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Dairy Newsletter  
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## Interesting Facts from the American Association of Bovine Practitioners Conference

### Prime Boost

Prime Boost is a concept that has been present in human medicine for a few years now, it works as a way to get the most out of your vaccinations. Basically prime boost means to vaccinate your cattle via one route (such as intranasal) and booster through another route (such as an IM injection) and by doing this the calves and cows develop a better immune response. An example of this is vaccinating 1-3 week old calves with Inforce and then vaccinating with Bovishield Gold at weaning. Both of these vaccines cover the main viral respiratory pathogens of cattle and with this protocol we can get the best immunity possible against IBR, PI3, and BRSV.

### Fatty Acid Supplementation

Fats have been used in lactating cow rations for quite some time now, but not all fats are created equal! In fact as a general rule it appears the palmitic fats are the best and calcium salts of polyunsaturated fatty acids are the least beneficial. Palmitic fat appears to be taken up by the mammary gland more efficiently, will increase milk fat more effectively, will increase milk production up to two times that of steric fats (without causing a greater drop in body condition), and will actually increase fiber digestibility of the diet. Unsaturated fatty acids, however; are actually toxic to the rumen and feeding calcium salts of unsaturated fatty acids can actually result in decreased dry matter intake and you won't see the same increase in milk fat or milk production as you do when feeding palmitic prills.

## **Subclinical Milk Fever**

Although we seem to have clinical milk fever figured out, subclinical milk fever was a hot topic at this year's conference. With subclinical milk fever we don't see down cows but it still cause significant issues in the transition cow including; immune suppression, retained placentas, metritis, increased incidence of twisted stomachs, and decreased conception at first AI breeding. An easy way to find out if this is an issue on your farm is to submit blood samples from the next 5 – 10 cows that calve (at 1 – 5 DIM) to test for calcium levels. If we discover low calcium a good way to prevent this problem is to give every cow that calves a transition calcium bolus at calving and another one 12 hours later. There will likely still be the occasional clinical case of milk fever; with these cows it is critical to give oral calcium (either a transition bolus or calcium propionate in a stomach pump) IN ADDITION to IV calcium in order to provide a longer lasting form of calcium for the cow after the IV calcium is used up.

## **Ketosis in Ontario**

Dr. Todd Duffield presented the results of his study looking at the prevalence of Ketosis on Ontario herds. This study looked at the majority of herds on DHI and found that the average herd has 20% of fresh cows affected and the best 10% of herds have less than 10% of their fresh cows affected. Some interesting trends were: Robot herds on average have 5% higher prevalence of ketosis, Jersey's tend to be at an increased risk, there is less ketosis in the summer, and an increased fat yield at the last DHI test before dry off indicates a reduced risk of ketosis during the transition period. DHI's ketoscreen was a useful tool to detect ketosis; however, it only catches about 2/5 of the cases (because it cannot get to all cows during the first 14DIM). Therefore, the BHB blood meters should be used every 1-2 weeks to ensure that every cow with ketosis is caught and treated early before more serious health problems develop.

Dr. Rachel Poppe

