelines should support the Five Freedoms, which define ideal states rather than standards for acceptable welfare.**

1. **FREEDOM FROM HUNGER AND THIRST** – by providing access to fresh water and feed to maintain full health and vigor.
2. **FREEDOM FROM DISCOMFORT** - by providing an appropriate environment including shelter and a comfortable resting area.
3. **FREEDOM FROM PAIN, INJURY AND DISEASE** - by preventing disease through biosecurity, rapid diagnosis and treatment.
4. **FREEDOM TO EXPRESS NORMAL BEHAVIOR** - by providing sufficient space, proper facilities and the company of other ducks.
5. **FREEDOM FROM FEAR AND DISTRESS** - by providing proper handling, growing conditions and treatment to prevent suffering.

**In acknowledging these freedoms, those who care for ducks must practice:**

- Caring, responsible planning and management
- Skilled, knowledgeable and conscientious stockmanship
- Proper environmental design
- Appropriate handling and transportation
- Humane slaughter or euthanasia

## **Maple Leaf Farms Duck Care Core Beliefs**

**Assuring the well-being of our ducks is a top priority for Maple Leaf Farms and its employees.**

- We take duck care very seriously and will thoroughly train and supervise our employees on the proper care and handling of our ducks.
- We do not condone the mistreatment or abuse of our ducks. Such actions will be considered a violation of our company's code of conduct and will be reported to management immediately and appropriate disciplinary action will be taken with the individual (s) involved.
- We are committed to using approved best animal care practices throughout all stages of production and processing to avoid mishandling ducks. In any case where these practices are not being followed, management will be alerted so corrective action can be taken.
- We will continue to support research related to humane duck care and handling and incorporate this work into our well-being practices.

### **Maple Leaf Farms Trident Stewardship Program:**

The Maple Leaf Farms Trident Stewardship program includes an internal audit process to uphold the high standards of the duck well-being program. An operation's natural resources management and biosecurity practices are also evaluated through the audit program.



### **Maple Leaf Farms Trident Stewardship Audit Program Mission Statement:**

To validate and document that all operations that care for Maple Leaf Farms' ducks follow the guidelines established through our biosecurity, environmental stewardship, duck well-being and safety programs in a timely, accurate and consistent manner so that the operations are profitable and produce healthy ducks that yield wholesome, high quality products for our customers.

# **Duck Well-Being Guidelines**

## **Introduction**

Maple Leaf Farms is committed to producing high quality products for our consumers. Therefore, each step of the duck life cycle should be managed to promote proper handling, disease prevention through biosecurity, and a comfortable environment that meets the necessary biological needs of the duck. To meet these goals, our ducks are raised in a confinement husbandry system, and our duck well-being guidelines apply to this type of management system.

Caretakers and all members of their staff are responsible for making sure the duck well-being guidelines are met and that ducks are protected and cared for at all times. A written contract, supported by these guidelines, ensures that all parties are clear about their responsibilities with respect to duck welfare.

## **Stockmanship and Staffing**

All Maple Leaf Farms caretakers, whether they are contract producers or employees, should possess a high degree of caring and be committed to responsibly managing their flocks. Training on their specific duties and basic duck biology should help him/her quickly identify and respond to problems.

To ensure good duck well-being, caretakers must have duck care and handling training and pass a certification test prior to assuming responsibilities. Once a caretaker has passed the certification and training, he/she are accountable for adhering to the guidelines. Caretakers should be continuously supervised and trained by Maple Leaf Farms.

The number and skill level of caretakers at each operation should be adequate enough to ensure that the ducks' welfare needs are met. It is essential to ensure that enough time is available within the caretaker's daily work routine for the ducks to be properly inspected and for any corrective action to be taken.

It is important that the caretakers develop a calm, caring and humane relationship with the ducks from an early age to enable them to better adapt to the husbandry systems they will encounter later in life.

## **Section 1 - Guidelines, Training & Certification Process**

For the purpose of our guidelines, each farm is registered under the name of the caretaker. The caretaker is responsible for ensuring that the management practices outlined in these guidelines are followed.

1. All Maple Leaf Farms caretakers must follow our Duck Well-Being Guidelines in order to maintain his/her partnership or association with the company. Maple Leaf Farms reserves the right to terminate the contract of a producer for any violation of the Duck Well-Being Guidelines.
2. Any caretaker associated with Maple Leaf Farms, whether employee or contract grower, found deliberately mistreating a duck will be disciplined up to and including employee or contract termination.
3. Each caretaker will receive updated producer guidelines as changes are made. It is the responsibility of the caretaker to go through these guidelines as part of their contractual obligation and participate in training and certification programs every two years.
4. All caretakers must also make sure his/her staff is familiar with and in compliance with all duck well-being guidelines.
5. All caretakers must allow Trident Stewardship Audit Teams and Maple Leaf Farms representative's reasonable access to their production facilities at any time to conduct audits and make observations of the ducks and their environment.
6. The Trident Stewardship Audit Teams may refuse to do a tour in the presence of a third party that might influence the outcome of the report.
7. In the event that a caretaker fails the certification process, a Field Service Representative will inform him/her as quickly as possible. He/she will receive the full details of the report and reason for failure. Failure to pass the certification process will lead to denial of any Stewardship certification and may lead to the suspension or termination of his/her contract.
8. Maple Leaf Farms will show consideration for caretakers by keeping information provided to Maple Leaf Farms by the caretakers and Trident Stewardship Audit Teams confidential. From time to time, Maple Leaf Farms may issue general reports about our certification process and the results found, but will not link specific information to a particular operation or caretaker without prior authorization.
9. Maple Leaf Farms and its employees or consultants shall not be liable for any losses, damages, charges or expenses the caretaker may incur as a result of our guidelines and the Trident Stewardship Audit Certification process.

## **Section 2 - Duck Care Standards**

The environment that ducks are kept in must be designed to promote duck well-being and protect ducks from discomfort and distress.

### **2.0 Emergency Procedures**

1. Caretakers, in conjunction with MLF representatives, should make contingency plans for emergencies such as fire, power or equipment failure, disruption of supplies, severe weather or quarantines under the Maple Leaf Farms Emergency Poultry Disease Plan. Ensuring an adequate feed and water supply should be a key focus of these plans.
2. Caretakers need to ensure that all staff is familiar with the appropriate emergency action. At least one responsible member of the staff should be available to follow the plans.
3. All duck facilities must have a list of emergency contacts clearly posted near phones or doorways. The list should include numbers for emergency responders, Maple Leaf Farms contacts and other service providers.
4. Caretakers should have access to, and be familiar with advice and information on fire safety and fire prevention, which can be obtained from their local fire department.
5. Duck houses must be constructed and maintained in such a way as to minimize any risk of fire.
6. Caretakers must take steps to prevent fire by properly storing and maintaining chemicals, tools, wiring and equipment.
7. Smoking in duck houses or adjoining areas is prohibited.
8. When buildings are locked, arrangements should be made to allow rapid entry in case of emergency.
9. A log documenting the testing and maintenance of automatic equipment, including alarms, fire extinguishers and stand-by generators should be maintained.
10. An emergency plan in keeping with State, Federal and Maple Leaf Farms guidelines must be followed for the disposal of manure and ducks after a natural disaster. In any such case, a caretaker must contact their field service representative or designated company official.

## 2.1 Flock and Health Care Record Keeping

The Flock Record Card is an essential aid to management.

