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### G97-1313 Designing Preventive Health Management Programs for Cattle Producers

Dicky D. Griffin

*University of Nebraska - Lincoln*, [dgriffin2@unl.edu](mailto:dgriffin2@unl.edu)

Louis Perino

*West Texas A&M University*

Gary Rupp

*University of Nebraska - Lincoln*, [grupp1@unl.edu](mailto:grupp1@unl.edu)

Eddie Hamilton

*University of Nebraska - Lincoln*

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## Designing Preventive Health Management Programs for Cattle Producers

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*Dee Griffin, DVM, Extension Beef Veterinarian*  
*Louis Perino, DVM, Beef Research Veterinarian<sup>1</sup>*  
*Gary Rupp, DVM, Beef Cattle Veterinarian*  
*Eddie Hamilton, DVM, Extension Beef Veterinarian*

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The NebGuide details recommendations for a beef cattle herd immunization program.

This NebGuide presents two flow sheets which detail the recommendations for a beef cattle herd immunization program: the *Calf through Weaning Preventive Health Management Flow Sheet* and the *Heifers, Cows and Bulls Preventive Health Management Flow Sheet*. While this NebGuide emphasizes the procedures conducted on cattle at each cattle handling opportunity, it is very important to note the role a high quality nutritional program plays in building a total herd health program. You are encouraged to work with a qualified beef cattle nutritionist and your veterinarian when developing your herd health program.

### Health Management Decisions

Evaluating the economic efficiency of health management procedures can be difficult. Designing a program for a beef production unit requires an in-depth understanding of the unique circumstances that influence health and production. Misinterpreting the relationship of these circumstances causes unnecessary expenditures.

For example, closed herds (herds that do not bring in animals from outside sources without a stringent quarantine period) may get minimal benefit from a number of the vaccines offered because the animals are seldom exposed to disease causing agents and thus the vaccines are just not needed. In herds that are

maintained relatively closed, it is important that new herd additions be quarantined and their health be re-evaluated before they are added to the herd. On the other extreme, open herds which have frequent movement of animals into the herd may get minimal benefit from available vaccines. This is due to the high level of exposure to disease causing agents and the lag time between development of an adequate immune response following disease exposure. This includes many disease causing agents for which no vaccines are available. A primary consideration in these herds must include minimizing environmental, nutritional and animal handling stress. These added stresses can be important factors in animals mounting an adequate immune response. Regardless of the type of herd maintained, producers should work closely with their veterinarian to evaluate the type of herd health management program needed and work toward constant improvement in the health status of the herd.

## Health Management Flow Sheets

The herd health management flow sheets (*Figures 1 and 2*) are intended as guidelines. It is still important to seek the expertise of a veterinarian. The immunization skeleton suggests immunologically sound procedures that in most cases will assure economic efficiency, plus reduce health risk.

Throughout the *Calf through Weaning Flow Sheet (Figure 1)*, other procedures are included to meet the needs of rational health and production management. These provide the producer with alternate marketing opportunities including retained ownership.

Both flow sheets prioritize health management procedures. Highly recommended procedures are marked with an \* and procedures of questionable value are marked with a ?.

The *Calf through Weaning Flow Sheet* includes the use of a modified live viral (MLV) and bacterial vaccine in calves at branding. There are no label warnings about the use of modified live products in calves prior to bull turn out. There is some concern about MLVs delaying conception one heat cycle if used concurrently with bull turn out. Immunization of calves at this age will prime the immune system and may prevent a delayed immune response to vaccines given at weaning. Early vaccination will reduce health problems at weaning and improve the production potential for retained ownership.

The *Calf through Weaning Flow Sheet* encourages early castration and the use of implants in calves between 45 and 90 days of age. Implanting will increase weaning weights approximately five percent. Heifers may be included in the implanting schedule but should not be re-implanted if they are intended for replacements. Bulls intended for breeding should never be implanted. Heifers intended for breeding should not be implanted before 45 to 90 days of age.

## Conclusion

A sound health management program includes the proper selection and use of vaccines and a quality nutritional program. Evaluation of the production and economic efficiency of a beef production unit is a vital step in building a long-term program. Following rationally sound and properly timed vaccination programs such as those outlined in the *Calf through Weaning Flow Sheet* and the *Heifers, Cows and Bulls Flow Sheet* is important. Vaccination programs should be incorporated with other herd management procedures when possible to optimize marketing management.

**Figure 1. Calf through Weaning Preventive Health Management Flow Sheet for Birth through Growing Phase**

(This flow sheet is a starting point but visit with your veterinarian before making final decisions.)

