



# Current Report

Cooperative Extension Service • Division of Agriculture • Oklahoma State University

## Health and Nutritional Management of Preconditioning Programs

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The vaccination and health program for preconditioned calves should (1) increase the value of the calf to the prospective buyer and (2) minimize health problems for the owner during the weaning and preconditioning period. The feeding program should likewise be designed to minimize health problems and to profitably increase calf weight during the preconditioning period.

### VACCINATION AND HEALTH PROGRAM

All calves should have been weaned at least 30 days prior to sale time. Minimum vaccination and working recommendations to be done at or before weaning are:

IBR, PI-3 (intramuscular injection)  
Blackleg-Malignant edema  
Deworm (Ivermectin if approved)  
Castrate (healed at sale time)  
Dehorn or tip (healed at sale time)  
Treat external parasites

Optional vaccinations and procedures that may be recommended by local conditions or buyer preference are:

BVD  
Haemophilus  
Lepto

Sale rules will dictate minimum procedures. However remember that immunizations are important during the preconditioning period as well as after the sale. It is recommended that local veterinarians be involved in planning the program.

Implanting has been demonstrated to increase both gain and efficiency of grazing and fed cattle. Since buyers will almost certainly want their cattle implanted before going to wheat pasture or to the feedlot, they must know the implant history of the calves in the sale (what they were implanted with and when they were last implanted). For this reason, it is recommended that all calves be implanted at weaning or that none be implanted so that buyers can plan for reimplanting.

### FEEDING DURING PRECONDITIONING

Gains during preconditioning depend on:

1. How quickly the calves begin to eat.
2. The energy level of the diet, assuming that protein, minerals and vitamins are adequate.
3. Amount of feed consumed.
4. Length of the feeding period.
5. Quality and degree of fleshing of the calves at weaning; good calves outgain poor calves and thin calves may outgain fat calves.

Whatever the gain, it is important that the cattleman be able to predict calf gains so that the most profitable feeding program can be selected. The most profitable feeding program will likely change from year to year as feed costs change relative to cattle prices and the price spreads between heavy and light calves change.

Preconditioning feeds must be highly palatable. Remember that calves which have just been weaned may not eat for 3 or 4 days, especially if they have not previously been exposed to feed in a trough or self-feeder. Because rumen bacterial numbers greatly decrease after a couple of days of fasting, calf performance may be slowed for the next week or so since several days will be needed for the rumen to function at peak efficiency again. Providing some creep feed for 2 or 3 weeks before weaning will usually alleviate the problem of poor consumption the first 3 or 4 days after weaning. If calves have not been fed previous to weaning, they should be given recognizable feed, such as hay, or a highly palatable mixed ration.

It is best to wean in a small pen with feed and water highly visible and accessible. Small pens reduce fence walking and are desirable unless dust becomes a problem.

It is impossible to exactly predict gains during preconditioning. However, reasonably accurate estimates are necessary for predicting feed costs, sale weights and breakeven prices. With this in mind, sample diets are shown that should give gain in three ranges: 0.5-1.0 lb/day, 1.25-1.5 lb/day or 2.0 to 2.25 lb/day.

0.5-1.0 lb/day

1. Prairie hay (full feed)  
Soybean meal - 1.5 lb/head/day
2. Alfalfa hay (full feed)
3. Fescue hay (>9% Crude Protein, full feed)  
Supplement (feed 3.0 lb/head/day):  
ground or rolled milo - 86.0%  
soybean meal - 11.0%  
dicalcium phosphate - 1.2  
limestone - 1.1  
salt - .7
4. Bermuda hay (>9% crude protein, full feed)  
Supplement:  
feed 3.0 lbs of the supplement shown for  
fescue hay or  
feed 1.5 lbs of soybean meal.

1.25-1.75 lb/day

1. Alfalfa hay (full feed)  
Supplement (feed 5.0 lb/head/day)  
milo - 98.0%  
dicalcium phosphate - 1.3%  
salt - .7%
2. Prairie hay (full feed)  
Supplement (feed 6.5 lb/head/day)  
milo - 83.0%  
soybean meal - 14.5%  
Dicalcium phosphate - 1.0%  
limestone - .8%  
salt - .7%
3. Fescue hay (>9% crude protein, full feed)  
Supplement (feed 5.0 lb/head/day)  
milo - 94.5%  
soybean meal - 4.5%  
salt - 1.0%
4. Bermuda hay (>9% crude protein, full feed)  
Supplement (feed 5.0 lb/head/day of the  
supplement shown for fescue hay.

2.0 to 2.5 lb/head/day

1. Rolled Corn - 48.5%  
Soybean meal - 12.0%  
Cottonseed hulls - 33.0%  
Molasses - 5.0%  
Dicalcium phosphate - .5%  
Limestone - .5%  
Salt - .5%  
Vit. A (30,000 IU/gm) - 1/2 lb/ton
2. Commercial preconditioning feeds: Excellent daily gains have been reported with well designed commercial rations that contain relatively high proportions of concentrates. Preconditioning gains of 2.0-2.5 lb/head/day have been common depending on the amount of feed consumed and the type of calf fed.

Any number of rations can be formulated with any number of ingredients although palatability and quick acceptance are essential. In the example rations shown in this article, corn and milo or wheat could be substituted for each other with some changes in the amounts required. Some wheat could be fed with proper precautions. Cottonseed meal could be used in the place of soybean meal if the amount were adjusted to account for the different protein levels of each. Be sure to consult your extension specialist or feed dealer who is experienced in ration formulation before changing ingredients or amounts of ingredients.

## FEED ADDITIVES

Producers who suspect that coccidiosis may be a potential problem should consult their veterinarian about preventive therapy. Amprolium can be administered through drinking water or feed and Deccox can be added to the ration or supplement. Rumensin, cleared for use in increasing feed efficiency and gain in feedlot and stocker cattle has also been shown to give some protection against coccidiosis. The decision of whether to include oral antibiotics in the feed should be made in consultation with the veterinarian.