

# *Bull Preparation for Joining*

Delivery of adequate amounts of quality semen requires a bull to have the physical ability to locate, mount and serve all cows in oestrus in a timely period. Bulls with good musculoskeletal systems with well developed reproductive organs and a good joining environment will deliver more quality semen to more available females.

Achieving maximum conception rates also includes priming the immune system of the bull to minimise disease processes interfering with semen production, and the risk of transferring diseases to females during mating. This includes parasite burdens and reproductive diseases.

Semen quality relies on adequate levels of starches, proteins, vitamins, trace elements and minerals in the diet for at least 8 weeks prior to joining. Particular attention has to be paid to ensure the supply of sufficient levels of vitamin A, zinc and B group vitamins.

**Failures of delivery of quality semen will mean lower conception rates. Fewer calves mean an unproductive year for the cow, slower genetic gain, less stock to sell and ultimately a decrease in annual income from breeding enterprises.**

## **Good Bull Preparation:**

Good bull preparation includes a gross assessment of the primary delivery system including musculoskeletal structure and the internal and external palpation of reproductive organs. Bulls in optimal body condition achieve higher conception rates than those too skinny or too fat.

Good bull preparation also includes microscopic examination of sperm structure and motility, as well as a qualitative assessment of libido. High nutrient intake of starches, protein, and vitamin A, zinc and B group vitamins 8 weeks prior to joining will improve both libido and the quality and quantity of the semen.

Good bull preparation also includes minimising physiological and nutritional stress. These impair utilisation of feed, damage cells and divert essential nutrients away from spermatogenesis.

Good bull preparation also includes having the correct ratios of males to females (a minimum of 1:40 for healthy adult bulls and 1:30 for healthy yearling bulls joined to small framed – maiden heifers/cows). Extensive joining paddocks may require a more bulls to breeding females.

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## **Protocol checklist**

### **8 weeks prior to joining:**

- Bull soundness examination (including external, internal and semen examination)
- Vitamin B<sub>12</sub>, vitamin A, D and E injections
- Internal and external parasite management (eg. Dectomax<sup>®</sup>) with the use of diagnostics to assess internal parasite burdens and so the need or otherwise to treat
- Ensure that vaccination programs are up to date, including annual boosters - 7 in 1 (eg. Ultravac<sup>®</sup> 7in1), vibriosis (eg. Vibrovax<sup>®</sup>), three-day sickness and pestivirus (eg. Pestigard<sup>®</sup>)
- Trace element application: before giving injectable selenium or copper trace element supplements, we recommend completing diagnostics on bulls
- Start supplementation of bulls. Contact your local ELMS manager for appropriate bull supplements tailored for your property pasture conditions

### **4 weeks prior to joining:**

- Complete vaccination program (as above).

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