

Browser's Bulletin in the

Hunter



Browser's Bulletin 30: What Causes Injection Site Reactions in Goats?

Injectable medications are a necessary part of routine goat herd health. Unfortunately injection site reactions can occur commonly, with some animals and breeds being more sensitive than others.

Many goat producers will notice a lump where they have injected Clostridial vaccinations. Vaccinations contain an adjuvant, which enhances the animal's immune response. Sometimes these adjuvants, particularly those that are oil based, can cause a tissue reaction. These reactions may be a small sterile nodule to several centimeters in diameter.

Figure 2, show an extreme reaction to a Gudair vaccination. Gudair vaccine is used for the prevention and control of Johne's disease. Goats commonly react to the Gudair vaccination within 7-15 days. An inflammatory nodule is produced at the injection site that gradually evolves into a persistent, cold, fibrous permanent lump which tends to be much more severe if the animal actually has Johne's disease.

Other factors that can contribute to injection site reaction in goats:

- Poor sanitation could introduce bacteria
- Dirty Needles and syringes used on multiple animals can introduce disease and reaction
- Disposable needles are designed for one use only, so more uses can contribute to abscess at the injection site
- Not cleaning and disinfecting reusable stainless steel needles between animals within a healthy herd
- Reusable needles become blunt after about 6-10 injections and need to be discarded
- When sick animals exist within a herd, producers should not reuse needles on other animals
- Needle and injection can cause tissue irritation which can manifest as an abscess and scarring in the muscle
- Poor handling technique allows the animal to move around, potentially contaminating the site and also commonly leading to tissue irritation.



Most swellings produced by vaccination are sterile but occasionally an abscess will form and this is usually due to faulty technique. If you have any further questions with regards to injection site reactions please email me at kylie.greentree@lls.nsw.gov.au

Reference: 1) Diseases of the Goat 3rd edition: Matthews, J. Blackwell 2009.
2) <https://articles.extension.org/pages/63184/goat-injections>
3) <http://www.flockandherd.net.au/sheep/reader/gudair-reactions>