

that the additional stress of vaccination at this time does not greatly affect the calf. To delay the vaccination for the bovine respiratory complex at this time results in an additional stress period when the calves are vaccinated. This plus the fact that some of the calves will be in the incubation stage of the disease will give variable results to the program. The calves can be put on feed and raised to the second feedlot ration. This will permit dropping back one ration upon moving to the feedlot, which will help reduce the new stress to the calf.

This is just one possible disposition of the calf by the livestock producer. Others sell their calves for grazing or feeding purposes to others. Always encourage true pre-conditioning at every opportunity. Even if a calf just knows how to eat out of a trough, it makes our handling of stocker cattle much easier. Calves properly vaccinated for the bovine respiratory complex and *Clostridium* species should be a part of any cow-calf program. The proper control of internal and external parasites and the weaning of the calf and teaching it to eat and drink should be accomplished before it ever leaves the farm or ranch. People to a large

extent are creatures of habit, so to speak. In the past, cattle were gathered and shipped and the buyer assumed all of the responsibilities mentioned above. Sickness and death losses under this program ran into the millions of dollars yearly. Now we are beginning to see a change in the marketing and handling of calves. More producers are beginning to pre-condition their calves before they sell them. It should be part of our duties as consultants to encourage these procedures and make them become a routine habit. The results will be apparent to all who work with stocker and feedlot cattle.

In conclusion let me stress these points. Work with the livestock producer. Plan your program to coincide with the normal handling of the cattle. Encourage pride of ownership and pride in delivering a superior product. Begin a simple program and add to it as it becomes necessary. Many of my programs began as pregnancy testing of the cows each fall. As conditions change, we are able to show the producer why we should go forward and add other parts to our herd health program. Above all, work with the livestock producer and tackle the problems together.

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## Improving Reproductive Performance of the Three-Year-Old Beef Heifer

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| <ol style="list-style-type: none"> <li>1. Weaning weight — 650 lb. - weaning wt. = lbs. till breeding. Lbs. till breeding ÷ days till breeding = lb. per day gain.</li> <li>2. Keep all heifers for replacements.</li> <li>3. Provide adequate numbers of tested bulls.</li> <li>4. Breed for only 20 to 30 days.</li> <li>5. Pregnancy check all heifers 45 to 60 days after breeding season is over.             <ol style="list-style-type: none"> <li>a. Tax advantage</li> <li>b. Conception rates</li> </ol> </li> </ol> | <ol style="list-style-type: none"> <li>1. Hereford 45-55%</li> <li>2. Hereford X Angus 65-70%</li> <li>3. Hereford X Angus X S.H. 75 to 80%.</li> <li>6. At least 100 lb. gain last trimester.</li> <li>7. Breed to calve 60 days earlier than cows.</li> <li>8. Calve under confinement conditions.             <ol style="list-style-type: none"> <li>a. Control nutrition</li> <li>b. Assistance at any time</li> <li>c. Cleanliness</li> <li>d. Medication</li> </ol> </li> </ol> |
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