

Selenium deficiency

What you will see

	Wool	Body weight	Behaviour	Death
Lambs born to deficient ewes		Decreased growth rate		Born dead or die soon after birth. Heart muscle may be pale on autopsy
Lambs three-weeks to three-months old		Mild cases survive with checked growth	Arched back, walk stiffly then lie on brisket then on side.	Slow. Leg muscles may be pale on autopsy
Weaners 3–18 months old	Open, dry fleece	Decreased growth rate, some with diarrhoea	Weak	Slow

Impact

- All sheep and any number can be affected but it is worse in young sheep.
- Early treatment is successful.

Likelihood

Selenium deficiency occurs in areas of all states except the Northern Territory. It is seen in areas with acid, coastal, sandy, sedimentary and granite soil types with young, clover-dominant pastures with high rates of superphosphate in high rainfall areas in spring.

Strategic prevention

Monitor soil and pasture for selenium. Test 3–6-month-old lambs in late winter and get advice on supplementation options. These include:

- Top dressing with selenium fertiliser.
- Intra-ruminal pellets (check product label for age of sheep suitable to be pelleted).

- Injections or drenches (some in vaccine or drench) at marking, weaning or before spring lambing for a short-term boost.

Tactical response

Quickly seek a professional diagnosis and differentiation from vitamin E deficiency and advice on treatment options:

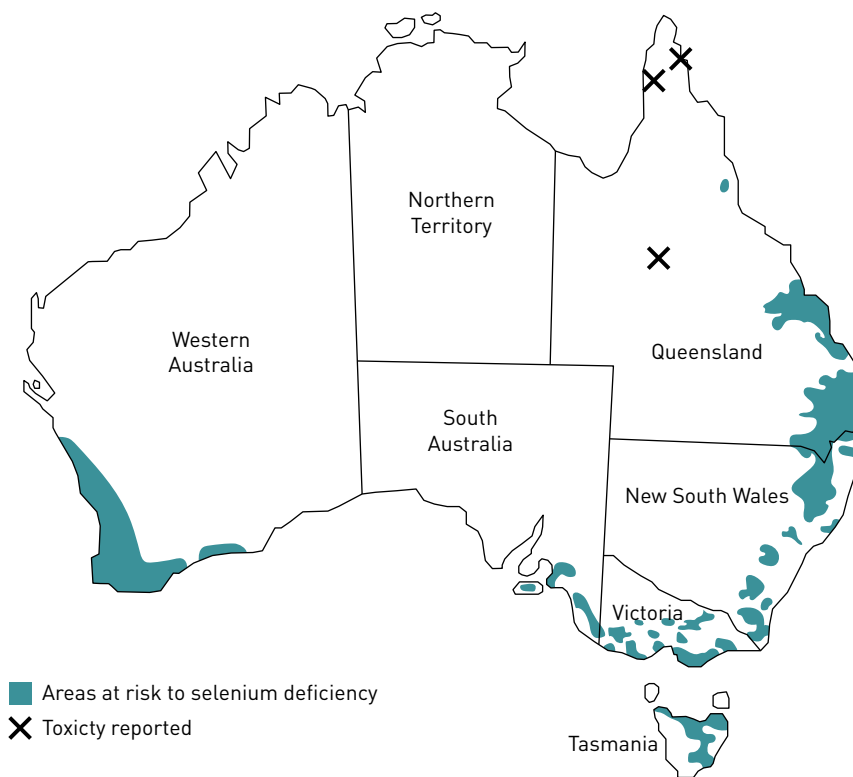
- Injections or drenches (some in vaccines or drenches).



TIPS AND INFORMATION

- **Warning!** Selenium is toxic, especially in lambs, and poisoning can't be treated so do not supplement without a diagnosed deficiency.
- Selenium incorporated in injections can be a higher poisoning risk than when incorporated in drenches.

The distribution of selenium (Se) deficiency and toxicity in Australia



Reprinted from: G.J. Judson and D.J. Reuter (1999), 'Selenium' in Soil Analysis: An interpretation manual. Editors K.I. Peverill, L.A. Sparrow and D.J. Reuter. CSIRO Publishing, Collingwood; pp. 325–329. Adapted by AWI and MLA.

Resource links

[MMFS Tool 11.7 Diagnosis and management of trace element deficiencies](#)

New South Wales

[Selenium deficiency in sheep](#)

[Assessing stock feed additives and mineral supplements](#)

South Australia

[Sheep diseases – the farmers' guide](#)

Victoria

Do I need to give selenium or vitamin B12/cobalt to my sheep?

Western Australia

Selenium/vitamin E deficiencies in sheep

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