

# **Examination of the ram for breeding and brucellosis**

## **REASONS FOR EXAMINATION:**

### **1. Fertility**

- Sub fertile rams often have high libido, and can monopolise in season ewes or have weak conceptions knocking ewes out of cycle. High % of conceptions that do occur abort early. Result - reduction in overall lambing %.
- Poor fertility is hereditary in surviving ewe lambs and ram lambs, so poor fertility spreads into both sexes. Conversely good fertility also hereditary, so selection improves lambing %.
- Poor fertility requires excessive ram:ewe ratio.

### **2. Ability to serve** eg: physical problems with penis, legs etc.

### **3. Desirable vs. undesirable hereditary traits** eg: meat, wool, skin pigment, against teeth, feet, wool blindness.

### **4. Monitoring for ovine brucellosis** (future DoA policy to replace blood tests).

## **WHEN:**

Close to turnout eg: 4-6 weeks. Rams need to be sexually active for proper assessment of fertility (governed by day length).

## **HOW:**

Full check list for a standard (non-stud) commercial flock:

1. **Wool/meat** characteristics.
2. **Eyes:** tendency to wool blindness, entropion (inturning lids), lid pigmentation vs. UV induced cancers.
3. **Feet:** check for deformity/infection (hereditary/serve poorly).
4. **Legs:** look for bowing (hereditary/short working life) and stiffness/joint swelling (arthritis - serve poorly).
5. **Teeth:** bad bite (hereditary). Poor food intake reflected in poor condition score and therefore fertility/ability to serve.
6. **Condition score:** ideally 3.5 to 4. May lose 15% of body weight. Ram with 40 ewes should be able to serve 200 times in 1 month. Underweight rams underperform 2 ways: poor sperm count and fewer services.
7. **Sex organs:** the penis, testicles and scrotum. SEE ON>>>

## **SEX ORGANS:**

### **• Examination of the penis:**

Turn ram onto rump.

1. Deviation/scarring/sheath infection (eg: severe shearing cuts)
2. If able to extrude (don't force – try gentle pressure at base), check for damage and presence of whip-like urethral process on tip.

### **• Examination of scrotum and testicles:**

Most important and quickest way to assess fertility.

Either turn ram onto rump, or for large numbers and basic evaluation, line up in race and examine from behind. This can be a simple two-handed palpation of the

testes. For standing ram, left hand cups left testis, right hand cups right testis, draw each thumb from the neck of the scrotum, down the curvature of each testicle, to the base of the scrotum. The right degree of pressure between thumbs and fingers will allow assessment for size, lumps, symmetry, and firmness.

### **Check:**

1. Scrotal skin disease? Even mild inflammation eg: eczema, raises temperature and reduces sperm count + + +.
2. Does the scrotal skin slide freely over the testicles? (No = scarring).
3. Entire? Two testicles?!
4. Lumps? Cysts? 'Boils' and other bacteria can cause lumps within/around the testicle, brucellosis causes large cyst-like structures especially head and tail of epididymis (see diagram).
5. Firmness (in breeding season). How firm? About the same as the ball of your thumb squeezed in a firmly clenched fist.
6. Symmetry? One too large = contains lump /inflamed (orchitis). One too small = damaged/scarred (atrophy).
7. Size. Length of each testicle should be approx twice width. A spherical testicle is wrong. There is a direct correlation between size of testicles and fertility – the easiest basic fertility check of all is to measure scrotal circumference at its widest point. Ideally mature rams should be at least 30cm (active rams may be 40cm+). (**Speed tip:** mark off/knot piece of string at 5cm intervals with red for 30cm and tie extra length to belt loop – easily pocketed, never lost) Rams with grossly undersized testicles should be culled.

### **BRUCELOSIS:**

#### **Future testicular examination monitoring programme:**

Continued blood testing is not warranted on a cost benefit basis as there have been no positive tests to *Brucella ovis* since 1991.

