

Verified Beef

The Impact of “Being A Little Off” ...

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For many medicines and vaccines, using an injection as the method of delivery is the best way to go. Although the purpose of an injection is to benefit the animal, if the proper technique is not used an injection has the potential to do more harm than good to both the animal and the quality and safety of the meat we eat. Problems with injection technique can affect absorption, overall effectiveness and can even cause drug residues, scar tissue (and a tough eating experience) and abscesses...all of which will cost you money in more ways than one. We will be discussing what it really costs to “be a little off”, how you can find out more about the products you’re using, and how you can handle these products better to maximize success...and in the end improve your bottom line, safety and quality of your product.

THE IMPACT OF BEING A LITTLE OFF...

Injecting one animal once is literally pocket change in some situations, but doing it improperly over many animals quickly eats into your bottom line and can, in worst case scenarios, even end in disaster. To realize the full impact of even the slightest treatment errors it helps to look at the numbers.

Cost analysis

An average vaccine injection can for example, cost around \$2.50. However, if you look at the wide range of products available (antibiotics, vaccines, etc), prices can range anywhere from as little as \$0.40 to as much as \$40 per injection.

Making even the smallest of errors can impact that animal as well as affecting future growth and the safety and quality of your end (food) product. Expand this over a large number of animals and your profits are soon disappearing. For example, not cleaning and maintaining injection equipment, using poor injection techniques, having harmful storage conditions (even temporary ones) or even “eyeballing” the weight wrong can very quickly alter any positive effects hoped for in a treatment or vaccination process.

The consequences of such unintentional errors can for example lead to:

- Treatment failure resulting in animal suffering and incapacitation, poor growth rates and even death or even increasing the risk of spreading the disease to others in the herd.
- Vaccine failure resulting in poor to no immunity response, increases morbidity (disease) and mortality (death) rates whenever new animals are introduced or transferred to new environments.
- Drug residues in meat will result in rejections and overall brand damage.
- Excessive trim cuts into profits at slaughter and is largely due to abscess, scarring, and broken needles.
- Medications that are unintentionally allowed to enter into the bloodstream because of poor inject technique can result in shock or death of the animal being treated.
- Poor drug combinations or treatment methods may result in adverse reactions or treatment failure.
- Accidental human injection resulting in health issues for you.

Table 1. Added Cost of Extra Doses.

Vaccination Cost \$2.50 per head	Dose (cc)	Cost of 100 animals	Difference	Cost of 1000 animals	Difference
Rate on label:	1	\$ 250.00		\$ 2,500.00	
Extra dose by:	0.25	\$ 312.50	-\$ 62.50	\$ 3,125.00	-\$ 625.00
	0.5	\$ 375.00	-\$ 125.00	\$ 3,750.00	-\$ 1,250.00
	0.75	\$ 437.50	-\$ 187.50	\$ 4,375.00	-\$ 1,875.00
	1.00	\$ 500.00	-\$ 250.00	\$ 5,000.00	-\$ 2,500.00

Other Benefits to Rancher and Industry Overall:

- Helps to minimize product recalls
- Adds to food safety programs beyond farm
- Tool to manage risks (ie. antimicrobial resistance)
- Enhances crisis management ability
- Potential for increased market share
- Satisfaction of doing things right

All of the above result in added costs to your operation. Think about even the simplest of effects:

- One good detectable needle costs 25 cents. This equates to 2.5 cents per shot if changed every 10 animals.
- It only takes 1/100 vaccinations to fail to pay for the extra needle alone....without even considering the loss of production or end product losses due to added trim because of scarring and abscesses caused by needle burrs.
- Guessing the weights inaccurately causing over or under dosing in an animal can result in wasted product as well as creating potential conditions for treatment failure, antibiotic resistance or even adverse reactions.

Just the impact of overdosing (without even considering product damage, adverse reactions or treatment failures) can add up quickly (Table 1). Multi-dose syringes are great tools during processing but without proper maintenance and recalibration they can cost you if they're not functioning properly.

Without weigh scales a person unfamiliar with your animals or is poor at estimating

VBP TIPS

WHO APPROVES WHAT?

Several government agencies work together to ensure meat does not contain harmful residues.

Veterinary Drugs Directorate approves drugs for use in food-producing animals
Canadian Food Inspection Agency approves feeds and veterinary biologics (e.g. vaccines)

Pest Management Regulatory Agency registers pesticides

Each agency issues a registration number for the product:

- Drugs: Drug Identification Number (DIN);
- Feeds: Feed Registration Number;
- Veterinary Biologics: US Veterinary Licence Number or the Canadian Veterinary Biologics Establishment Licence number, and/or,
- Pesticide: Pest Control Products Number (PCP).

Testimonial

Clint and Karen Thompson, San Jose Cattle Company Ltd., 150 Mile House, BC

"VBP has helped us to keep records of cattle numbers and treatment protocols that are needed at different times of the year for various reasons. As a result of enrolling in VBP our information is accurate and easier to find than most other types of record keeping that we've tried. We feel strongly that VBP can only enhance the marketing aspects of beef by showing the public that what we do follows all the good production practices related to meat safety." (January 2011)



Lynn Jackson, Canyon Tree Farms, Fort St James, BC

"Being enrolled in VBP made us feel good about what we did before. Yes there were some extra records, but most of it was what we already did. What we found was that it really helped us improve and streamline our records so they work so much better for us now. As one partner does the majority of work it makes it so much easier to explain what's been done when I'm down or away." (December 2010).

body weights can quickly add the dollars even over 1 animal (Table 2). Using weight tapes are a possible economical substitution, but if they are not replaced annually they too will “go out of calibration” by simply stretching over time adding pounds to your estimate. If you multiply the impact of overestimating on weights over an entire herd it’s staggering. (Note the FSSI fund offered through ARDCorp will fund up to a maximum of \$3,000 towards the purchase of a scale or chute – for eligibility and application details go to www.ardcorp.ca).

Sadly we are only fooling ourselves when we think we are cutting corners on the little things like storage temperature, cleanliness, injection methods and equipment maintenance. However all these affect how the drug works and add up over time, over multiple events and errors and is multiplied over large numbers of animals at processing time. Add them all up and the cost will certainly impact your operation’s bottom line. Doing the simple steps outlined in the Verified Beef Production program will save you time, reduce waste and improve your overall product quality. It’s in the numbers.....a “little off” is no little thing.

Table 2. Cost of Injection.

Animal weight (kg)	Cost of injection (\$/ml) (injection rate 7 ml/100 kg)			
	\$0.40	\$1.00	\$2.50	\$4.00
500	\$14.00	\$35.00	\$87.50	\$140.00
550	\$15.40	\$38.50	\$96.25	\$154.00
600	\$16.80	\$42.00	\$105.00	\$168.00
650	\$18.20	\$45.50	\$113.75	\$182.00
700	\$19.60	\$49.00	\$122.50	\$196.00
750	\$21.00	\$52.50	\$131.25	\$210.00
800	\$22.40	\$56.00	\$140.00	\$224.00
850	\$23.80	\$59.50	\$148.75	\$238.00
Cost per 50 kg one animal:	\$ 1.40	\$ 3.50	\$8.75	\$14.00
Cost per 50kg Herd of 100	\$140	\$350	\$870	\$1400

BC-VBP
Management
Group:



Canada's Beef On-Farm Food Safety Program






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*Funding provided by Growing Forward—Federal-Provincial-Territorial initiative
Through the Food Safety Systems Implementation (Producer) Program*





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