



# Flock Health Management Assessment Form

<b>Name</b>	
<b>Veterinarian's name</b>	
<b>Date of visit</b>	<b>OSHP #</b>

This form is intended to introduce topics you may wish to discuss with your veterinarian. You do not need to use all the management practices notes on the form to be certified with the program (i.e. organic producers are not required to use chemical dewormers etc.).

Chapter and page references (Ch # ; pg. #) to the Introduction to Sheep Production manual are given in each section to provide you with additional information. It is not mandatory for you to comply with any of the recommendations given in the manual to be certified with the program.

Red flags are listed in each management area. You may wish to pay attention to those areas during the veterinary visit.

You can use the check boxes to note the practices you use and discuss with your vet.

The notes/recommendations section may be used by the producer to comment on current flock management practices or by the veterinarian to record recommendations.

## Understanding your operation

<b>Type of operation</b>	
<b>Products marketed and how</b>	
<b>Breeds used</b>	
<b>Size of breeding flock</b>	
<b>Circle one: Increasing / Decreasing / Status quo</b>	<b>Other</b>

Management area	Notes and recommendations
<b>A. Reproductive Management</b>	
<p>Reproductive management of both ewes and rams is important to ensure you are achieving a high efficiency from each ram exposure – proportion of ewes lambing, number of lambs born per ewe, and length of lambing season.</p> <p><b>Reg flags:</b>  Pregnancy/lambing rates are low; lambing season is long.  Prolificacy is low based on flock goals (see Productivity Calculations and Goals form).</p>	
<p><b>Ewes (Ch. 6; pg. 75)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Pre-breeding flushing (nutritional) (Ch. 6; pg. 75, Ch. 7; p. 119)</li> <li><input type="checkbox"/> Synchronization of estrus: <ul style="list-style-type: none"> <li><input type="checkbox"/> Hormonal (Ch. 6; p. 83-84)</li> <li><input type="checkbox"/> Light manipulation (Ch. 6; p. 82-83)</li> <li><input type="checkbox"/> Ram effect (Ch. 6; p. 76)</li> </ul> </li> <li><input type="checkbox"/> Appropriate ram to ewe ratio (Ch. 6; p. 80)</li> <li><input type="checkbox"/> Appropriate length of exposure (Ch. 6; p.79)</li> <li><input type="checkbox"/> Use of pregnancy diagnosis (Ch. 6; p. 78) <ul style="list-style-type: none"> <li><input type="checkbox"/> Ultrasound/fetal counting</li> <li><input type="checkbox"/> Teaser ram with marker harness</li> </ul> </li> </ul>	
<p><b>Rams (Ch. 6; p. 78)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Appropriate pre-breeding management of rams (Ch. 6; p. 78, Ch. 7; p. 123, Ch. 11; p. 218)</li> <li><input type="checkbox"/> Breeding soundness examination (Ch. 5; p. 68, Ch. 6; p. 78-79)</li> <li><input type="checkbox"/> Ram marker harness during breeding (Ch. 6; p. 80)</li> </ul>	
<b>B. Lambing time diseases of ewes</b>	
<p><b>Prevention of pregnancy toxemia (PT)</b></p> <p><b>Red flags:</b>  You have had ewes die or show signs of PT in late pregnancy (Ch. 8; p.157).  You typically do not provide ewes in late pregnancy with grain or high-quality forage.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Proper management of late gestation nutrition (Ch. 7; p. 120)</li> <li><input type="checkbox"/> Knowledge of the early detection and treatment of PT (Ch. 8; p. 157)</li> </ul>	
<p><b>Control of abortion</b></p> <p><b>Red flag:</b>  If more than 5% of ewes aborted last breeding or if abortions occur as a cluster in time or with an increased number of stillbirths and weak lambs.</p> <p>Note: Pregnant women should avoid handling ewes during lambing as many abortion-related diseases can affect human and unborn babies.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Appropriate management of abortions (Ch. 8; p. 159) <ul style="list-style-type: none"> <li>Methods for controlling abortions (Ch. 8; p, 159-161) <ul style="list-style-type: none"> <li><input type="checkbox"/> Vaccination (for which disease(s)?)</li> <li><input type="checkbox"/> Feed additives</li> <li><input type="checkbox"/> Biosecurity</li> </ul> </li> </ul> </li> </ul>	
<p><b>Prevention of vaginal prolapse</b></p> <p><b>Red flag:</b>  More than 2% of pregnant ewes develop this condition</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Minimize risk factors (Ch. 7; p. 117; Ch. 8; p. 158)</li> </ul> <p>Management of prolapses</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> monitor number of ewes that prolapse</li> <li><input type="checkbox"/> Treatment</li> <li><input type="checkbox"/> Culling</li> </ul>	

### C. Improving survival of lambs

Many factors will contribute to your final lamb count including management of ewes before lambing, how diligent you are in checking and assisting lambing ewes, and the quality of care given to lambs after birth.

