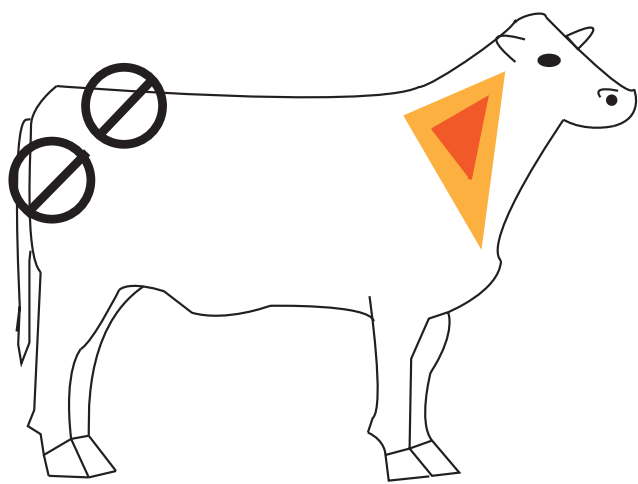


Injection Site Management Tips

Injection Site Placement

Any injection in muscle decreases meat quality and tenderness. ALWAYS use the neck for injections. Injections in the hind-quarter can damage numerous high priced cuts.



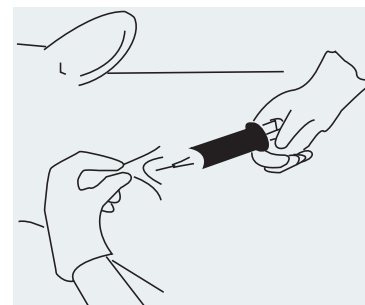
Do Not Inject Subcutaneous (SQ) Intramuscular (IM)

All SQ and IM injections must be given in the triangle area in front of the slope of the shoulder.

The Product

1. Choose low-dose, low-irritant, subcutaneous (SQ) products whenever possible.
2. ALWAYS read the label!
3. When in doubt on instructions or administration ask your veterinarian.
4. Protect vaccines from exposure to heat and UV light.
5. Calculate the proper dose based on label directions.
6. Booster all vaccines as directed by the label.
7. NEVER mix products.
8. Modified live vaccine begins to lose effectiveness 60 minutes after mixing.

Sub-Q Injection Technique



Needles and Syringes

1. Use only quality, sterile needles and syringes.
2. Change needles every 10-15 head.
3. For subcutaneous (SQ) injections, use a 16- or 18- gauge B-Bevel needle.
4. 1/2- to 3/4-inch long.
5. For intramuscular (IM) injections, use a 16- or 18- gauge B-Bevel needle 1-inch long.
6. NEVER use a bent or contaminated needle.
7. Mark syringes and keep them separate: modified live products in one, bacterins or killed products in another.

Herd Health Plan

Developing and following a herd health plan helps to reduce your economic losses through prevention and/or early intervention. General herd health guidelines include:

1. Offer animals safe, well-managed feedstuffs.
2. Practice "Low Stress" cattle handling techniques.
3. Keep records for at least three years from the transfer of cattle and make available to the next production sector.
4. Control external and internal parasites.
5. Establish a veterinarian/client/patient relationship.

Veterinarian/Client/Patient Relationship (VCPR)

- For the health and well-being of cattle, it is critical for a veterinarian-client-patient relationship (VCPR) to exist between veterinarians, their clients, and their patients.
- A valid VCPR is required for all prescription medications, extra-label use of non-prescription medications and all FDA feed medications that require a "Veterinary Feed Directive" (VFD).

Needle Selection Recommendations

Injectable viscosity	Route of Administration								
	SQ (1/2 to 3/4 inch needle)			IM (3/4 to 1 inch needle)			IV (1 to 1 1/2 inch needle)		
	Cattle weight			Cattle weight			Cattle weight		
	< 300	300-700	> 700	< 300	300-700	> 700	< 300	300-700	> 700
Thin Example: most vaccines	18 gauge	18-16 gauge	16 gauge	20-18 gauge	18-16 gauge	18-16 gauge	18-16 gauge	18-16 gauge	16-14 gauge
Thick Example: thick antibiotics	18-16 gauge	18-16 gauge	16-14 gauge	18-16 gauge	18-16 gauge	16 gauge	18-16 gauge	18-16 gauge	16-14 gauge

SELECT THE NEEDLE TO FIT THE CATTLE SIZE (USE THE SMALLEST PRACTICAL SIZE WITHOUT FEAR OF BENDING)

Gauge – The diameter of the needle, needs to fit the viscosity and be adjusted to the cattle weight.
Length – should fit the route of administration IM or SQ and be adjusted to cattle weight.

