cur when animals are managed as groups. We should always remember that vaccines cannot:

- protect against agents not in the vaccine;
- prevent disease that is already present;
- stop the immuno-suppressive effects of stress;
- correct "a-grocery-osis";
- stop rain, snow, mud or dust;
- protect against diesel smoke or hot shots.

Vaccines stimulate the normal immune system so that future exposure to the vaccine agent or its disease causing counterpart, results in a rapid, specific response. Using vaccines is analogous to taking defensive driving classes. The defensive driving class is supposed to teach an individual how to rapidly respond to dangerous situations. Taking the course does not guarantee you won't have an accident; but rather it should give you a better chance of avoiding or surviving an accident. Vaccination is driver's training for the immune system. The immune system is provided the opportunity to respond to a non-pathogenic (MLV, killed, subunit, vector, etc.) form of disease agent at some time prior to exposure to the wild or virulent disease agent. If the timing of vaccination is accurate, the animal or herd resistance level will be high when exposure to the virulent disease agent occurs. In the event timing is off, the response rate of a primed (vaccinated) immune system will be more rapid than that of a non-primed system. Having been vaccinated does not guarantee the animal will not get sick, or that no animals will die. Rather, those animals that responded to the product should be able to resist more challenge than animals that were not vaccinated.

All of this discussion is important to remember when assessing the value of a vaccination program. The expense side is fairly obvious. The return side is dependent on a number of biological variables. It is not sufficient to assess the value of a vaccination program solely on the outcome of the last truck load of calves. In the end, vaccination programs must be evaluated on the ability to reduce disease in situations where we know disease is likely to occur.

Abstract

Bovine ketosis and somatotrophin

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Aspects of the metabolism and health of 63 cows which had been treated with different amounts of bovine somatotrophin (BST) daily in the preceding lactation were compared with those of 25 control cows. Twelve of the control cows and none of the cows previously treated with BST were classified as ketonaemic, and nine of the control cows but only two of the cows previously treated with BST had clinical ketosis. Some, but not all, of the decrease in the risk of clinical ketosis was attributable to the lower body condition score of the cows previously treated with BST. The clinically ketotic cows had a greater risk of other illness in the first 10 days after calving than their herdmates, but the ketonaemic cows had a significantly lower risk of other disease during this period.