

## General vaccination guidelines

Talk to your vet about when is the best time and which animals you should vaccinate. Record when and which vaccine you have used on which animals. Include the batch number, the expiry date and the dose given. Saving the vaccines' box tops/labels and writing the date given on the back is a useful shortcut.

### Read the manufacturer's instructions.

Vaccines cost exactly the same whether they are used correctly or incorrectly but the value to your herd will be greatly reduced if they are used incorrectly.

Intramuscular administration is not the same as subcutaneous administration; know how and where to give each. Ask your vet to demonstrate if you are unsure during his/her next visit to your farm.



Injecting with a dirty needle runs the risk of the animal reacting to the bacteria or dirt rather than the actual vaccine. This can lead to a poor vaccine response and a nasty abscess at the injection site.

A similar situation applies if the animal's coat is heavily soiled or grossly dirty.

Always enter the vaccine bottle with a sterile needle. Never re-enter a bottle with a needle used already for animal injection.

Remove all needles from bottles prior to storing.

Choosing the right needle helps. Use shorter needles (0.5 - 1.0 in.) for subcutaneous injections, use longer (1.5 in.) for intramuscular. Use shorter needles in younger animals to avoid nerve damage, etc.

Don't vaccinate animals, in poor health, poor body condition or stressed. This can lead to a poor vaccine response.

In larger stock, although intranasal vaccination isn't extremely onerous – it does require some skill and attention to detail. Ask your vet to demonstrate if you are unsure during his/her next visit to your farm.



Most vaccines need to be kept chilled until they are used. Use common sense. If you store most vaccines, as you would milk for your tea, you should be reasonably safe.

Be wary of vaccinating very close to calving, especially the last 14 days. The dam's immune system is suppressed at this stage and this can lead to a lower vaccine response. In addition, some vaccines should not be administered at all during pregnancy – check with your vet.

In very young cattle (< 3 months), maternal antibody from colostrum can interfere when certain vaccines are used intramuscularly or subcutaneously. This can lead to a lower vaccine response in this age group.

Unless you are intentionally using vaccination to face down an outbreak of disease, it is better not to use a vaccine when an animal is incubating infection or is clinically affected. It can lead to a lower vaccine response.

It is better not to use a vaccine when an animal is highly stressed (transport, castration, dehorning, etc) as the immune system is “preoccupied”. It can lead to a lower vaccine response.

If vaccinating with more than one product at a time, use opposite sides of the animal i.e. both sides of the neck, etc. Do not mix vaccines in the same bottle or syringe unless the instructions direct so.

It can take up to three weeks for a vaccine to give protection, longer if the manufacturer's instructions recommend a booster. Time your vaccination accordingly.



**Vaccination will**

- i. Reduce clinical signs of disease.
- ii. Reduce amount of virus shed when an animal does become infected – so reducing the number of others likely to become infected.
- iii. Reduce the severity of and the duration of the disease.
- iv. Increase the infectious dose required to establish an infection – so reducing the likelihood of an animal becoming infected.
- v. Prepare an animal for a new environment or premises.

In lots of ways, vaccines are used to make infection subclinical and non-consequential.

**Vaccination won't**

- i. Stop animal infection totally
- ii. Stop virus spread totally
- iii. Act immediately – it usually takes 1-2 weeks although intranasal vaccination works more quickly than injectable vaccination.
- iv. Act properly in the presence of maternal immunity – this is especially the case for live vaccines given intramuscularly or subcutaneously.
- v. Replace good husbandry – which reduces exposure to viruses and reduces stress. An overwhelming infection will swamp the protection provided by even the best vaccine.

**A vaccination programme alone is NOT a herd health programme.**

