



# Beef Tech-Line



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## 'Tis the Season

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It's that time of the year again. Time for the spring calf crop to leave the cow and, in many cases, leave the ranch all together. Most of us know the familiar sound of bawling calves "ringing in the season". We are also familiar with the animal health problems that can accompany the weaning and receiving period. Bovine respiratory disease (BRD), in particular, can devastate newly weaned or received calves and can have a major impact on the economics of production. Death loss due to BRD generally averages less than 2 percent for newly weaned or received calves. However, greater economic losses are often incurred through the cost of treating morbid (sick) calves and the cost of lost production. Nearly all of us have either experienced or heard of cases involving greater than 50 percent, and sometimes approaching 100 percent, morbidity in newly received calves. Thus, death loss does not have to be high for BRD to have a major impact on production economics.

Newly received calves face a number of challenges. First, stress associated with weaning, commingling, transportation, and arrival in a new environment can compromise their immune system. Second, calves can be exposed to a plethora of infectious agents in their journey from the ranch to their final destination. Third, the nutritional status of newly received calves may already be compromised due to inadequate nutrition prior to arrival. Fourth, newly received calves generally exhibit low voluntary feed intake. Therefore we are challenged to provide adequate nutrient intake to promote growth and health/immunity within the constraints of low voluntary feed intake.

Interestingly, stressed calves will actually consume greater quantities of a high-energy diet than they will of a low-energy (high-roughage) diet. This results in greater performance in calves fed high-energy diets during the receiving period. But wait! Before you rush out and start calves on a ration that is 62 Mcal NE<sub>g</sub>/cwt, you should also know that increased morbidity rates have been reported with the feeding of high-energy receiving diets. There appears to be a similar paradox with crude protein (CP) level in receiving diets; as CP level increases, performance improves, but beyond approximately 16% CP (DM basis) morbidity rate also increases. As with almost everything else in life, moderation seems to be the key. Stay away from the extremes. We should provide a highly palatable receiver diet that is 13 to 16% CP (DM basis), is moderate in energy concentration, and is fortified with the key vitamins and minerals at levels that will compensate for decreased feed intake and possible pre-existing nutrient deficiencies.

A sound vaccination program is imperative and can go a long way toward preventing illness. However, it is becoming increasingly evident that there is an interaction between nutrition and health. Copper, zinc, selenium, chromium, and vitamin E play key roles in the immune response of calves and may impact the level of immunity realized from vaccinations. Supplementation of these nutrients has shown decreased morbidity rates in newly received calves. Increased potassium requirement of stressed calves is well documented and can be as much as two times the potassium requirement of non-stressed calves. The degree to which calves are deficient in these nutrients upon arrival can directly affect their health status.

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Proper application of a weaning/receiving program that includes pre-weaning and post-arrival vaccinations coupled with sound nutrition is essential to ensure newly arrived calves the greatest chance for a healthy start. To provide newly arrived calves with adequate energy and nutrient intake, we must provide them with a receiving ration that is both nutritionally fortified and highly palatable. I can't emphasize this enough. Fortunately, Hubbard Feeds Inc. (HFI) has a full line of starter feed supplements including StressGuard 2, StressGuard 1, StressGuard Starter Concentrate and StressGuard CPS. The product of choice is generally dictated by palatability of available feedstuffs, the level of management expertise at a particular operation, and the logistical constraints of the operation. Proper use of any of the HFI starter feeds/supplements will ensure optimum nutrient fortification to promote health, immunity, and performance. But we must not forget the palatability portion of the equation. We can fortify diets until the cows come home but if they don't eat it, we've shot ourselves in the foot. StressGuard starters solve both sides of the equation for us — excellent palatability and key nutrient fortification. In addition to StressGuard, CRYSTALYX® Brigade® is a research-proven tool for the management of high-stressed calves. Numerous research trials have shown the benefits of including CRYSTALYX® Brigade® lick tubs in the weaning/receiving pen. These benefits include improved performance and reduced morbidity.

Starting calves on feed and keeping them healthy can be a formidable challenge. But let's focus on the positive. We have tremendous opportunity to promote the benefits of our products and help improve the bottom line of our customers. By improving the bottom line of our customers, we can insure that we will be around to hear bawling calves "ring in the season" for years to come.

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