1. Accurate flock records are essential to success. All caretakers must keep Flock Record Cards for each flock up-to-date and make sure they are accessible at all times.
2. The following data must be available and clearly recorded on the Flock Record Card for the duck welfare auditing program:
  - Flock code
  - Number of ducklings placed
  - Flock movements
  - Information of daily equipment and environment checks
  - Daily mortality, culls, and lame duck counts, with weekly subtotals
  - Ambient temperature and relative humidity recorded twice daily
  - Temperature at time of day-old housing
  - Carbon Monoxide and ammonia levels when periodically monitored and recorded
  - Vaccinations and medications (Company Flock Health Records)
  - Incidents or problems, such as equipment failure, inclement weather, etc., that cause injury, illness or death and the corrective action taken
3. The following records must be posted in the facility entrance:
  - MLF Training Certificate
  - Density/Placement Card
  - Emergency numbers
  - Up-to-date visitor log
  - Water Quality Record
  - Material Safety Data Sheet (MSDS) handbook
4. Health care records, which are logged on Flock Record Cards, must be retained for a period of at least three years from the date on which the medical treatment was given or the date of the inspection. These records will be stored by the company.
5. Current health care records must be made available to Maple Leaf Farms' representatives when carrying out an inspection or when otherwise requested.
6. The Flock Record Cards and/or Field Service Reports are used to document flock health and corrective action, they must include:
  - Field Service Representative consultation and result
  - Veterinary consultation and result
  - Daily mortality and number of culls
  - Medication and vaccination details:
    - Type of medication or vaccination
    - Date of administration
    - How it was administered

## **2.2 General Housing**

1. Caretakers must seek advice on welfare aspects from a Maple Leaf Farms representative before constructing a new facility or modifying existing facilities.
2. Each facility must be routinely inspected by a Maple Leaf Farms representative to ensure the management practices are in keeping with these guidelines, recommendations covered in the Duck Management Handbooks, and SOP's.
3. When a new duck house is planned, a suitable, well-drained site must be selected. Risks from outside environmental factors such as noise, light, vibration, and atmospheric pollution should be taken into consideration. Where appropriate, advantage should be taken of landscape features to provide windbreaks from adverse weather conditions.
4. Indoor and outdoor building materials that the ducks may come into contact with must be easily cleaned and disinfected and not cause injury to the ducks.
5. The partitions between and at the end of the pens must be properly maintained and placed to ensure the ducks have access to feed and water.
6. Housing affects the duck's ability to maintain their normal body temperature. Therefore, all housing should be designed so that its ventilation is adequate to protect the ducks from overheating, particularly when humidity and temperature are relatively high.
7. The type and arrangement of housing should allow for efficient management and inspection of the flock.
8. The interior and exterior of the building (including entryway to duck house), facility grounds and load-out ramp must be cleaned and maintained.
9. The facility should be a safe place for ducks, caretaker, staff members, and MLF employees and representatives.

## **2.3 Ventilation, Temperature Control and Maintaining Air Quality in Duck Barns**

Care must be taken to avoid heat and cold stress in ducklings. Young ducklings are particularly susceptible to temperature extremes, so an even distribution of ducklings in the house will indicate that they are comfortable. Throughout the brooding period the behavior of ducklings must be closely monitored and the brooders adjusted accordingly.

At three weeks and older, ducks can tolerate a fairly wide range of temperatures. Every effort must be made to avoid creating conditions that either cause panting due to overheating or huddling and smothering due to prolonged chilling.

1. Ventilation equipment, heaters, and brooders must be properly maintained.

2. Buildings must be kept so that the ambient temperature, air velocity, relative humidity, dust levels, gas concentrations and other atmospheric conditions do not adversely affect duck welfare. Refer to Grower/Breeder Manual for actual temperature guide.
3. Ventilation rates and house conditions must provide sufficient fresh air for the ducks at all times. Air quality, including dust levels and concentrations of carbon dioxide, carbon monoxide, hydrogen sulfide and ammonia, must be controlled and kept within limits to ensure duck welfare is not negatively affected.
4. Ammonia levels must be monitored during each field service visit and recorded on the field service report.
5. Maximum exposure limits are listed in the chart below:

<u><i>Name of Gas</i></u>	<u><i>Exposure Limit - (in ppm)</i></u>
<b>Ammonia</b>	<b>20</b>
<b>Carbon Monoxide</b>	<b>35</b>
<b>Carbon Dioxide</b>	<b>3,000</b>
<b>Hydrogen Sulfide</b>	<b>5</b>
<b>Relative Humidity</b>	<b>50-70%*</b>
<b>* Upper limit of RH% to not exceed outside humidity by 15%</b>	

6. Gas level measurements should be taken at duck height.
7. Ventilation systems must not cause drafts in the house.
8. Maximum and minimum temperatures must be monitored and recorded daily. Management steps must be taken to avoid temperature extremes.
9. The nursery must be prepared to receive ducklings and meet their temperature needs. Upon arrival, ducklings must be gently placed around brooders so they do not become chilled.
10. Ducks must be protected from drafts, especially during periods of temperatures below freezing; ducks should be protected through the use of insulation and tarps over drafty areas.
11. When the temperature reaches 85°F in the barn, these steps should be taken to avoid heat stress in ducks:
  - Use stirring fans, portable fans, evaporative cooling, misters, water line flushing, etc.
  - Hose roof of duck house with water
  - Improve building insulation to keep temperature down
  - Do not expose to strong, direct sunlight
  - Reduce stocking density in the summer months
  - Check frequently, but do not disturb unduly
  - Increase air speed and ventilation
  - Change feeding pattern

## 2.4 Stocking Densities and Freedom of Movement

There is a close relationship between stockmanship, environmental control and stocking density. Following a particular stocking density is important, but cannot solely guarantee the welfare of the ducks. The stocking density should ensure a duck's physiological and behavioral needs and be established through scientific study and management experience. Our company is committed to continually researching stocking densities and related topics such as floor space and feeder and drinker space.

1. Stocking density for growing ducks is highly dependent upon the type of flooring used in the barn. The table below illustrates the recommended stocking density by floor type.

<b>Recommended Density Limits by Flooring Type</b>			
<b>Flooring Type</b>	<b>Kg/m<sup>2</sup></b>	<b>Lbs/ft<sup>2</sup></b>	<b>Reference Source</b>
Straw or Hardwood Shavings	17	3.48	RSPCA
Pine or Softwood Shavings	22	4.50	DEFRA
Raised Flooring	25	5.12	MLF

2. Stocking density must be calculated by phase of growth within a facility to ensure that the standard maximum is not exceeded. The table below illustrates the recommended stocking density by floor type and live weight (or age) in terms of square feet allowance per duck.

<b>Recommended Density by Age &amp; Floor Type</b>				
<b>Age</b>	<b>Estimated Live Weights</b>	<b>Straw or Hardwood Shavings</b>	<b>Pine or Softwood Shavings</b>	<b>Raised Flooring</b>
0	0.104	0.030	0.023	0.020
7	0.516	0.148	0.115	0.101
14	1.598	0.459	0.355	0.312
21	2.975	0.855	0.661	0.581
28	4.589	1.319	1.020	0.896
35	6.226	1.789	1.384	1.216
37	6.680	1.920	1.484	1.305
42	7.534	2.165	1.674	1.472
<b>* Medium Straight-Run Strain</b>				

Note: Ducks being held on raised flooring just prior to slaughter may be held at a density of 1.2 ft<sup>2</sup>/duck if the holding period is less than 4 hours. The staff should be able to move through the ducks without causing undue stress and the drinker capacity must allow all ducks to have access to water.

3. A density card, listing head per growing area (converted from pounds per square foot), must be clearly and permanently displayed at the entrance of each house. Caretakers must make sure ducks are moved through the building at the designated time to remain in compliance with this standard and avoid overcrowding.

4. Regardless of the type of rearing system, the space must allow for ducks to:
  - move about freely and spread their wings at will
  - show normal preening movements
  - perform normal social interactions
  - carry out normal feeding and drinking movements
  - sit comfortably with other ducks
  - stand with a normal posture
5. A variety of factors need to be taken into account when setting and monitoring stocking densities in duck houses. The following items factor into determining the actual density of flock placements:
  - management programs outlined in the management manual
  - standard operating procedures (SOPs)
  - the facility and equipment
  - the training/skill of the caretaker
  - the history of flock performance
6. Stocking density must be based on the abilities of the management system to properly maintain the needs of the duck as measured by performance data and duck behavior. Mortality, culls, broken bones, bruising, condemnation, sitters and hock burn records will be used to determine if stocking density should be adjusted.
7. Abnormal behavior such as feather picking should be documented on the Flock Record Card and remedial action taken to reduce the problem and enrich the environment.
8. If recurring disease or environmental problems, such as excessive heat/humidity due to inadequate ventilation or poor litter quality, arise in a particular building or system, stocking density in subsequent flocks should be reduced to lessen the chance of recurrence.

