## Assessment of Udder Health in Dairy Sheep

### Table VII.2 – A Guide to Udder Health for Dairy Sheep – November, 2013

<table>
<thead>
<tr>
<th>DATE OF ASSESSMENT</th>
<th>MILKING SYSTEM</th>
<th>FARM NAME</th>
<th>FLOCK VETERINARIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average # ewes milked in previous 12 months</td>
<td>Avg. # days post-lambing ewes put into milk-line</td>
<td>Avg. length of lactation (milked)</td>
<td></td>
</tr>
</tbody>
</table>

### MEASUREMENT OF PERFORMANCE

<table>
<thead>
<tr>
<th>PREVIOUS LEVEL</th>
<th>GOAL FOR FLOCK</th>
<th>CURRENT LEVEL</th>
<th>ACTION NEEDED?</th>
<th>ADDITIONAL ASSESSMENT</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>□ YES □ NO</td>
<td></td>
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</table>

#### ASSESSMENT OF CLINICAL MASTITIS

**Annual incidence of clinical mastitis (%)**

*Calculate:* (# ewes with 1 or more cases of clinical mastitis in last 12 months / average # ewes milked in last 12 months) × 100

| < 5% | □ YES □ NO | • Investigate stage of lactation, season, parity of animals with clinical mastitis  
• Culture cases to determine if contagious or environmental organisms  
• Review milking management, milking equipment |

**Annual incidence of repeat cases of clinical mastitis (%)**

*Calculate:* (Total # cases of clinical mastitis in last 12 months / average # ewes milked in last 12 months) × 100

| <1.5 X value above | □ YES □ NO | • Culture cases to determine organism.  
• Investigate reasons for failure to manage clinical cases (e.g. treatment protocols) |

**Prevalence of ewes with a blind gland (%)**

*Calculate:* (Total # of glands that did not produce milk in the last 12 months/total # of ewes milked in last 12 months) × 100

| < 5% | □ YES □ NO | • Examine history of ewes with blind glands to determine reason. E.g. mastitis, teat damage.  
• Review culling policy. |

#### ASSESSMENT OF SUB-CLINICAL MASTITIS

**Proportion of ewes with SCC level > 400,000* (linear score 5) each test (%)**

*Calculate:* (# ewes with SCC > 400,000 at last milk test/# ewes tested) × 100

| < 20% | □ YES □ NO | • Investigate stage of lactation, season, parity etc. of animals with subclinical mastitis  
• Review milking hygiene and maintenance of milking equipment  
• Review management of ewes with contagious mastitis  
• Review hygiene of environment  
• Determine prevalence of teat end lesions and their cause (e.g. over-milking, high vacuum)  
• Review biosecurity protocol when purchasing animals  
• Investigate risk from nursing lambs of teat damage |

**Incidence of new infections during lactation (%)**

*Calculate:* (# ewes with SCC > 400,000 at last milk test and ≤ 400,000 at previous milk test/# ewes ≤ 400,000 at previous milk test) × 100

| < 5% | □ YES □ NO | • Investigate stage of lactation, season, parity etc. of animals with subclinical mastitis  
• Review milking hygiene and maintenance of milking equipment  
• Review management of ewes with contagious mastitis  
• Review hygiene of environment  
• Determine prevalence of teat end lesions and their cause (e.g. over-milking, high vacuum)  
• Review biosecurity protocol when purchasing animals  
• Investigate risk from nursing lambs of teat damage |
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| Prevalence of chronic infections (%)                            |                |                | < 5%          | □ YES □ NO     | • Determine period of onset of chronic mastitis cases with respect to stage of lactation, parity, season  
| Calculate: (# ewes with SCC > 400,000 at 3 or more tests this lactation / total # lactations assessed) X 100 |                |                |               |                                            | • Culture to determine pathogen type  
|                                                                  |                |                |               |                                            | • Investigate status of maedi visna infection in the flock |
| Prevalence of infections at first test post-lambing (%)         |                |                | < 10%         | □ YES □ NO     | • Determine parity of affected animals  
| Calculate: (# ewes with SCC > 400,000 at first test post-lambing / total # first tests) X 100 |                |                |               |                                            | • Investigate whether due to damage from nursing lambs prior to placing in milk line  
|                                                                  |                |                |               |                                            | • Review dry-period mastitis treatment protocols and hygiene at treatment  
|                                                                  |                |                |               |                                            | • Investigate dry-off management  
|                                                                  |                |                |               |                                            | • Review environment of dry ewes |

## ANIMAL LOSS DUE TO MASTITIS

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| □ YES □ NO     | • Review treatment protocols, including methods of detection of ewes with clinical mastitis  
|                | • Investigate causative agents causing death (e.g. *Staphylococcus aureus*)  
|                | • Investigate and review as outlined above under clinical and subclinical mastitis  
|                | • Review culling policies as well as areas above                                                                                                                                                                                                                                           |

| Turnover rate due to mastitis (%)                             |                | < 5%          | □ YES □ NO     | • Review treatment protocols, including methods of detection of ewes with clinical mastitis  
| Calculate: (# ewes culled and died due to mastitis/average # milked in last 12 months) X 100 |                |                |               |                                            | • Investigate causative agents causing death (e.g. *Staphylococcus aureus*)  
| Incidence of ewes dying of mastitis annually (%)              |                | < 0.5%        | □ YES □ NO     | • Investigate and review as outlined above under clinical and subclinical mastitis  
| Calculate: (# ewes dying of mastitis / avg. # milked in last 12 months) x 100 |                |                |               |                                            | • Review culling policies as well as areas above |
| Proportion of ewes culled due to mastitis (%)                 |                | < 5%          | □ YES □ NO     | • Review treatment protocols, including methods of detection of ewes with clinical mastitis  
| Calculate: (# ewes culled due to mastitis / avg. # milked in last 12 months) X 100 |                |                |               |                                            | • Investigate causative agents causing death (e.g. *Staphylococcus aureus*)  
| Proportion of ewes culled, that were culled due to mastitis (%)|                | < 20%         | □ YES □ NO     | • Review treatment protocols, including methods of detection of ewes with clinical mastitis  
| Calculate: (# ewes culled due to mastitis / total # ewes culled in last 12 months) |                |                |               |                                            | • Investigate causative agents causing death (e.g. *Staphylococcus aureus*)  

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i  A case of clinical mastitis is one in which there is a change to the udder and / or milk of one or more glands as detected by visual inspection  
ii Count ewes with multiple cases of clinical mastitis only once.  
iii You may wish to lower this cut-point as udder health improves and average flock SCC drops. A goal would be to use SCC > 200,000 (linear score 4)  
iv Do not include ewes that were sold for dairy, i.e. into another flock to be milked, but only those ewes sent to slaughter

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