NOTE: **The principle objective of this flow sheet is for each calf to get a priming *Modified Live Virus* vaccine prior to the weaning!** Other management activities are included for you and your veterinarian's consideration.

NOTE: Items with an \* are highly recommended procedures and items with a ? have questionable value.

<b><i>Calf at Birth:</i></b>	
<b>Dehorn*, Castrate*, Iodine Navel, ID tag.* If dystocia, milk dam &amp; give calf 1 pint colostrum/20 lbs of calf weight.*</b>	
<b><i>Calf Prior To Breeding Cow:</i></b>	
Vaccinate, dehorn and castrate all calves.* Implant with a product designed for calves.* Follow the implant manufacturer's directions. Never implant bull calves intended for breeding	
<b>Vaccines to consider:</b>	<b>4 way MLV IBR, BVD, PI3, BRSV* 2 way modern pasteurella* 4/7 way Clostridial 2ml modern product* 5 way Lepto?</b>
<b><i>Calf Pre-Weaning (2 to 4 weeks):</i></b>	
Pre-weaning vaccination may not be as important if calves were vaccinated at the pre-breeding opportunity or if calves will be backgrounded on premises. Weigh calves individually.	
<b>Vaccines to consider:</b>	<b>IBR, BVD, PI3, BRSV* (select one safe for use around pregnant cows) 4/7 Clostridial 2 ml product (include tetanus if banding) 5 way Lepto? 2 way modern pasteurella* Implant (important if calves will be backgrounded on premises)</b>
<b><i>Calf at Weaning:</i></b>	
Weigh all calves individually only if calves will be going through a chute for other management objectives.	

**Background on premise:**

No vaccines required if two MLV virus and 2-way modern pasteurella pre-weaning vaccines given or unless mixed with other non-vaccinated calves. No implant needed and can deworm in feed if implanted pre-weaning. Consider revaccinating with modified live IBR, BVD, PI3, BRSV.

**Feedlot:**

MLV: IBR\*, BVD\*, PI3\*, BRSV\* (Clostridial?, Lepto?, H. somus?, Past H/M? vaccines of doubtful benefit at this time), High Quality Dewormer Implant (back calculate from packer) (If implanted at pre-weaning, delay first implant 45-60 days.)

(Replacement Heifers only: Using Brucellosis 1-2 months post weaning will lower combined stresses.)

**Figure 2. Heifers, Cows & Bulls Preventive Health Management Flow Sheet for the Cow Herd when Replacements are Promoted from Growing Program to the Herd**

(Visit with your veterinarian before making final decisions about your herd.)

Note: Items with an \* are highly recommended procedures. Items with a ? are of questionable value.

Heifers/Cows	Bulls
<p><b>Before entering the herd</b> (3 to 4 weeks pre-breeding) MLV: IBR*, BVD*, PI3? 5 way Lepto+Vibrio-oil* 4/7/8 way Clostridium*</p> <p><b>Pre-breeding/Post-calving</b> (best 3 to 4 week pre-breeding) MLV: IBR, BVD, PI3? (every 3-5 years) 5 way Lepto+Vibrio-oil booster* Deworm (fall calving) as needed</p> <p><b>Post-breeding</b> Preg exam* Scour vaccine as needed (heifers need priming dose) Deworm (spring calving) as needed</p> <p>5 way Lepto booster Grub control Lice control as needed</p> <p><b>Moved to Calving Pastures</b> (3 to 7 weeks pre-calving) Scour vaccine booster 4/7/8 way Clostridium? Vitamin A-D? (spring) (best to feed vitamin fortified supplement) Lice control as needed</p> <p><b>Cull Check withdrawals*</b></p>	<p><b>End of Growing Period</b> MLV: IBR*, BVD*, PI3? 5 way Lepto? 4/7/8 way Clostridium*</p> <p><b>Pre-breeding</b> (best 3 to 4 week pre-breeding) MLV: IBR, BVD, PI3? (3-5 years) 5 way Lepto+Vibrio-oil 4/7/8 way Clostridium* Deworm? + Lice control as needed Breeding Soundness Exam*</p> <p><b>Cull Check withdrawals*</b></p> <div data-bbox="836 934 1372 1260" style="text-align: center;"> </div> <p><b>Never inject the rear leg</b> <b>Avoid IM injections</b> <b>Select sub-Q products</b> <b>Never change dose without your Vets O.K.</b> <b>Follow withdrawal times</b></p>

<sup>1</sup>Louis J. Perino, DVM, PhD, Beef Research Veterinarian, West Texas A&M University, Canyon, Texas.

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