#### Red flags:

- Have more than 5% of lambs born dead (still births).
- Of those that are born alive, more than 5% of lambs die before weaning.
- Have an “annoying” number of lambs being bottle fed.
- Poorer than expected pre-weaning lamb growth.
- Lambs routinely fail to thrive or die shortly after weaning.

#### Pre-lambing management

- Appropriate ewe management 3 to 6 weeks prior to first expected lambing date (Ch. 6; p. 86)
- Lambing supplies on hand (Ch. 6; p. 86 and 90)
- Housing management of close-up ewes
- Frequency of observation of close-up ewes

#### Lambing management

- Assistance of lambing (Ch. 6; p. 86)
- Check milk availability/quality
- Use of claiming pens (Ch. 6; p. 91)
- Processing of newborns (Ch. 6; p. 91-93)
- Colostrum management/amount (Ch. 6; p. 98, Ch. 7; p. 121)

#### Prevention and treatment of hypothermia/starvation of lambs (Ch. 6; p. 94-99)

- Management strategy for weak/chilled lambs (Ch. 6; p. 94)
- Minimize risk factors for chilling and starvation (Ch. 6; p. 95-99)

#### Failure of ewes to raise lambs

- Do you routinely investigate and record the reasons ewes fail to raise their lamb(s)? e.g. insufficient milk, mismothering, illness, etc.)
- Effective cross-fostering management (Ch. 6; p. 93)
- Effective artificial rearing management
  - Milk replacer: type, delivery method, length of time (Ch.7; p. 121)
  - Prevention of abomasal bloat

#### Control of mastitis

- Routine pre-breeding check of udders (Ch. 5; p. 68)
- Minimize risk factors (Ch. 8; p. 162)
- Awareness of when during lactation mastitis typically occurs
- Treatment of mastitis (Ch. 8; p. 162)

#### Investigation of lamb deaths

- Do you routinely perform necropsy on lambs to determine approximate time of death (e.g. stillborn) and possible cause of death?
- Do you routinely record details of all lamb mortalities? (Ch. 4; p. 58 + form provided)

#### Other lamb diseases

Does your flock have significant losses from the following diseases? Are you aware of the signs, control and treatment of the following diseases?

- Neonatal diarrhea (Ch. 8; p. 149)
- Pneumonia (Ch. 8; p. 152)
- Urolithiasis (water belly) (Ch. 8; p. 163)
- Soremouth / Orf / Contagious Ecthyma (Ch. 8; p. 164)
- Pink eye (Ch. 8; p. 164)

#### Management of weaning

- Appropriate age at weaning
- Management before and after weaning (Ch. 6; p. 106; Ch. 7; p. 121-122)

<b>D. Nutritional diseases</b>	
<p><b>Nutritional management of flock</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>A sizeable portion of the adult sheep in the flock are either over or under conditioned.</li> <li>Evidence of nutritional deficiencies such as poor reproductive performance and poor wool quality.</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Routine body condition scoring (Ch. 7; p. 118; Fact sheet in Appendix)</li> <li><input type="checkbox"/> Sort and feed ewes based on body condition score</li> <li><input type="checkbox"/> Analyze nutrients of forages (Ch. 7; p. 112)</li> <li><input type="checkbox"/> Ration formulated by nutritionist (Ch. 7; p. 115)</li> <li><input type="checkbox"/> Implement a mineral/salt feeding program (Ch. 7; p. 114-115)</li> </ul>	
<p><b>Prevention of vitamin E Selenium deficiency (White Muscle Disease)</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>Your farm or the area where your forages are grown is low in soil Selenium (many areas of Ontario).</li> <li>You have had lambs showing typical signs of White Muscle Disease (Ch. 8; p. 150)</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inject with vitamin E/Selenium products Ewes or lambs?</li> <li><input type="checkbox"/> Add Selenium or vitamin E to rations Ewes or lambs? What level?</li> </ul>	
<p><b>Prevention of Copper Toxicity</b></p> <p>Red flag:</p> <ul style="list-style-type: none"> <li>Sudden death, particularly after a stressful event. Typically, more than one animal in the flock will be affected. Affected animals may show jaundice and dark urine (Ch. 8, p. 150)</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Minimize sources of copper from feed and environment</li> <li><input type="checkbox"/> Prevent molybdenum deficiency</li> <li><input type="checkbox"/> Test forages for copper routinely</li> </ul>	
<p><b>Prevention of clostridial diseases (Pulpy Kidney, Enterotoxaemia; Tetanus, etc.)</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>Sudden death of previously healthy lambs most commonly between 2 and 12 weeks or in weaned lambs (Pulpy Kidney: Ch.8; p. 149)</li> <li>Sudden onset of bloody diarrhea in lambs typically under 3 weeks of age (Enteritis: Ch. 8; p. 150)</li> <li>Limb stiffness or stilted gait in animal with wound or after castration or docking of lambs (Tetanus: CH. 8; p. 154)</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Vaccination program (Ch. 8; p. 138) Product used? Primary series, booster series / timing? Age of animals?</li> <li><input type="checkbox"/> Nutritional control measures (Ch. 8; p. 150)</li> </ul>	