## **2.5 Lighting Management**

1. Lighting levels must allow all ducks to be clearly seen during an inspection.
2. Ducks must be exposed to a minimum of 18 hours of light each day.
3. Where the natural light available in a building is insufficient to meet the physiological and behavioral needs of any ducks being housed in it, then appropriate artificial lighting shall be provided.
4. Even though ducks can see very well under low intensity lighting, they should be observed during daylight hours to determine if the lighting in the house is adequate enough to allow them to normally eat, drink, investigate their surroundings and stimulate activity with other ducks.
5. To prevent undue stress during a power outage, caretaker should begin conditioning their ducks on day three. The conditioning period should consist of a 24-hour rhythm with one hour of uninterrupted darkness.

6. Ducks should be allowed an appropriate period of rest from artificial lighting. The reduced lighting period should be categorized as lighting less than 1 lux.
7. Care should be taken to avoid excessive light intensity that can stimulate abnormal behavior such as feather picking.

## **2.6 Mechanical Equipment and Services**

The use of complex equipment reduces the ducks' ability to use instinctive behavior. Therefore, a conscientious staff, skilled in animal husbandry and the use of equipment, must be available in case of equipment malfunction.

1. Ventilation, heating, lighting, feeding and watering systems and all other equipment or electrical equipment must be designed, sited and installed to avoid risk of injuring the ducks or personnel working within the facility. If a safety or well-being issue is identified, the caretaker must take prompt action to correct it.
2. Prior to unloading the ducklings, caretakers must make sure that all mechanical systems are functioning properly. For example, gates are secure, all feeders are full, and all nipple lines are at duck level.
3. All automated or mechanical equipment essential for the health and well-being of the ducks including feed hoppers, drinkers, ventilating fans, heating and lighting units, fire extinguishers and alarm systems must be kept clean and inspected daily to ensure the equipment is in good working condition.
4. All automated equipment should have an alarm system to warn the caretaker of failure.
5. When defects in automated or mechanical equipment are discovered, they must be fixed immediately. During the period when corrective action is being taken, alternative feeding, watering and lighting methods must be provided and maintained.
6. Mechanical ventilation systems should have an appropriate back-up system that guarantees good air quality in the event of system failure.

## **2.7 Litter / Raised Flooring Management**

All flooring should be designed, fitted and maintained so it does not cause injury or distress to the ducks. Corrective action must be taken if either occurs. In addition, the flooring should be designed so that it can be easily cleaned since buildings and equipment, including flooring, must be thoroughly cleaned and disinfected before the next placement of new birds to prevent the build up of parasites and other pathogens.

### **Litter:**

The amount of litter needed is dependent upon three factors: ventilation system, stocking density and weather.

1. Caretakers must provide each flock with clean, fresh wood litter that easily absorbs moisture, and does not irritate the eyes or breathing of ducks or caretakers.
2. Litter from a new source/supplier must be sampled and sent to the Maple Leaf Farms laboratory for evaluation prior to use.
3. Litter (saw dust) samples should be taken periodically to assess quality.
4. Caretakers must check the barn twice each day to ensure that litter does not become excessively wet or infested with mites or other harmful organisms.
5. Litter should be maintained in a dry, loose and friable state; moldy or wet litter must not be used.
6. Manure laden or wet areas must be re-bedded with shavings as often as needed to maintain a high standard of litter quality.
7. Upon entering a house to re-bed ducks, the caretaker should quietly and gently shoo the ducks away. Bedding must be spread away from the ducks, but never on the ducks.
8. Well-designed equipment for storing and bedding is important to maintain good litter quality.

#### **Raised Flooring:**

Caretakers must provide each flock with clean flooring, be it plastic slats or plastic coated wire.

1. The flooring must not cause discomfort, distress or injury to the ducks.
2. Flooring must be inspected daily and all damaged areas must be repaired immediately.
3. Flooring must be replaced when the needed repairs are excessive.
4. Daily scraping, or removal of manure from under the raised flooring, is recommended to control noxious gas emissions.

## **2.8 Noise Control**

Young ducklings will adapt to normal sounds of the environment, if introduced early in life.

1. The sound level of ventilation fans, feeding equipment and other machinery within and around the perimeter of the house, should be minimized and taken into consideration during construction, placement, operation and maintenance.
2. Sudden and unnecessary noises must be avoided.

## **Section 3 - Health, Veterinary Care and Site Biosecurity**

Ducks must be protected from pain, injury and disease. The environment that ducks are raised in must promote good health.

### **3.0 Site Biosecurity**

Maintaining high biosecurity standards is one of the most important steps producers can take in promoting the well-being of their ducks. Proper biosecurity measures can protect producers from introducing diseases into their duck flocks.

1. Visitors should be admitted on the farm only when authorized by company officials. Caretakers must keep a log of all visitors including their name, date and time of arrival, and purpose of visitation.
2. Visitors must confirm that they have not had contact with other poultry, hog, or exotic bird facilities in the 72 hours prior to their visitation. If caretakers believe that the visit may compromise the health and welfare of the ducks, they must discontinue the visit.
3. Caretakers must provide all visitors with protective clothing and must provide hand sanitizer, barrier footwear and/or boot baths prior to entering any duck facilities.
4. Caretakers must eliminate their contact with other poultry, hogs, or exotic birds.
5. Caretakers should wear farm-dedicated clothing and hats.
6. Boot baths and/or dedicated boots must be properly maintained and utilized.
7. Hand sanitizing stations must be maintained and used by caretakers.
8. Ducks must not have access to or be kept in field pens or pastures due to the significant biosecurity risk of being exposed directly to wild birds and other animals.
9. All pets and other animals are not allowed in the facilities.
10. The duck house perimeter must be kept free of weeds to prevent pests from nesting. Horses and cattle must be kept/fenced a minimum of 10 feet from the barn.
11. The feed bin area must be clean and free of spilled feed.
12. Bird nests and houses must not be present in or around a duck house.
13. Biosecurity signs must be posted on facility doors to caution visitors.
14. An Integrated Pest Management Plan, including rodent control, must be implemented. Bait stations must be present, filled with proper rodent control measures and set 50 feet apart.
15. A Field Service Representative must approve any use of pesticides and records detailing when and how the pesticide was used must be kept.

16. All breaches in biosecurity must be immediately reported to a Maple Leaf Farms Field Service Representative.

### **3.1 Health and Hygiene**

Health and hygiene programs and SOP's designed to prevent and control disease or injury must be used throughout the entire production cycle.

1. All caretakers must use the recommended health plan provided by Maple Leaf Farms that has been developed with their Doctor of Veterinary Medicine (DVM). The plan is reviewed annually and any time a serious disease outbreak occurs. It includes:
  - Vaccination programs for *duck viral enteritis*, *duck viral hepatitis*, *Salmonella*, and *Reimerella anatipestifer*.
  - Antibiotic therapy according to veterinary prescription
  - Probiotic programs
2. The use of any antibiotic or drug must be documented by a prescription.
3. Maple Leaf Farms does not permit the use of antibiotics or drugs in its feed formulations.
4. Health and hygiene SOP's, which support Maple Leaf Farms overall health program, should be reviewed against performance and updated accordingly. These written guidelines should address the following:
  - External and internal parasite control programs
  - Biosecurity arrangements on-farm and in transport
  - Isolation procedures
  - Feed and water nutrient supplementation
5. Duck houses and equipment must be cleaned, disinfected and inspected before restocking to reduce the danger of transmitting diseases between flocks.
6. To maintain good flock health, caretakers must also:
  - Provide protection from adverse weather conditions, predators, rodents, other animals and wild birds
  - Maintain good water, feed and air quality
  - Eliminate sharp corners, projections and materials which may be harmful to the ducks
  - Take corrective measures that prevent ducks from developing lameness or injuries
  - Regularly inspect the entire flock.

### **3.2 Inspection**

All ducks shall be thoroughly inspected at least twice daily in order to reduce the risk of well-being problems. Each inspection must be marked on the Flock Record Card.

