

**SELECTION FOR RESIDUAL FEED INTAKE IN BEEF CATTLE QUANTIFICATION PROTOCOL**  
**Addressing October 29-30, 2009, 2<sup>nd</sup> Round Protocol Review Questions and Comments**

#	Section	Type of Comment	Comment / Statement	Proposed Resolution and Modifications made to Protocol
1	N/A	General	If the sample calculation is correct at \$2.40 Per head for offsets, ~\$21 per head for feeding savings. This is substantial. Why aren't more doing this.	<p>Main barrier is bringing animal to centralized facility to test. Less than 0.5% bull tested for RFI. Works out to be around \$70 per head to test. This value is decreasing over time and more facilities offer measurement of RFI. There are many barriers but that is why we developed the protocol to help incent this management practice for beef cattle.</p> <p>No change to protocol.</p>
2	Applicability	Technical	What about genetic tests? This protocol does not look at genetic markets.	<p>This technology is still in developmental stage. Genetic market test is where we want to get to and is being worked towards. We are not there yet.</p> <p>Add statement that current version does not include use of genetic markers (in Protocol Approach section)</p>
3	Quantification	Technical	Question on within breed specifics for efficiencies.	<p>The feeding efficiency trait is not breed specific. Essentially, within every population there will be a similar range of efficiencies. Within the beef industry, we have made no genetic process for the efficiency.</p> <p>Appendix C lists procedure of approved testing facilities. And Protocol Applicability section lists criteria.</p> <p>No change to protocol.</p>
4	Quantification	Technical	Heifers are being fed and have different dry matter intake than steers within breeds, do you account for that in protocol.	<p>Yes, as typically animals are grouped in feedlots so there will be an inherent separation of gender. Feedlots have established common practices which generates records used for this protocol.</p> <p>In the protocol, animals are separated in the Project Condition for quantification.</p> <p>No change to protocol.</p>

5	Quantification	Technical	<p>The impact of methane in the manure and the N<sub>2</sub>O, is it significant enough to worry about spreading manure. The main value is feed value. Could involve bringing in feed from outside the province and exporting nutrients (Manure)? Do we need to worry?</p>	<p>The protocol doesn't worry about where the manure is spread. All the protocol figures out is that it is less and how much less. It assumes it is going to be spread. If it is managed differently than it would be part of a manure management protocol.</p> <p>No change to protocol</p>
6	Implementation	General	<p>Penetration rate will take a long time because the cost &gt; return. Needs to wait until it is more economical.</p>	<p>Yes but Australians have done some work with economic modeling analysis. It is the feed savings that really drive this. Economic benefits from feed utilization – it's not the carbon credits, as is meant by the whole system itself. Offsets are meant to provide some additional incentive to implement these reduction practices/projects. Australians have looked 25 years out (based on \$AU300 per test) and estimate that the break even place would be in 7 years.</p> <p>It is currently cheaper in Alberta per animal thus quicker return.</p> <p>No change to protocol</p>
7	Applicability	Technical	<p>As the science improves, you will move towards genetic markers applicability for measurement of RFI in animals?</p>	<p>Yes, the intent is to do this in the future (perhaps 2<sup>nd</sup> generation protocol, review in 5 years). At this time, individuals at the University of Alberta are researching this right now – looking for genetic markers for RFI and others that provide consistent peer reviewed results... it's too soon to include genetic markers as too variable and not deemed valid right now within the scientific community. It has not successfully been validated in US, Canada, Australia or Europe right now, but there is a lot of interest worldwide.</p> <p>Information contained in Appendix A guidelines measuring animals and procedures to conduct measurements.</p> <p>No further changes to protocol.</p>