

Pre-joining inspection of your rams

Rams represent a significant financial and physical investment in your sheep enterprise, and as such should be managed accordingly. Too often, rams are only inspected a week or two prior to joining start date. At their pre-mating exam, rams may be drenched, vaccinated and foot paired and then expected to serve 50-100 ewes over the next 5-10 weeks.



Common problems that are often identified prior to joining include poor feet, disease (flystrike or worms), fighting injuries, poor body condition score or abnormal testicle size, shape or consistency. These problems take longer than a week or two to fix. Semen production takes around 7 weeks. If rams suffer health issues (e.g. foot abscess, flystrike, bleeding poll from fighting etc.) within 49 days of joining start date, there is a high probability that his semen and sperm production has been compromised. Temporary infertility can result when the ram's core body temperature increases in response to disease and fighting injuries.



Testing ram breeding soundness

In all commercial breeding flocks there are underperforming rams. Often physical abnormalities are not detected because ram examinations do not occur regularly or pre-mating examinations have not been carried out. Often, rams are not single sire mated with smaller groups of ewes, or are used at greater than 1%, and therefore poor performers often go undetected. Usually, physical attributes such as shoulders, feet, pasterns etc. are used as a guide to how a ram will perform. These attributes are not usually measured or scored objectively and somehow are related back to semen quantity and quality with no physical checks or measurements on scrotums. Emphasis on visual assessment of how a ram walks and sits on his pasterns can be indicative of hip/back and foot problems and potential serving ability but not sperm or semen quality!

Previous surveys conducted in Vic and NSW have shown that up to 20% of rams on commercial farms are unsound for breeding, with more than half of these rams having physical abnormalities.

Physical examination

A physical examination of ALL rams should be carried out at least 10 weeks before mating start date. This allows enough time to treat animals that may require treatment prior to joining or purchase replacements.

Physical examination of rams requires:

- Minimum 2 people, preferably 3
- Enough time. It takes roughly an hour to assess 12-15 rams
- Rams **MUST** be tipped over for examination and **NOT** examined in the race. You cannot examine feet and pizzle correctly when they are upright.
- Record the ear tag number of any rams that have lumps or bumps in and around the testicles as these will require blood testing.

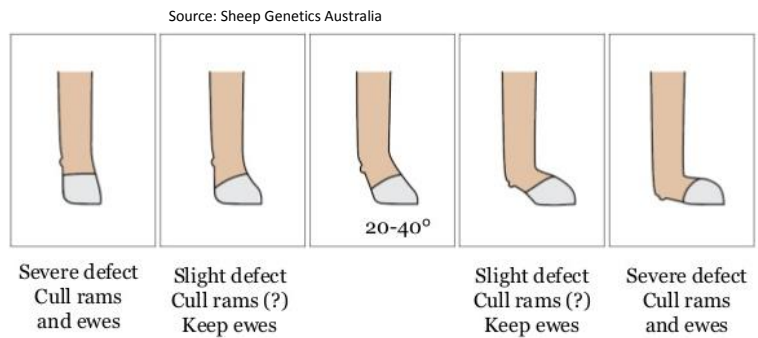


1. Check the head.

- a. Check poll for fresh fighting wound, infection (swelled head) or disease (flystrike)
- b. Check mouth for teeth and soundness. Poor teeth can result in nutritional stress resulting in poor fertility
- c. Check eyes for grass-seeds etc.

2. Check legs and feet

- a. Check knees for evidence of swelling or rubbing which could indicate lameness
- b. Check feet for:
 - i. Evidence of footrot, abscess, scald or flystrike
 - ii. Abnormal horn growth which can be caused by joint problems
 - iii. Structure of toes. Splayed toes are a genetic defect you may not want in the progeny! Any physical or structural defects in the back feet/legs or pasterns (picture above) will reduce the ability of the ram to mount and serve a ewe



3. General condition

- a. Check for:
 - i. Condition score. Rams should be at CS 3.5. Any higher than CS 4 reduces mobility which reduces serving ability, increases foot abscess risk and back/hip and joint failures. When < CS 2.5, rams produce inadequate semen quantity and quality.
 - ii. Infected OJD/6:1 vaccination sites
 - iii. Body strike
 - iv. Lice
 - v. In-growing horns
 - vi. Rubbed brisket indicating current or past lameness
 - vii. How the ram walks. Back foot should track in the same footprint as made by the front foot. If short, ram is lame

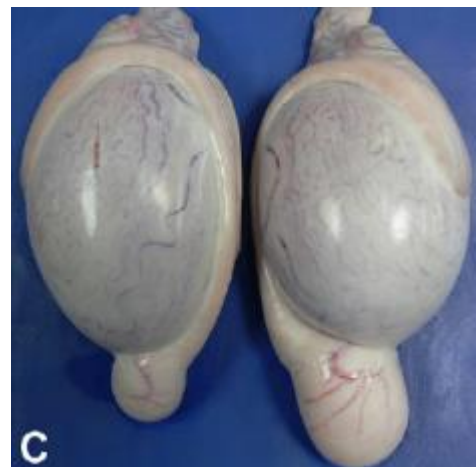


Source: <https://www.agric.wa.gov.au/livestock-parasites/keep-sheep-parasites-bay>

4. Check the scrotum and pizzle

The prevalence of physical abnormalities of the testes increases with age.