1. Caretakers are responsible for making sure that all staff is knowledgeable about duck well-being and that a regular work routine is established for inspecting flocks at least twice daily. A slow, methodical pattern should be established for daily inspections. Care should be taken to go the same direction and follow an established pattern each time.

2. Young ducks, in the first few days of life, must be inspected more frequently.
3. Flocks must also be inspected more frequently during sudden weather changes following severe weather or if they are experiencing health problems.
4. Prior to entering a house the caretakers must knock on the door to warn the ducks of their presence to prevent crowding and injuring the ducks.
5. Ducks will easily respond to being called or hearing human voices. Caretakers should use their voice as a means to allow the ducks to adapt to their presence during routine inspection visits.
6. While it is not possible to examine each duck individually during routine inspection, caretakers should carefully note flock behavior, which is a good indication of flock health. If the flock is not exhibiting normal behavior, further observation or investigation may be needed.
7. In order to ensure a thorough inspection, the caretaker should walk within 10 feet of every duck and encourage it to move, taking care not to frighten the ducks. The aim should be to pass close enough to the ducks to see them clearly and for them to be alert enough to move away. This should enable the identification of any individual that is sick, injured or weak.
8. Ducks should appear healthy and show normal behaviors. Signs of good duck health depend on age, sex, and breed. Important indications of good health are as follows:
  - Good posture
  - Vigorous movements if disturbed
  - Clean and healthy skin
  - Good plumage
  - Well-formed shanks and feet
  - Effective walking
  - Preening
  - Active feeding and drinking
  - Clear, bright eyes
9. The early symptoms of stress or ill health can be the following:
  - Head pulled into the body
  - Huddling, appearing chilled
  - Changes in feed and water intake
  - Lack of preening, general inactivity
  - Diarrhea
  - Problems with coordination (walking/sitting)
  - Drooping of the eyelids, reduced or squinted eyes
  - Puffy head and lower live weight
10. Expired ducks or ducks showing considerable difficulty in walking, or with malformations, severe wounds, fractures, prolapsed vents or other conditions, must be promptly removed, treated if possible or humanely euthanized. These ducks should be properly disposed of.

### **3.3 Disease Control**

A disease challenge may first be noticed by a change in water consumption, reluctance to eat or changes in litter quality or fecal dropping appearance. Therefore, it is a good management practice to keep daily records of water consumption and where possible, feed intake.

1. Caretakers must use the health management resources provided or approved by Maple Leaf Farms including vaccines, medicines and veterinary consultation.
2. Caretakers must keep record of all health management practices. These records may be audited and must be available for review by Maple Leaf's representatives.
3. Caretakers must practice strict hygiene and disinfection procedures. All parts of the duck house, including all equipment and loading ramp, must be thoroughly cleaned and disinfected between flocks.
4. Caretakers who observe that ducks are not in good health, or are showing obvious signs of abnormal behavior, must immediately take steps to establish the cause and take appropriate corrective action.
5. If mortality exceeds 0.3% in 24 hours, caretakers must notify Maple Leaf's Field Service Representatives. If the corrective action taken is not effective, expert advice of a veterinarian must be sought.
6. Recurring injuries that may be related to the environment must be investigated and remedied immediately to prevent further injury.
7. Where possible, the site should be managed so that all houses are emptied simultaneously to facilitate effective cleaning and disinfection. An "all in – all out" approach with periods when there are no birds on site will also help to reduce the incidence of disease.
8. All Grow Out flocks will be monitored for Avian Influenza (under the NPIP program) and Salmonella between 21-42 days of age via cloacal swab. Environmental sampling will take place throughout the year.
9. All Breeder flocks will be monitored for Avian Influenza (under the NPIP program) and Salmonella every 180 days beginning at 20 weeks of age via cloacal swab. Environmental sampling will take place throughout the year.

### 3.4 Euthanasia

1. Caretakers certified by Maple Leaf Farms must be properly trained in culling techniques. Depending on the age and size of the ducks, the euthanasia shall be performed by one of the following AVMA-approved methods:
  - 0-7 Days of Age—
    - Upon arrival at the farm, day-old ducklings must be thoroughly inspected for signs of injury or deformities. All ducklings with obvious signs of injury or deformity must be removed and humanely euthanized.
    - Young ducklings may be properly culled by placing the neck against a corner edge and applying pressure until the vertebrae are severed.
  - Older than 7 Days of Age —
    - Ducks can be properly culled by holding both feet of the duck with one hand and its head just under the base of the skull with the other hand. While pulling its feet and inverting the head, apply force until the vertebrae in the neck are separated.
    - An alternative method for larger ducks is to hold the duck by the head. While the duck is hanging, apply a swirling motion so that the neck rotates to the point that the cervical vertebrae separate as a result of the combined forces of rotation and body weight. After separation, continue to hold the duck's neck tight to cut off the circulation of blood to the brain. The caretaker's wrist joint should apply the rotational movement while the elbow and arm movement is kept to a minimum to break the neck vertebrae swiftly and eliminate any suffering.
2. Euthanasia must be done without delay and without causing undue pain, agitation or distress.
3. Culled ducks must be immediately removed from the house or stored in a covered container until next inspection.
4. Culled ducks must not be stored in covered containers more than 24 hours.
5. If a Field Service Representative has to remove more than 1.5 cull/dead birds per 1,000 ducks placed in a single visit, it will be noted as a culling problem on a service report and a meeting will be arranged to discuss the problem. If, subsequent to this meeting, negligence on the part of the caretaker is determined, a Farm Noncompliance Report will be issued which could lead to loss of a contract or in the case of a company farm, staff dismissal.
6. If a caretaker exhibits reluctance to follow the humane culling guidelines, it will be viewed as a contract violation. If the problem persists, the Farm Non-Compliance Report system will be followed and his/her contract may be terminated.

### **3.5 Vaccination**

Routine assessment of vaccination programs must be made under the supervision of a Field Service Representative and veterinarian. Assessment should review the types of diseases, age, method of vaccine delivery, etc.

1. Only caretakers who are competent and trained in vaccinations, injections and similar procedures should administer them.
2. Vaccinations, along with the age of flock and the dosage, must be recorded on the Flock Record Card at the time it is administered.
3. Caretakers should raise the temperature of the duck houses by two degrees prior to vaccinating the ducks to help the ducks better cope with post vaccination stress.
4. Vaccination holding pens should be an adequate size to avoid crowding and injury to the ducks. A corral should be designed to hold up to 200 ducks.
5. Caretakers moving the backboard of the corral must do so gently to avoid crowding or injuring the ducks.
6. Care should be taken to avoid injuring the ducks during corralling and handling through the vaccination process.
7. Caretakers that are administering the vaccination must gently place the ducks on the floor after vaccination.

### **3.6 Therapeutic Intervention**

The systematic use of medications to compensate for poor hygienic conditions or management practices is unacceptable.

1. Records of medications, probiotics or any health treatment must be noted on the Flock Record Card.
2. Medications must be prescribed and used under the direct supervision of a certified and licensed veterinary professional. Maple Leaf Farms' veterinary consultants will prescribe optimal doses and length of treatments in order to minimize chances for the development of microbial resistance to any given medication.
3. Anti-microbial sensitivity profiling used to monitor the effectiveness of antibiotics will be done as directed by Maple Leaf's veterinary consultants.
4. All prescribed medications must be fully administered to the flock listed on the prescription. Excess prescription medications must not be kept on the premises.
5. Medications must be used in accordance with the directions of Maple Leaf Farms veterinarians so that farms are in compliance with the pre-processing withdrawal regulations. The withdrawal guidelines for Maple Leaf Farms ducks are more stringent than those given by the drug manufacturer and USDA.

6. Medications must be administered orally through the drinking water or through subcutaneous injection by a trained person and supervised by a certified Field Service Representative or farm manager.
7. Any agricultural chemicals used must come from the approved list supplied by Maple Leaf Farms, which is reviewed by a veterinarian. The use of any chemical must follow manufacturers' recommendations and safety requirements to the application intended.
8. Measures to control diseases caused by external parasites should be taken by using the appropriate parasiticides.
9. Medications and chemicals must be properly stored in their original containers. Medical, chemical, and household containers should only hold their original content and nothing else.
10. Necropsies should be carried out in cases where mortality levels are significantly higher than targets and records include a bacterial isolation. Maple Leaf Farms keeps such records within its laboratory computer system so they are readily available to technical staff and veterinarians.

