Suspected Selenium Toxicity Case Study – 4 Investigative Groups

1. Animals – samples, blood, liver, other tissues, symptoms, % death loss, cows, calves, horses, Se and other mineral analyses, indicative of toxicity/deficiency?

2. Feeds & water – hay, supplement, Se and other mineral/nutrient analyses, calculation of mineral intake, toxic/not toxic?

3. Overall management – vaccine protocol, pasture rotation, AI protocol, breeds, indications of toxic plants, other potential problems that could have caused the deaths

4. Mitigation – potential methods to prevent/alleviate problem in the future

What We Know

- 306 cows, ¾ of herd = Saler/Angus, ¼ of herd = Angus, Saler/Angus bulls

- Started calving March 15th

- So far rancher has lost 20 calves, has 180 live calves, ~ 100 cows left to calve

  - Some were born dead

  - Some died shortly after birth

  - Longest period calf was alive was 2 days

  - Calves born alive – no visual symptoms besides being depressed, and won’t get up

  - This year is worse than last year

- 2011 – first diagnosed with Se toxicity, with significant death loss

- 2012 – problem with “overeating,” i.e., clostridial infections, also a few calves diagnosed with Se toxicity

- 2013 – average calving year