- a. Check scrotum for external injuries, abscesses, mange or thickening. Any of these problems can interfere with cooling of the purse but more importantly, reduce semen quality
- b. **Circumference – Minimum of 30cm required, preferably more.** Conception rates fall when circumference is < 30cm.
- c. Check the testes for:
 - a. Firmness – Not too hard and not too soft. We want springy and resilient consistency – like a flexed bicep muscle. Soft flabby testicles indicate poor fertility as do hard testicles that can be the result of scarring from fighting injuries
 - b. Size – each teste should be uniform in size
 - c. Lumps and bumps. Cheesy gland abscesses, epididymitis, hernias, brucellosis can all lead to reduced fertility
 - d. Check epididymis (picture on right) (head/body/tail) for swelling and abnormalities that can interfere with the movement of sperm from the testes to the pizzle.
 - e. External. Scrotal mange is more common than you think!



There is a positive correlation between sperm production and testicle size. Rams with small testes may not produce

Source: Carvalho Junior, C.A et al 2012 – Small Ruminant Research 102, pp 213-222

enough sperm through the joining period to maintain good fertilisation rates. Small scrotal circumferences can be caused by poor nutrition, maturity and development defects.

Check the pizzle for:

- a. Shearing wounds
- b. Sheath rot
- c. Ulcers, swellings, lesions. All cause pain when the ram is attempting to serve a ewe
- d. Ensure pizzle can protrude through the prepuce.

Record all of your findings. Use the ram assessment sheet (shown below) prepared by Dynamic Ag as a guide:



Client Name.....

Date of ram assessments..... Type of rams.....

Ram ID	Age	Scrotal circumference (cm)	Teste score		Condition score	Comments Feet, teeth, poll, brisket, eyes, wool type
			L	R		

Semen examination

Semen examination can be used to identify rams with fertility problems. It is more common place in rams used for stud breeding and artificial insemination. It involves checking semen for colour, density, and motility. Poor semen quality can also be caused by heat stress, poor nutrition, overfeeding, feet issues and disease.

RECOMMENDATIONS FOR EXAMINATION OF RAMS

- Physical examination of rams should take place at least 10 weeks before joining start date and/or before replacement rams are bought
- Rams should ALWAYS be re-examined 2 weeks out from joining start date
- Serving capacity and/or semen examination tests are generally not recommended for use in commercial flocks
- If lumps or bumps are detected, a veterinarian should be contacted and bloods collected and sent away for analysis
- Only use rams with the correct physical and structural characteristics in your ‘primary’ team. If you have to use inadequate rams as “backups”, you need to examine your team earlier to allow enough time to buy replacements at ram sales and look to have more rams in the team.
- Complete the ram assessment sheet provided by Dynamic Ag and capture as much data as possible. Scan and email a copy back to Dynamic Ag and store the results in a safe place. In 12 months’ time you will compare the same rams.

GENERAL RECOMMENDATIONS

- Only buy rams that are OJD vaccinated and from Brucellosis accredited studs
- Avoid mating rams with > 9 months wool. Having < 6 months wool enhances semen quality and reduces the risk of rams become cast
- Buy replacement rams with ASBVs. Dynamic Ag can assist with developing a breeding objective for your enterprise
- Rams must be vaccinated annually (minimum 2 weeks before joining), and drenched. Testosterone is a natural immuno-suppressant so rams require more drenching NOT less. I recommend a triple combination drench such as Triguard, Pyrimide or Hatrick.
- Run ewes in a small 'house' yard paddock where they can be monitored and inspected at least twice per week, particularly the last 49 days prior to joining start date
- Mature age ewes should be joined at a rate of 1-2%. Maiden ewes require at least 2% rams and if joining ewe lambs, consider a higher %
- If joining start date commences before February, there may be value in "teasing" ewes prior to mating start date. Ensuring all ewes are cycling will result in better and tighter rates of conception. Reproductive performance can also be influenced by paddock topography, mob size and length of joining
- Feeding lupins for 6 weeks prior to joining can improve testicle size and therefore semen quality and quantity. The literature suggests anywhere from 500 – 750g/head/day.

Dynamic Ag can assist your business with:

- Selecting and buying the right rams for your breeding objective
- Setting up your breeding objective
- Pre joining examination of rams
- Nutrition plans for ewes (flushing) and rams