<p><b>Prevention of grain overload (Lactic Acidosis) and Bloat (Ch. 8; p. 148)</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>Lambs on grain that go off feed, laminitis (sore feet), foul-smelling diarrhea.</li> <li>Deaths due to bloat.</li> <li>Liver abscesses at slaughter.</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Proper feeding / bunk management.</li> <li><input type="checkbox"/> Gradual change in feedlot rations.</li> <li><input type="checkbox"/> Avoidance of feeds associated with bloat.</li> </ul>	
<b>E. Parasitic diseases</b>	
<p><b>Control of internal parasites (Ch. 8; p. 141-143)</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>Poor lamb growth, may see diarrhea. (Ch. 8; p. 144)</li> <li>All sheep operations will benefit from using some form of parasite control.</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Anthelmintic use (including organic treatments): <ul style="list-style-type: none"> <li>Timing of treatment</li> <li>Drugs used, route, dosage – method of calculation</li> <li>Evidence of anthelmintic resistance?</li> </ul> </li> <li><input type="checkbox"/> Other control measures: <ul style="list-style-type: none"> <li><input type="checkbox"/> Monitoring of parasite burden – fecal egg count</li> <li><input type="checkbox"/> Pasture management / rotation</li> <li><input type="checkbox"/> Grazing with other species</li> </ul> </li> </ul>	
<p><b>Control of external parasites (Ch. 8; p. 145)</b></p> <p>Red flags:</p> <ul style="list-style-type: none"> <li>Scratching, rubbing of wool, poor growth (keds, lice, mange).</li> <li>Evidence of fly strike, maggots and soiled wool.</li> <li>Nasal discharge and irritation (Nose Bots)</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Control products used (including organic)</li> <li><input type="checkbox"/> Pasture management (shelter, fly control)</li> <li><input type="checkbox"/> Tail docking and shearing</li> </ul>	
<p><b>Control of Coccidiosis (Ch. 8; p. 144 and 149)</b></p> <p>Red flag:</p> <ul style="list-style-type: none"> <li>Typically affects lambs most severely. One or several lambs within one pen develop diarrhea (possibly bloody), poor growth, 2+ greater oocysts on fecal examination</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prevent fecal contamination of feed and water</li> <li><input type="checkbox"/> Coccidiosis <ul style="list-style-type: none"> <li>Type, dosage, concentration, delivery method, to whom</li> </ul> </li> </ul>	
<p><b>Prevention of Dog Tapeworm damage</b></p> <p>Red flag:</p> <ul style="list-style-type: none"> <li>Lamb livers or entire carcasses condemned at slaughter due to cysts, larval tracts or scars (<i>Cysticercus tenuicollis</i> / <i>Taenia hydatigenia</i>; <i>Cysticercus ovis</i> / <i>Taenia ovis</i>).</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Farm dogs routinely treated for tapeworms?</li> <li><input type="checkbox"/> Farm dogs allowed to eat uncooked sheep carcasses/offal?</li> </ul>	
<b>F. Predator losses</b>	
<p><b>Predator control (Ch. 10; p. 209-217)</b></p> <p>Red flag:</p> <ul style="list-style-type: none"> <li>History of sheep loss from predation.</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Guard animals</li> <li><input type="checkbox"/> Electric fences</li> <li><input type="checkbox"/> Other control methods</li> </ul>	