## Section 4 - Nutrition: Feed and Water

Hunger, thirst and malnutrition can compromise the health and well-being of ducks. Therefore, fresh water and feed must be available so that ducks do not suffer from these conditions.

### 4.0 Feed

Maple Leaf Farms feed mills follow Good Manufacturing Practices and are audited annually by a third party. Maple Leaf Farms provides its ducks with balanced feed formulations based on the most current science. These diets are intended to promote optimum reproduction, health and growth, as well as meet important physiological needs of ducks at various production stages and promote a positive state of well-being. A new feed formulation is not implemented until thorough testing is completed to ensure that it:

- Meets all macro- and micronutrient requirements of ducks
  - Contains no impurities, animal protein by-products, hormones, antibiotic or sulfa drugs, mycotoxins, or growth promotants
  - Considers the Nutrition Research Council's recommendations cited in the latest edition of the Nutrient Requirements of Poultry
1. All caretakers must use feed manufactured and delivered by Maple Leaf Farms approved feed mills.
  2. No other substance can be provided to the duck without the approval and supervision of a veterinarian.
  3. All ducks must have access to feed at intervals appropriate to their physiological needs (at least once daily) except where a veterinarian directs otherwise.
  4. All caretakers must follow feeding schedules as outlined in the Grower/Breeder Manual.
  5. Feed must be withheld 3-4 hours prior to load out.
  6. Ducks are very sensitive to most toxins. Moldy feeds must not be fed.
  7. Stale or contaminated feed must not be allowed to accumulate and must be replaced immediately with fresh feed.
  8. Feed should be routinely checked to ensure pellet quality is sufficient and the amount of fines is kept to a minimum. Feed quality issues should be reported to the Field Service staff.
  9. Methods of feeding that may cause injury, distress or disease to the ducks or may result in development of physical or physiological conditions detrimental to welfare are not permitted.
  10. In normal circumstances, any changes in diet should be introduced gradually. Sudden changes in the type, quantity and make-up of feed and feeding procedures should be avoided except in cases of emergency or in the case of therapeutic or prophylactic treatment administered per veterinary advisement.
  11. All feed bins should be properly maintained and labeled by feed type.

12. Feed bins should have the correct bin slide adjustment for the feed type.
13. Prior to duckling placement caretakers must ensure that all feed trays have feed and are positioned where ducklings can easily find them.
14. Care should be taken with any change of the production system, such as movements to a different area, to ensure that all ducks can easily find the feed.
15. Feeders must be constructed and maintained so ducks have easy access to feed at all times. Feeders must be kept clean and free from litter/manure.
16. Since the number of ducks placed is dependent upon housing size, feeder availability, and drinker space, feeders should be repaired or replaced immediately if there is a problem to avoid competition among ducks.

#### **4.1 Water**

1. Caretakers must make sure that all drinkers and waterlines are working properly when ducklings arrive and that ample clean, fresh water is available at all times.
2. Supplemental drinkers must be provided for the ducklings for the first three to four days of life and phased out to nipple drinking systems by the end of the seventh day. Supplemental drinkers must be kept clean and free from litter/manure.
3. All ducks must have access to a suitable water supply of fresh drinking water each day, unless otherwise directed by a veterinarian.
4. Watering systems must be checked twice daily.
5. Care should be taken with any change of the production system, such as movements to a different area, to ensure that all ducks can easily find water.
6. Water meters must be fitted to each house to enable daily monitoring of water usage. Daily records of water consumption provide an early warning of potential problems, making a water meter a valuable management tool.
7. Ducks must not be provided water that contains any substance or is delivered via a method that may cause them unnecessary suffering or injury.
8. During periods of extremely hot weather, steps must be taken to lower water temperatures. During extremely cold temperatures, steps must be made to minimize the risk of having drinking water freeze.
9. Since the number of placed ducks is dependent upon housing size, feeder availability, and drinker space, watering systems should be repaired or replaced immediately if there is a problem to avoid competition between ducks.

## **4.2 Equipment**

1. Feeding and watering equipment must be designed, constructed, operated and maintained so that it:
  - Does not cause injuries to ducks.
  - Operates in all weather conditions
  - Can be adjusted to control consumption
  - Prevents the possibility of contamination
  - Eliminates competition.
2. Supplemental drinkers must be available and maintained to provide adequate water to the ducks from placement until trained on nipple water use.
3. Nipple line height should be adjusted so the smallest duck's head and neck are at a 45° angle to the line. (Refer to Grower/Breeder manual for diagram.)

## **4.3 Feed Withdrawal**

1. In accordance with the USDA regulations, ducks must not have access to feed 3-4 hours prior to loading in order to prevent fecal contamination in the processing plants.
2. Feed must not be withheld from ducks for more than 12 hours. This period of 12 hours must include catching, loading, transportation and unloading time.
3. Ducks must have access to fresh drinking water up until the time of loading and then again at the holding facility.
4. The time period ducks are without access to water during live haul must not exceed 12 hours.

## **Section 5 – Security**

Security is an important aspect of duck well-being. Controlling unwanted visitors from entering facilities prevents contamination, disease spread, mischief, and crime. The following are general recommendations for various types of duck facilities:

1. Security should be assigned to knowledgeable individuals.
2. Regular security meetings/training sessions should be held with staff.
3. The facility should be regularly audited for security.
4. Contact information for local police/fire/health/homeland security should be posted.
5. All facility doors should be secured and protective perimeter fencing in place when appropriate.
6. All openings should be secure and entrances kept to a minimum.
7. Facilities should have a restricted access policy.
8. Visitors must have valid reasons for the visit and facilities should verify unknown visitor by requesting a copy of photo identification (driver's license).
9. Visitor vehicles, whether incoming and outgoing, must be confined to a visitor parking area away from production areas.

## Section 6 – Breeding: General Management

Most of the duck care standards previously covered in this document apply to the care and management of breeding ducks. When dealing with breeder duck welfare, however, special consideration should also be given to the strain of duck being cared for and the husbandry system implemented on the farm.

Formal breeding programs should pay particular attention to selection criteria that may improve the health and welfare of breeds or strains of ducks. A selection program should include fitness parameters and checkpoints that allow the ducks to adapt to biological and environmental modifications. It should also include strategies for selecting against traits that would negatively impact duck health such as cardiovascular disorders, leg abnormalities and undesirable behavioral traits.

1. Caretakers must not practice any natural or artificial breeding procedures that may cause suffering or injury. Furthermore, no duck shall be kept for breeding purposes if doing so would have a detrimental effect on its health or welfare as outlined under the General Guidelines, the Breeder Manual and Standard Operating Procedures (SOPs).
2. Ducks, with the exception of breeder ducks that are part of a selective breeding program, should not be kept in individual cages. When cages are used for selective breeding, caretakers must ensure that the duck's needs are met and should keep periods of confinement to a minimum.
3. Mortality, temperatures and egg production must be recorded on the appropriate form.
4. Water lines must be flushed twice daily and recorded on the water meter record. The water meter record should be filled out before and after flushing the line.
5. Feeders and bins must contain the correct feed according to the age of the bird.
6. Breeder flocks are subject to controlled feeding to promote duck and egg health. Caretakers must ensure that the feeding system is operating in accordance with the feeding schedule provide by Maple Leaf Farms.
7. Caretakers must look for health problems during their daily flock inspections. Because breeder ducks are fed on a schedule, unfit ducks may easily be spotted during feeding times. The following may indicate that there is a flock health problem:
  - Abnormal behavior
  - Abnormal growth pattern
  - Changes in egg or egg shell quality
  - Drops in egg production
  - Changes in feed and water consumption
  - External parasites
  - Diarrhea or other changes in feces

8. Prior to the onset of lay, an adequate number of nest boxes must be at floor level so they are accessible to ducks, but do not cause injuries.
9. Caretakers must change the nest material a minimum of once a week to keep nests dry and promote egg cleanliness.
10. Caretakers must collect eggs every morning. As ducks age and lay eggs later in the day, caretakers should plan a second egg collection to prevent eggs from being broken or eaten.
11. As they collect eggs, caretakers must clean shavings, manure and other debris off of the eggs and place them air cell up in a tray.
12. All caretakers must have boots that are worn only in the duck barn.
13. Human food containers are not allowed in the duck houses.

