

**Weaning Made Easy**  
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Data collected on the Georgia Challenge cattle and other feedlot studies demonstrate that **weaning of the calves is the most important management procedure we have to reduce pneumonia in the feedlot**. The health status of our cattle is an economic issue whether we retain ownership or sell calves at the local livestock auction. Buyers have a preconceived idea about cattle from our area. This preconception was researched in a September 2002 issue of Drovers Journal entitled “Feedyards critique southern cattle”. The article reported the results of a survey of the 135 high plains feedlot managers, representing a one time capacity of 4.5 million head, and their preconceptions of southern cattle. Some quotes from the article; southern cattle “remain inferior to northern cattle for health, feeding performance, and carcass characteristics” , “what feedyards are telling us is that they are not satisfied with southern cattle”. They assume that if the cattle come from our area they are more likely to experience pneumonia in the feedlot and **our cattle are discounted in value because of that preconceived idea**. Eighty one percent of these feedlots pay premiums for cattle that have a good health history. If we are to address these preconceived ideas about our cattle, we need to validate their health.

Cattle that get sick do not function well in a feedlot, have higher death losses, reduced gain, reduced feed efficiency, and have less desirable carcass traits. Preconditioning is a management program that increases the ability of calves to adapt efficiently to stocker or feedlot rations and the environment. **Managing for a smooth transition from nursing calves on pasture to stocker or feedlot cattle involves nutrition, handling, pre-weaning, parasite control, castration, dehorning, and immunization**. The goal of preconditioning is to increase the profit of cattle producers (feedlot, stocker and cow/calf) by improving the health of newly arrived stocker or feedlot cattle.

To understand why preconditioning helps, we need to examine the disease process, and how cattle get feedlot pneumonia. The normal barriers that prevent the development of pneumonia in cattle start with the mucus cells that line the trachea (windpipe) and nasal areas. The function of these cells is to ensure that the entire windpipe is covered with mucus. Dirt, bacteria, or other small particles stick to this mucus when they are inhaled. The trachea also has small hair-like structures (cilia) that protrude into the trachea. These cilia have a rhythmic beat or wave that occurs only in one direction (toward the throat). As a result, bacteria, viruses, and dust inhaled stick to the mucus, the cilia transport the mucus up the trachea to the back of the mouth where it is swallowed. This system works exceptionally well until a virus infection, excessive dust, and/or bacteria and/or stress causes the system to break down. Weaning, social commingling, feed changes and hauling the calves causes stress. Stress on the calves is additive and causes the calf’s body to produce cortisol that reduces the activity and effectiveness of the white blood cells that are needed to fight infection. This reduction of white blood cell activity lasts for a few days to weeks depending on the level of stress. The more stress involved, the more cortisol released and the longer the reduction of white blood cell activity resulting in a weaker ability to fight infection and ultimately more infections and therefore, more cases of pneumonia in these calves. **Since stress on the**

**calves is additive, if we can break up the causes of stress over time we can reduce the amount cortisol and length of time there is reduced white blood cell activity.** We know that stress factors include, weaning, feed changes, shipping, and commingling with other cattle. If the calves are weaned and started on feed several weeks before they are shipped and commingled the total stress level at any one time is reduced, the amount of cortisol is lower and the reduction of white blood cell activity is minimized. A good preconditioning program, starting calves on feed and weaning for 45 days prior to shipping relieves the total stress at sale time and increases the immunity to prevent infections that can cause respiratory problems and pneumonia. This is in addition to a good vaccination program using the appropriate vaccines at the appropriate times: a cornerstone in increasing the immune status of cattle.

One of our major obstacles to weaning calves on the farm is lack of facilities. Jim Gerrish at University of Missouri Forage Systems Research Center developed a Low-Stress Weaning Management program that addresses most of the reasons for not weaning calves prior to sale: Too much trouble; Don't have facilities; Fence won't hold the calves; Fence won't hold the cows; Let them get sick at somebody else's place; and It doesn't pay. Jim explains how **weaning doesn't have to be hard. Weaning the calves in the same pasture they were raised provides the same environment, and the same diet.** The procedure Jim uses for pasture weaning is to construct an electric fence that divides the pasture and allow the cattle to become accustomed to the fence. Then on days 1 – 3 of the weaning period the cows and calves separated with 4-strand electric fence. By day 7 the calves are grazing out on their own behind single wire fence. The system requires a good quality pasture and cattle trained to electric fence. Jim has been working with this system since 1985 and has weaned over 3400 calves. **In that time they have treated only two calves out of the 3400 total calves and had a death loss of 2 calves.** The average daily gains have been 1.5 pounds per day for the initial 21 days of weaning. This pasture weaning concept is remarkably simple and if used more commonly in our area it could result in fewer calves getting pneumonia in the feedlot and an improved perception of our cattle. That improved perception of feedlot owners could just lead to increased value for our calves in general.