## NORTHWEST VETS NEWSLETTER

June 2016

## Prepare Your Cows for a Career Change

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Culling is an important component of today's dairy industry, with culled dairy animals representing approximately 25% of the beef market in the US. This represents an important revenue stream for dairy farmers, especially in times of low milk prices. According to the 2007 National Animal Health Monitoring Service (NAHMS) study, upwards of 15-20% of the gross herd revenue on US dairies is from the sale of cull animals. Every dairy cow has the opportunity to "change careers" and enter the beef food chain. However, culling must be done in a thoughtful and timely manner to maximize the value received and ensure the quality of our food system. An examination of the most frequent reasons dairy cows are condemned, or turned away, at the slaughterhouse will help determine who and when to send to market to maximize potential profit and protect the food chain.

Carcasses can be condemned before harvest while in holding pens, or post-mortem on the slaughterhouse floor. Pre-harvest, cows are most often condemned for evidence of bovine lymphosarcoma, a cancer that results enlarged lymph nodes evident on visual inspection, or for severe lameness or inability to rise. Cows can also be condemned pre-slaughter for signs of systemic infection, primarily in the form of fever (temperature > 102.0 F), but also increased respiratory rate or effort. Post-harvest, the presence of antibiotic residues is the primary reason for condemnation. A sample of all carcasses is selected at random for routine testing, however if the carcass has evidence of recent injections, it will be held and tested for antibiotic residues.

Even when carcasses aren't condemned, value can be lost for many preventable reasons. Injection site damage and bruising are the most common losses of carcass weight, sometimes as high as 25% of the total market weight of the animal, and can turn a cut of meat from a high value product to ground beef. One study found that all intramuscular injections – even just sterile water – have a permanent negative impact on beef quality in the area given.

Poor body condition is another significant factor in decreased carcass value. Cows in the 3.0 - 3.75 Body Condition Score (BCS) range produce the most valuable beef. Each day a declining cow continues to be milked is a loss of financial benefit if she was shipped earlier. In addition, skinnier cows bruise easier, resulting in increased trim losses as described above.

There are several strategies to improve your beef paycheck. Create a culling management plan with the help of your herd health veterinarian. Who are you going to cull and what are the indicators it is time to do so? Perhaps it is high somatic cell count cows when on the threshold of a new milk premium or difficult breeders when they go below a threshold of milk production. Don't just wait for cows to become ill to consider culling.

Improving the quality of the cows culled is another easy step to improving your bottom line. Injections should ideally be given in the neck rather than the rear end to decrease meat loss in prime cuts. Always follow veterinary recommended withholding times on all medications to prevent condemnation and possible penalties. Ship cows before they lose too much body condition to increase value, or even still, feed that cull cow a little more before sending her. Be conscious of handling methods during transport to decrease bruising loss.

As consumer scrutiny becomes ever more invasive and more commercial food chains take an interest in animal welfare, dairy producers can stand to benefit greatly by thinking of all their dairy cows as future beef cows. Before you make the decision to ship, ask yourself a simple question – would I eat this cow?