## **Section 7 – Hatchery: General Management**

### **7.0 Hatchery Emergency Procedures**

1. Each hatchery must have a list of emergency telephone numbers posted near all telephones. This may include the number for emergency responders, Maple Leaf contacts or other service providers.
2. Each hatchery must have a back up generator capable of sustaining emergency power to incubation and hatching equipment in the event of a power outage. A weekly generator test log must be maintained.
3. Hatchery managers and supervisors must have contingency plans for getting the hatcheries back up and running in the event of a fire, building damages, equipment failure, disruption of supplies, etc.

### **7.1 Health & Hygiene**

1. Visitor access must be limited and a visitor log must be maintained and available for inspection.
2. The rooms where ducklings are held or serviced must maintain a room temperature range of 75° to 80°F.
3. A Salmonella test must be performed during the last three days of hatch. Problems must be monitored, documented, and corrective action taken to reduce them. A Salmonella control action plan must be available to guide staff action in the case of isolation.
4. The hatchery must be cultured once a week for total plate count to assess hygiene status. Problems must be monitored, documented, and corrective action taken to reduce them.
5. All staff and visitors must change into uniforms, which are color coded to functional area and laundered after each use, and footwear dedicated to the facility.
6. Functional hand sanitizers and boot pans must be available upon entry to egg store rooms and egg incubation areas. A hand washing facility must be available for staff to use prior to leaving duck handling areas.
7. All hatchery and egg transport vehicles must be cleaned and disinfected daily. These vehicles must be equipped with tire disinfection equipment that can be used between farms.

### **7.2 Duck Handling**

Currently, Maple Leaf Farms does perform infrared bill treatment on day-old ducklings because studies show it causes less stress than bill trimming. Our company continues to study alternatives or improvements to bill treatment and how the growing environment may affect pecking behavior.

1. All hatchery employees must complete a training and certification program that outlines how to properly handle ducklings. Employees who do not follow these guidelines or are found abusing the ducklings will be subject to disciplinary action up to and including termination.
2. Hatchery employees must gently handle ducklings by their bodies, not by the neck, wings, legs, etc. Ducks must not be dropped or released in a way that may cause injury.
3. Only trained and certified employees can perform infrared bill treatment, sexing or vaccinations.
4. Employees should ensure that no ducks are injured when nesting one duck box on top of another.
5. All incidences of duck injury must be recorded and reviewed for trends. Remedial action must be taken to improve the situation.
6. At no time should duckling density exceed 20 ducks per square foot from hatching through placement.
7. Ducklings must be inspected for fitness when they are removed from hatcher baskets. Poor quality ducklings must be segregated.

### **7.3 Transportation**

1. Ducklings for farm placement must be healthy and vigorous.
2. Ducklings must be placed in suitably ventilated boxes that are not overcrowded, in direct sunlight or in the path of cold draughts. This should be assessed periodically using rectal temperatures.
3. Stacks of boxes in the holding area should never be closer than six inches to one another.
4. Ducklings must be transported in climate-controlled vehicles designed to meet the duckling's welfare requirements of proper air exchange and temperature control.
5. Prior to loading the ducks, the truck must be clean and up to temperature appropriate for day-old ducklings. Equipment checks must be conducted and documented to ensure all equipment is operating properly.
6. After loading duck boxes must be checked to ensure they are secure within the truck.
7. Environmental conditions must be monitored during transportation with irregularities documented and corrective action noted.
8. Drivers must drive responsibly to ensure that the ducklings are not injured. Drivers must perform pre-trip inspections of the vehicle and support equipment, making necessary adjustments and repairs prior to the loading ducks.

9. Ducks must be transferred to brooders as soon as possible and provided access to water and feed.

#### **7.4 Duckling and Embryo Euthanasia**

1. Maple Leaf Farms hatchery employees must be trained to identify unhatched eggs and unfit or sick day-old ducklings. These ducklings are segregated and subject to humane euthanasia through an AVMA-approved method.
2. Culls that have been segregated must be euthanized within 15 minutes.
3. Hatchery waste must be treated by a skilled operator to ensure any duckling or living embryos are instantaneously euthanized.

#### **7.5 Record Keeping**

1. Hatchery managers must keep up-to-date records on:
  - Hatch data
  - First two week farm loss
  - Moisture loss at transfer
  - Power failures
  - Temperature levels
  - Humidity levels
  - Safety concerns
  - Special incidents
2. Weekly hatchery hygiene logs must be reviewed and corrective action documented in weekly hatchery reports.
3. A daily checks log must be maintained and available for inspection.
4. Daily incubator and hatcher monitoring logs must be maintained. These should track the results of at least daily inspections and document corrective maintenance or adjustments.
5. Hatch must be monitored each week. When hatch is below a 70% minimum standard, management must investigate the root cause of such poor performance through a hatch residue break out, in-depth equipment operation checks, and trends with individual breeder flocks to determine if it is a mechanical or disease issue. Results of these investigations are to be published in the hatchery weekly reports.
6. Hatchery records will be subject to an internal and external auditing process as part of Maple Leaf Farms' Stewardship Audit Certification process. Audits should be performed at least twice annually.

## Section 8 - Market Duck Transportation

Transportation systems must be designed and maintained with duck well-being in mind. Personnel involved in the transportation process must be trained and certified.

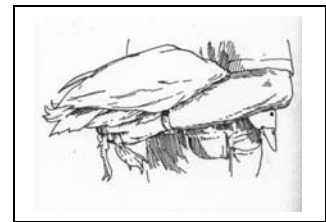
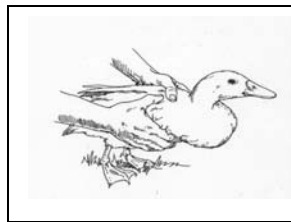
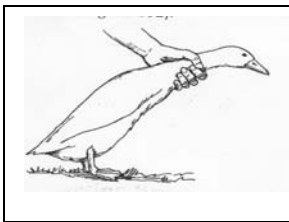
### 8.0 General Transportation

1. Caretakers must not load, transport, or unload ducks in a way that may cause injury or unnecessary suffering.
2. Caretakers must not transport ducks that are unable to walk due to injury or illness. These ducks, even if they have reached process weight, should be humanely euthanized on the farm.
3. Field Service Representatives should be alerted by drivers when caretakers routinely load ducks that do not meet the company's criteria for transportation or processing. The caretaker may receive warnings, Farm Noncompliance Reports or discipline up to and including contract termination for failing to properly manage ducks that should not be transported.
4. Caretakers involved in the transportation of ducks must ensure that they are moved without delay to the next destination.
5. Transport vehicles must be constructed, maintained and operated to ensure that:
  - Adequate ventilation and air space is provided
  - Protection from adverse weather and temperature is provided
  - Appropriate inspection and care of the ducks may be conducted
  - The protrusion of the heads, legs or wings is restricted
6. It is important to make use of the natural airflow patterns around a moving vehicle to optimize conditions for the ducks during transportation. Measures must be taken to ensure the efficient removal of excess heat and water vapor from the vehicle.
7. Every effort should be made to coordinate loading and transportation schedules with production requirements in order to limit the time ducks are held in transport trailers. Time from loading to unloading should not exceed 12 hours. When this time exceeds 12 hours, the cause should be documented and corrective action taken whenever possible.
8. Ducks must be unloaded as soon as possible after arrival to the processing plant.
9. If a loaded vehicle is stationary for any length of time, caretakers should take the following steps:
  - Move live haul trailers so that ducks are not exposed to direct sunlight
  - Set up supplemental mechanical ventilation to extract air from the vehicle in order to maintain acceptable levels of temperature and humidity.
  - Move vehicles to provide adequate air flow through the trailer.
9. After unloading, ducks must be protected from adverse weather conditions and be provided with adequate ventilation.

