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Alternative to mulesing

An Australian Wool Innovation Limited (AWI) project involving a team of scientists at the University of Adelaide is developing a non-surgical alternative to mulesing for the prevention and control of breech flystrike in sheep.

The researchers are working on a method of treating the breech of sheep with a protein that causes the wool to fall out, inhibits wool regrowth and contracts the skin. The result is essentially the same as mulesing — a wool-free breech area with few skin folds.

How does it work?

This treatment involves the injection of a naturally-occurring protein just under the skin. The protein disrupts the normal structure of the skin and after a few days the wool simply falls out.

As the area heals, the skin tightens and shrinks, removing skin folds around the breech. The treatment during research has been so effective that a three to four centimetre area of loose skin in the breech that has been treated with the new protein shrinks to a line that is no more than one or two millimetres wide.

The animal will therefore be less susceptible to soiling around the breech area and will be better protected against flystrike during its lifetime.

Another advantage of this treatment is that, unlike conventional surgical mulesing, there is minimal disruption of the epidermis (top layer of the skin).

What are the benefits?

The new method will involve no surgery and has no side effects.

A commissioned report has estimated that, without mulesing or an alternative, flystrike would kill up to three million sheep in years when conditions were conducive to flystrike.

The benefit of mulesing to Australian sheep producers is estimated to be around \$1.85 each year for every sheep mulesed, due to less deaths and more efficient production.

How is the research progressing?

AWI has invested about \$700,000 in research to develop a non-surgical alternative to mulesing, including \$400,000 in the University of Adelaide project, and has committed to invest at least another million dollars over the next three years. Results so far from this project are promising and AWI is providing all necessary support to help make the technology available as soon as possible. However the technology is not likely to be available for several years.

The technology has been proven to work in an experimental situation. The next step is for engineers to devise a quick and easy application method that is robust enough for use at lamb marking time. Field trials will then be carried out to ensure that the application method is practical.

In addition, AWI is investing \$240,000 with the Department of Agriculture Western Australia to develop a national set of mulesing guidelines, produce a training manual for mulesing workshops and implement an accreditation scheme.

Mulesing is named after an Australian stockman, Mr J.H. Mules, who invented and helped develop the procedure during the 1930s.



at a glance...

- AWI has invested about \$700,000 to date in research to develop a non-surgical alternative to mulesing, including \$400,000 on the University of Adelaide protein treatment project, and has committed to invest at least another million dollars over the next three years.
- The new treatment will remove the wool and stretch the loose skin around the breech with a result similar to mulesing.
- The benefits will be no surgery and happier, healthier sheep.

For more information

Call AWI tollfree on 1800 070 099,
visit www.wool.com.au, or get in touch with:

Dr Scott Williams

Australian Wool Innovation Limited
Project Manager
Animal Health

t 61 3 9347 5780

f 61 3 9347 8857

e scottwilliams@woolinnovation.com.au

Australian Wool Innovation Limited

ABN 12 095 165 558
Level 5, 16-20 Barrack Street
Sydney NSW 2000
GPO Box 4177 Sydney NSW 2001

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