

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Additional Estimates Hearing
26 February 2009

AGENCY/DEPARTMENT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

TOPIC: Mulesing

REFERENCE: Question on Notice (Hansard 26 February 2009, E125)

QUESTION No.: AI-62

Senator ABETZ—...Is CSIRO currently working on the issue of mulesing at all?

Mr Whelan—I think we are doing some research in that area. There may be an officer here who can give you some more details on that, or would you like me to take a question on notice? How do you want to handle it?

Senator ABETZ—Could you please take on notice where we are at with it, because it is becoming an international issue for the marketing of Australian wool. When I say research on mulesing, I should say alternatives to mulesing. I want to know how progress is going. A page maximum—I do not need all the research papers on it—just so I can get a handle on how that is going.

ANSWER

CSIRO, in collaboration with industry partners through Australian Wool Innovation (AWI), has been proactive in its research efforts to develop and evaluate alternatives to surgical mulesing of sheep. These include two primary research activities.

1. Breeding for breech strike resistance

CSIRO contributes to a collaborative project with AWI and Western Australian Agricultural Authority (WAAA) on the development of a genetic alternative to mulesing. The project evaluates the effectiveness of breeding for breech strike resistant sheep and is developing a ‘best-practice’ system for incorporation of breech strike resistance into Merino breeding programs.

The project includes a sizable selective breeding program with 600 ewes in 3 selection lines. A suite of indicator traits are under investigation to evaluate potential usefulness as selection criteria in Merino breeding programs. The ewes are evaluated for differences in the breech strike indicator traits, breech strike itself, wool production and cost of production.

Summary of results to date:

- Evidence to date is promising that selection for breech strike resistant sheep is effective.
- It is expected this will be particularly so if selection is combined with other breech strike management practices.
- Several of the traits under investigation have sufficiently high variability and heritability to enable successful selection for breech strike resistance.
- There are suggestions that faster genetic gain may be achieved using breech wrinkle rather than breech cover as the primary selection criterion, particularly in fine wool flocks.
- There are some antagonistic relationships between breech traits and production traits but these are low to moderate and, with an appropriately balanced breeding objective, do not preclude concurrent genetic gain in both wool productivity and flystrike resistance.

2. Assessment of intradermal treatments and analgesic therapies

CSIRO has undertaken a study on analgesic therapies to reduce the pain associated with mulesing as well as other surgical husbandry practices. These results were published in ten scientific papers, from 2005-2009, and have been distributed to stakeholders. In addition to assessing the ability of analgesic therapies to reduce the impact of mulesing on sheep, CSIRO has also been evaluating the welfare impacts of various mulesing alternatives that are applied within the skin to structurally change its properties, making the skin less attractive to flies. This current work is being undertaken in conjunction with AWI and its commercial partners.