## 8.1 Handling

The proper handling of ducks requires skill. Only competent persons who have been appropriately trained and certified should be responsible for handling ducks.

1. All live haul drivers, company and contract managers, and transportation staff must be trained and certified. If he/she mishandles ducks, disciplinary action may be taken up to termination of contract or association.
2. In hot weather, any handling or movement of ducks must be carried out during the coolest periods of the day (e.g. early morning or late evenings).
3. Caretakers must be calm, cautious and exercise care when handling ducks to avoid creating panic and stress that could bruise, injure or lead to smothering in the flock.
4. When ducks are being moved, they, not the caretakers, should set the pace.
5. Where possible, ducks should be encouraged to walk so handling can be kept to a minimum.
6. Caretakers may use flags to guide the ducks, being careful not to cause panic with excessive noise or sharp movements.
7. Ducks must be handled with care since their legs and wings may be injured easily. Therefore, caretakers should:
  - Avoid running them on rough ground or in areas where they will trip over feed troughs and other obstacles.
  - Use a small catching pen or V-shaped corner.
8. Caretakers must carefully catch and carry ducks using the following techniques:
  - Ducks should be caught by grasping the duck securely by the lower neck and lifting it from the ground. A duck properly lifted by the neck will quickly become calm allowing the caretaker to carry them for short distances without injury.
  - Small and medium sized ducks may be picked up and held with a thumb over each wing with hands encircling the body.
  - When carrying ducks for extended distances, caretakers should place one hand over each wing to subdue them, and then slide one hand under the breast and secure the legs. The duck's weight should be on the caretaker's forearm with its head pointed back between his/her body and arm, and its wings pinned against his/her side. When the wings and feet are held securely, there is little possibility that either you or the duck will be injured.
  - Ducks must never be caught by their legs or wings, carried by just their legs or carried with their heads hanging downward.
  - See illustrations below:



Illustrations from *Storey's Guide to Raising Ducks* by Dave Holderread  
Copyright © 2001 by W. David and Mildred M. Holderread  
Used with permission from Storey Publishing LLC, North Adams, MA

9. Tired ducks weighing more than 1.8kg (4 lbs) can be carried individually by the lower neck. If the distance is more than 7 meters (20 feet), it should be placed into and transported by a tote.
10. Maple Leaf representatives may perform regular, unannounced audits of the live haul process documenting observations in accordance with the formal audit process in place.

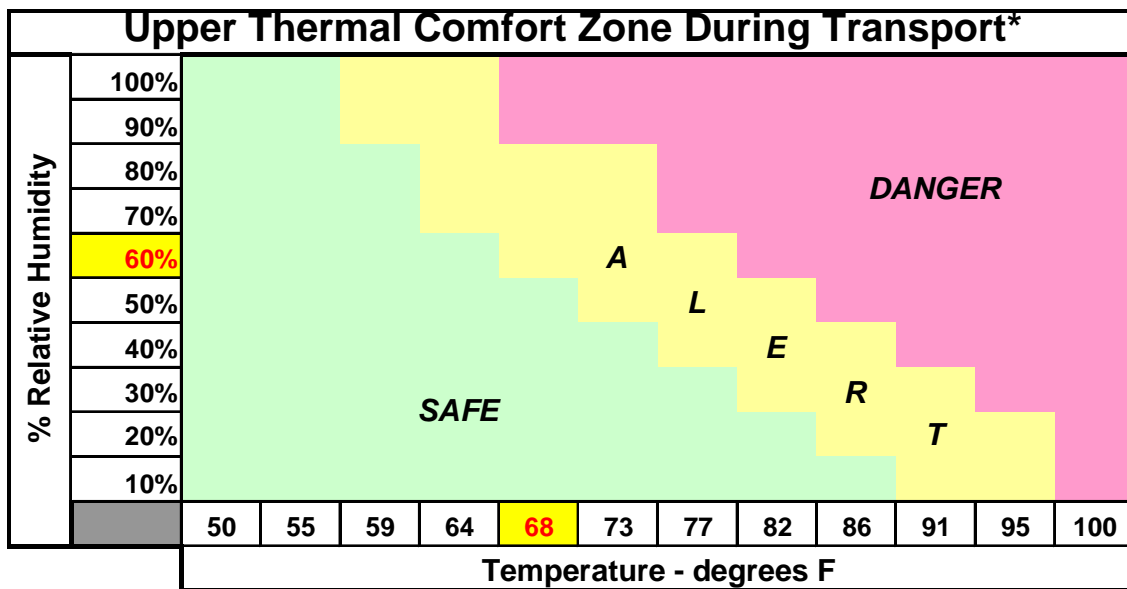
## **8.2 Live Haul Vehicles and Loading Equipment**

1. All loading ramps must be properly constructed and maintained to allow for safe and easy loading. The loading ramp floor must be made of material that provides good traction to both ducks and employees.
2. All live-haul trailers and carts must be constructed so that they provide efficient and safe transportation, as well as easy cleaning and disinfecting.
3. All live haul trailers, load out ramps and carts must be washed and sanitized on a regular basis.
4. The design, size and state of repair of any trailer used to carry ducks must allow them to be loaded, transported and unloaded without injury.
5. All equipment that the duck comes in contact with must be regularly inspected to prevent injuries.
6. Trailers must be labeled with maximum density

## **8.3 Protection from Adverse Weather Conditions**

1. Ducks must be protected from bad weather and from other harsh elements. Ducks must be protected from strong, direct sunlight during hot weather conditions and likewise, from wind and precipitation during cold conditions.
2. Curtains on the live haul trailers must be used to provide protection from the sun throughout the year.
3. The transport of ducks shall be canceled or re-scheduled during periods of excessive hot or cold conditions. Ducks must not be transported when temperatures are anticipated to exceed 95° F or be below -10° F.
4. The following accommodations should be made to protect ducks from extreme temperatures.
  - Live haul supervisors and processing plant managers should always keep in contact with each other and with drivers and caretakers during extreme weather conditions in case transport or processing needs to be rescheduled.
  - If temperatures are expected to exceed company limits at the time of load out, these load outs must be rescheduled so ducks can be transported during the warmest times of the day when it is too cold or during the coolest part of the day when it is too hot.

- Blizzards and snow storms should always be anticipated ahead of time to allow drivers, caretakers, and live-haul supervisors to reschedule transportation during safer weather conditions.
  - Live-haul trailers are equipped with plywood boards that must be inserted in accordance with the following temperature guidelines.
    - Temperatures of 30°F to 20°F -- 25% of the trailer should be covered.
    - Temperatures of 20°F to 0°F -- 50% of trailer should be covered.
    - Temperature below 0°F -- 75% of trailer should be covered.
  - Additional accommodations at the processing plant should be made for temporarily holding ducks in buildings outfitted with proper ventilation and heat.
5. It is recommended that hauling density not exceed 0.45 square foot per duck. If temperatures and humidity are expected to be excessive, the stocking density should be reduced to 0.5 square foot per duckling. Caution needs to be taken when temperatures exceed 68°F and relative humidity is expected to exceed 60%. The chart below is a guide for determining excessive humidity and temperatures.



\* References: 1. Measuring and Auditing Broiler Welfare - CA Weeks & A Butterworth. 2. RSPCA: Welfare Standards for Ducks

6. Midwest live haul trailer densities are set based on the thermal comfort zone (see table):

MLF Livehaul Trailer Capacity - MIDWEST		
# Decks	Temp below 60°F	Temp above 60°F
5	3,167	2,850
6	3,833	3,450

Note: Areas of the country with lower humidity ranges can safely haul ducks at higher temperatures. The conditions should be assessed based on actual temperatures experienced.

#### **8.4 Loading**

7. Before loading ducks, caretakers must remove any hindrance, such as sharp edges or protrusions that may injure ducks.
8. Caretakers must recognize different ways to move ducks. Various distractions can cause the ducks to not move along. Not every flock or every house is the same. Realizing the best way to handle each house and flock is an important factor in loading procedures.
9. Caretakers must keep tired ducks separate from walking ducks.