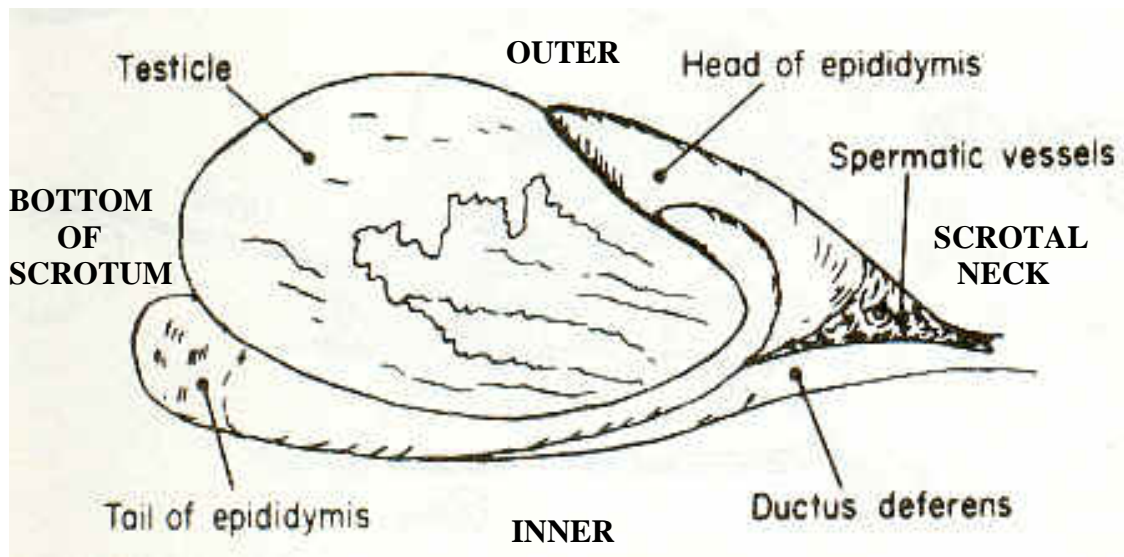
An alternative monitoring system will be introduced in the near future:

1. Testicular examination will be undertaken annually of all rams to be mated in that season by farmers or managers or trained staff.
2. Training of all farmers will be given by the DoA Veterinary Staff with refresher courses as required on an opportunistic basis.
3. Training notes will be added to the 'farm manual' for reference.
4. Results of the examinations will be documented by the annual submission of a 'Testicular examination of rams' form to the DoA Veterinary Section.
5. Any animal with abnormalities must be identified and reported to the DoA for further investigation.
6. DoA with follow up by examination and appropriate testing of suspect animals.

Typical abnormalities associated with *Brucella ovis* are:

1. **Orchitis** – inflammation of the testes resulting in a grossly enlarged, tender testicle.
2. **Atrophy** – the result of orchitis, a small, hard shrunken testicle.
3. **Epididymitis** – inflammation of the tubular structure that runs from the top (head) to the bottom (tail) of the testicle, resulting in abnormal swellings and cysts.
4. **Adhesions** – inflammation causing the normally free-moving scrotal skin to attach itself to the testicle.

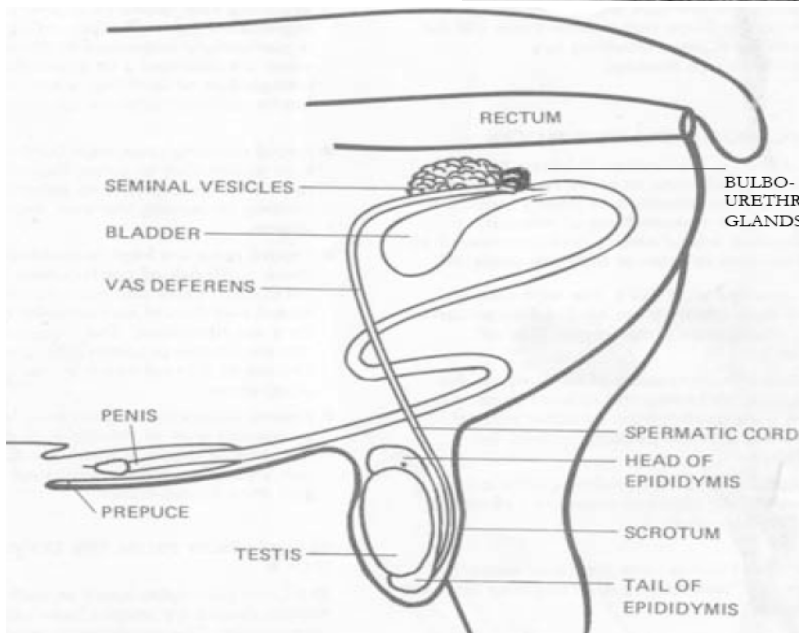
**Anatomy of the ram's testicle**



Testicle on left normal. Testicle on right is shrunken, tail of the epididymis is enlarged. Typical *Brucella ovis*.



**Manual examination of the testicles and scrotum**



**Anatomical relationship**

**Ram's penis**