<b>G. Diseases causing lameness</b>	
<p><b>Controlling lameness (Ch. 8; p. 156 and Ch. 9; p. 206-207)</b></p> <p>Red flag: Lameness is more than 5% of sheep (foot diseases, foot scald, foot abscesses, contagious ovine foot rot, laminitis).</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Diagnosis of cause of lameness</li> <li><input type="checkbox"/> Routinely trim and examine feet</li> <li><input type="checkbox"/> Management of environment (pasture, yards)</li> <li><input type="checkbox"/> Culling <ul style="list-style-type: none"> <li>Treatment of lameness / contagious footrot</li> <li>Pasture management</li> <li>Foot bathing <ul style="list-style-type: none"> <li>Equipment, frequency, duration, culling</li> <li>Treatment used (zinc sulphate, formaldehyde) and concentration</li> </ul> </li> <li>Others: antibiotics, vaccination</li> </ul> </li> </ul>	
<b>H. Control of diseases which cause wasting in adult sheep</b>	
<p><b>Investigation of chronic wasting diseases</b></p> <p>Progressive chronic wasting is a primary sign of many important diseases found in adult sheep. Sheep should be routinely checked for body condition score. An adult animal suffering from wasting is unusually thin in comparison to its cohorts, considering ration and stage of production. It is important to investigate causes for chronically thin sheep, as they may be an indication of a costly sub-clinical disease in your flock. Monitoring through necropsy of thin adults by your veterinarian is one of the most effective ways of identifying the cause of wasting.</p>	
<p><b>Dental / oral disease (Ch. 8; p. 153)</b></p> <p>Red flag: Typically, one animal is affected at a time. Thin adults have gingivitis; incisor loss, pre-molar loss, osteomyelitis, other diseases of the jaw (Lumpy Jaw, check abscesses)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Routinely check thin adults for dental problems</li> <li><input type="checkbox"/> Minimize risks (appropriate feed)</li> </ul>	
<p><b>Control of Caseous lymphadenitis (CLA) (Ch. 8; p. 153)</b></p> <p>Red flag: A common disease that mostly manifests as abscesses in the head and neck region however, abscesses in the lungs and internal organs are also common. Caused by infection with <i>Corynebacterium pseudotuberculosis</i>. Internally affected animals may present with chronic wasting, respiratory distress or be asymptomatic.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Vaccination program</li> <li><input type="checkbox"/> Isolation</li> <li><input type="checkbox"/> Culling</li> <li><input type="checkbox"/> Shearing biosecurity</li> </ul>	
<p><b>Control of Maedi Visna (Ovine Progressive Pneumonia) (Ch. 8; p. 152 and 155)</b></p> <p>Red flag: Hard bag mastitis; progressive respiratory disease in adult sheep.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Control program (blood testing and culling)</li> <li><input type="checkbox"/> Biosecurity</li> </ul>	

<p><b>Control of Johne’s Disease (Ovine Paratuberculosis) (Ch. 8; p. 153)</b>  <b>Red flag:</b>  Progressive weight loss of adult sheep, may see diarrhea</p> <p><b>See</b></p> <input type="checkbox"/> Environmental control <input type="checkbox"/> Serology / fecal culture and culling <input type="checkbox"/> Prevention of infection of young stock	
<p><b>Scrapie status of flock (Ch. 8; p. 155)</b>  <b>Red flag:</b>  Neurological disease or wasting of sheep generally two years or older.</p> <p>Discuss the following with your vet:</p> <ul style="list-style-type: none"> <li>• Epidemiology of disease</li> <li>• Genetics of disease</li> <li>• Regulations regarding control / reportable disease</li> <li>• Voluntary Scrapie Flock Certification Program <ul style="list-style-type: none"> <li>○ Description of pathways 1, 2, 3 <ul style="list-style-type: none"> <li>▪ Monitoring of mature deads</li> <li>▪ Genetic testing</li> <li>▪ Third eyelid testing</li> </ul> </li> </ul> </li> </ul>	
<b>I. Sheep management tools</b>	
<p><b>Handling facilities (Ch. 2; p. 17)</b>  Discussion of the need for handling facilities  Crowding pens; chute; drafting gate; head gate  Lamb cradle; footbath; stock dog; stanchion</p>	
<p><b>Carcass quality / safety</b></p> <input type="checkbox"/> Inject sheep subcutaneous, if possible, and always in the neck <input type="checkbox"/> Muzzle dogs when loading lambs for market <input type="checkbox"/> Always record treatments and follow withdrawals	
<p><b>Record keeping (Ch. 4; p. 50)</b></p> <input type="checkbox"/> National ID program (Ch. 4; p. 50) <input type="checkbox"/> Other methods of identification (Ch. 4; p. 50) <input type="checkbox"/> Treatment records (Canadian Verified Sheep Program or equivalent) <p><b>Current method(s) of information recording</b></p> <input type="checkbox"/> Lambing diary <input type="checkbox"/> Individual cards <input type="checkbox"/> Software program <input type="checkbox"/> GenOvis (Ch. 5; p. 70) <input type="checkbox"/> Analysis of performance	

*Make a summary of recommendations on the Flock Health Management Summary Form (FHM-SUM). A copy of this worksheet should be retained by both the flock veterinarian and the flock manager for a minimum of one year.*