#### **8.5 Unloading**

1. Employees must be prepared for unloading so that there is ample time and space to unload ducks.
2. When they are moved, ducks should be allowed to move at their own pace.
3. Employees must monitor the ducks so that the ducks do not crowd each other while unloading.
4. Employees must keep track of how many ducks go into each designated holding pen. Ducks being held on raised flooring just prior to slaughter may be held at a density of 1.2 ft<sup>2</sup>/duck if the holding period is less than 4 hours.
5. All ducks that may have been injured during the haul must be quickly sorted out and humanely culled.
6. Once the ducks are unloaded into the holding house, they must be allowed to rest and be given access to plenty of fresh drinking water.
7. Once the ducks are unloaded, the live haul truck and trailer must be washed and sanitized as soon as possible.
8. Records of sitters, culls and dead on arrivals (DOA's) must be kept by flock. Levels exceeding 0.5% should be considered excessive, and must be documented and reported to management immediately so that remedial action taken to reduce them.

## **Section 9 - Duck Processing**

Duck processing facilities should be set up and managed so they do not injure or stress ducks prior to processing. Processing staff who handle ducks must be trained and certified.

### **9.0 Handling in the Holding Area**

Ducks will calmly adjust to a new environment, such as a holding house.

1. Employees may use flags to guide the ducks, but should not cause panic with excessive noise or sharp movements.
2. When ducks must be carried for short distances, employees should have no more than one duck per hand (see handling section 8.1)
3. Tired ducks placed in totes should be kept in them and carted through the holding house so they do not have to walk. Totes capacity is not to exceed 0.5 square foot per duck.
4. Any duck that is sick or injured must be properly culled. DOA's and culls must be promptly and properly disposed of in a suitable container available for USDA inspection.

### **9.1 Live Hang, Stunning and Exsanguinations**

1. All live hang employees must be properly trained and certified in the proper placement of ducks onto the live hang equipment according to Maple Leaf's Live Hang standard operating procedures
2. A daily record that documents flocks showing problems must be maintained. The information kept in this record must be periodically reported to management so corrective action can be taken with farms that have history of problems. Corrective action must be formally documented by management in the Grow Out monthly updates.
3. The number of trained exsanguination-line workers must be appropriate for a given line speed.
4. To properly stun a duck, its head and upper portion of the breast must pass through a stunner, rendering them unconscious. A post-stun posture that includes the tail up, wings tucked in, and rigid, arched neck, is visual evidence of an effective stun.
5. No duck should show signs of sensibility such as natural flapping of wings, raising its head, or vocalization throughout the exsanguinations process or prior to entering the scalding. Involuntary movement such as a wing vibration is not an indication of an incomplete stun.
6. Any duck that does not have a post-stun posture prior to exsanguinations must be removed from the line prior to sticking, placed in a holding container and taken back to live hang.
7. If a duck is showing signs of sensibility or an incomplete stun prior to entering the scalding, it must be immediately taken off the line and re-hung in the live hang area for re-stunning.

8. Plant management or quality assurance must monitor 100 ducks for motion at the entrance of the scalders each day. Observations must be recorded and corrective action taken if needed.
9. If the line breaks down, the staff must immediately shut off the stunner and unload live ducks if the breakdown will take longer than 2 minutes to repair.

## **9.2 Records**

1. DOA records for each farm must be maintained so that problems can be identified and corrective action can be taken.
2. Plant management must make daily post-exsanguination observations of one leg shackling, bruises and improper stunning. Levels of one leg shackling or improper stunning that exceed 1/300 require remedial action. All action should be documented.

## **9.3 Equipment**

1. In addition to the USDA preoperative checks, the processing plant management must check all equipment and settings to ensure it is in appropriate working condition.
2. The amperage of the stunning equipment must to be checked and recorded.

## **DUCK WELL-BEING ADVISORY COMMITTEE**

### **Role of Duck Well-Being Advisory Committee**

The Committee's role is to keep Maple Leaf Farms aware of well-being research that may be appropriate for the company to investigate further. They will encourage and help bring about research to further support our Duck Well-Being Guidelines and to update or amend these as required.

The Committee will advise us on legislation currently in place in other countries so it can be monitored if it is likely to impact future US legislation.

The Committee will also keep us aware of the views of welfare associations and make formal recommendations on key points and approaches to improving duck well-being that could be applied to the duck industry.

### **Duck Well-Being Advisory Committee Members:**

- Todd Applegate, Ph.D., Associate Professor and Extension Poultry Specialist, Purdue University
- Joe Garner, Ph.D., Assistant Professor of Animal Behavior and Well-Being, Purdue University
- Keith Gooderham, BVSc, DPMP, MRCVS, Consulting Poultry Veterinarian, Cambridge, United Kingdom
- Joy Mench, Ph.D., Professor of Animal Science and Director of the Center for Animal Welfare, University of California-Davis
- David Pyle, DVM, A.C.P.V., Consulting Poultry Veterinarian, Michigan, USA
- Richard Sommers, DVM, Consulting Poultry Veterinarian, Indiana, USA
- Patricia Wakenell, DVM, Associate Professor of Avian Diagnostics, Animal Disease Diagnostic Laboratory, Purdue University
- Michael Wineland, Ph.D., Professor of Poultry Science, North Carolina State University

**References:** The following publications were referred to in the development of the Maple Leaf Farms Duck Well-Being Guidelines:

- Assured Food Standards. (2008-2009). *Poultry Standards*. Retrieved January 20, 2009, from <http://www.redtractor.org.uk/site/REDT/Templates/GeneralStandards.aspx?pageid=28>
- American Veterinary Medical Association. *Disaster Preparedness & Response Guide*. Retrieved June 15, 2009, from [www.avma.org/disaster/emerg\\_prep\\_resp\\_guide.pdf](http://www.avma.org/disaster/emerg_prep_resp_guide.pdf)
- American Veterinary Medical Association. (2007). *AVMA Guidelines on Euthanasia*. Retrieved January 20, 2009, from [www.avma.org/issues/animal\\_welfare/euthanasia.pdf](http://www.avma.org/issues/animal_welfare/euthanasia.pdf)
- Department for Environment, Food and Rural Affairs. *Codes of Recommendations for the Welfare of Livestock: Ducks*. Nobel House, London, England. 2005.
- Federation of Animal Sciences Societies. *Report to the Duckling Council evaluating the 2003 Duck Well-Being Guidelines*.
- Royal Society for the Prevention of Cruelty to Animals. (2009). *Welfare Standards for Ducks*. West Sussex, U.K.
- Gustafson, L., Cheng, H., Garner, J.P., Pajor, E.A., & Mench, J.A. *Effects of Bill-Trimming on the Welfare of Ducks*.
- Holderread, D. (2001). *Storey's Guide to Raising Ducks*. North Adams, Massachusetts: Storey Publishing.
- Maple Leaf Farms. *Duck Flock Records*. Milford, IN: Maple Leaf Farms. 2006.
- Maple Leaf Farms. *Duck Grow-Out, Breeder and Hatchery Manuals*. Milford, IN: Maple Leaf Farms. 1994 revised 2006
- Maple Leaf Farms. *Farm Non-Compliance Program*. Milford, IN: Maple Leaf Farms. 2001
- Maple Leaf Farms. *Duck Well-Being Guidelines*. Milford, IN: Maple Leaf Farms. 2003.
- National Chicken Council. (2005). *Animal Welfare Guidelines and Audit Checklist*. Retrieved June 15, 2009, from <http://www.nationalchickencouncil.com/files/AnimalWelfare2005.pdf>
- National Turkey Federation. (2008). *Animal Care Guidelines for the Production of Turkeys*. Retrieved June 15, 2009, from [http://www.eatturkey.com/foodsrv/pdf/2008\\_Guidelines.pdf](http://www.eatturkey.com/foodsrv/pdf/2008_Guidelines.pdf)
- Scott, M.L., & Dean, W.F. (1991). *Nutrition and Management of Ducks*. Ithaca, New York: M.L. Scott of Ithaca.
- United Egg Producers. *Animal Husbandry Guidelines for U.S. Egg Laying Flocks*. 2008 edition. Atlanta, GA: United Egg Producers. 2008.