

money for a dairyman until the third month of the third lactation. When amortizing all the expense of raising the cow from a calf under the old way, she would be 57 months before she showed a dollar return.

Under the early calving concept, 47 months. This could amount to quite a sum over a few year's time.

All this takes concerted effort by the dairyman and you, the veterinarian.

But, raising that calf right, along with early breeding, is a topic to employ.

Another topic of concern is the feeding practice commonly employed today. We as practicing veterinarians have become aware of the abomasal displacement, the stomach ulcers, the fatty cow syndrome, the drop in butterfat test; all are possibly related to feeding practices, feed storage, feed preparation, and feed content by our dairymen. We must alter or correct these ways he has employed. Only yesterday hay, dry hay, long stem hay, was given as the answer to these maladies. In my practice area, we are finding it hard to locate available hay. It is not prepared in the quantity as it once was. Possibly it will take premixes, or a new method of feeding.

May I only mention the topic of laminitis in dairy cattle. This is a major problem today. With the increased grain feeding, the method of housing and confinement, founder in new heifers is a

serious problem. After being on a soft manure pack in pasture, they are locked in a stanchion, put on cement, and are given an increased grain diet. Many develop sore feet; a typical laminitis with extensive hoof growth, deterioration of the protein in the hoof, and a tilting of the third phalanx. Abscesses develop. This is a major problem today.

I must close. I have only brushed the surface of the challenge confronting the modern dairy practitioner in program work. I know I have created more work for myself, not less, and this work is definitely more satisfying. I am really ready for bed each evening.

Reminds me of the story of the two lions at the bar drinking double shots. After a couple of drinks, a beautiful, "curvacious" barmaid came in and sat down at the other end of the bar.

One lion said to the other, "I could go down there and eat her." After one more shot, he did go down there and ate her. Soon he remarked to the other lion that he was getting sleepy.

The other lion immediately replied, "Oh! That was that bar bitch you ate."

I hope I haven't done the same to you. I do hope we of the AABP have stimulated you in some manner the last few days in this continuing education program to make you more valuable to our profession, to your clients, to society, and finally to your family.

Thank you for your attention.

Cow Calf Industry

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The topic of this paper should probably be titled "The Cow Calf Industry, The Most Inefficient Food Animal Production Unit Known to Man."

Who is to blame? Environmental conditions? Ranch managers? Governmental agencies? Lack of research? Our veterinary colleges? Feed and drug salesmen? The ranchers themselves? Loopholes in our income tax structure? Our own veterinary code of ethics? Various cattlemen's associations?

Anyone or all of the above can be looked upon as obstacles, or as challenges to be overcome by the aggressive practitioner who is willing to realize his obligation, not only to his client, but to feeding the ever-increasing population of the world. The

veterinary food animal specialist must learn how to use the above mentioned obstacles to his advantage rather than blame them for his shortcomings. While there is a definite increase in the interest of so-called herd health programming in the beef cattle industry—I have yet to find anything published which deals with a comprehensive study aimed at long-range programming of management, range conditions, nutritional requirements, reproduction, disease control, animal identification and selection, physical layout and last, but definitely not least, marketing.

The beef cattle industry has the tastiest, most nutritious, and most desired food animal product

on the market today; yet we remain the most inefficient producer and the poorest promoter of our product. Therein lies the challenge and the responsibility of the veterinary specialist in tomorrow's cow-calf industry. So, where do we begin?

1. I do not believe that a veterinarian has the knowledge or exposure to establish himself as a consultant in the cow-calf industry until he has experienced at least ten years of general large animal practice.
2. The consultant must realize that he is a specialist in a relatively new field, which will require many more hours of research and study into virtually every science and art that deals with the ranching industry.
3. It is impossible to be part-time practitioner and part-time consultant. However, being associated with an active practice has many advantages from the standpoint of continuing education and consultation.
4. Limit the number of clients to be served. Select these clients carefully and educate them thoroughly prior to beginning any program. Discuss conditions and problems that can be reduced or eliminated through programmed management. Inclosure No. 1.
5. Conduct a detailed preliminary study. This may take several weeks, but don't overlook any details, no matter how insignificant they may seem. Inclosure No. 2.
6. Begin consulting with personnel from related fields concerning prior problems and future programs. Inclosure No. 3.
7. Conduct necessary tests to determine status of disease, nutrition and pollution. Inclosure No. 4.
8. Establish goals based on preliminary study, related consultants recommendations, diagnostic test results, tax advantages and market situation. Be careful not to set goals too high—graduate goals over several years.
9. Make logical recommendations based on experience, common sense and the client's ability to adjust. These recommendations must be sound—this is no time to experiment.
10. Any successful business depends on periodic audits. Periodic reports to your client not only enables him to audit your progress, but are essential in order to insure that you are progressing toward your ultimate goals.

There is no doubt that the time for the consulting food animal specialist in the cow-calf industry has arrived. There is no doubt that the position will be filled. The question is: will it be filled by the independent practicing veterinarian or

by drug company veterinarians, feed company vets, a commercial consulting firm, or federally subsidized extension service personnel?

There are many outstanding veterinarians who have pioneered herd health programming in the swine, feedlot and dairy industries. The cow-calf industry is demanding in-depth programming to help them cope with today's competitive agricultural economy. This need involves more than veterinary medicine—it encompasses *all* phases of the ranching industry. The experienced practicing veterinarian is best qualified to fill the position of consultant and coordinator if he is ready to accept the challenge.

Inclosure No. 1
Readily Controlled Diseases and
Disease Condition

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|---|---|
| <ol style="list-style-type: none"> 1. Foot Rot 2. Lumpy Jaw 3. Woody Tongue 4. Naval Ill 5. Grass Tetany 6. Ketosis 7. Milk Fever 8. Downer Cow Syndrome 9. Vibriosis 10. Vibriosis 11. Brucellosis 12. Leptospirosis 13. I.B.R. 14. Mastitis 15. Metritis 16. Pyometra 17. Retained Placenta 18. Dystocia 19. Prolapse Cervix, Vagina and Uterus 20. Cystic Ovaries 21. Other reproductive disorders 22. Blackleg—Mal. Edema 23. Other Clostridial Diseases 24. Pink Eye 25. Udder Edema 26. Bloat | <ol style="list-style-type: none"> 27. Cancer Eye 28. Founder 29. Abscesses 30. Ringworm 31. Coccidiosis 32. Calf Scours 33. Hardward Disease 34. Vitamin A Deficiency 35. Nitrate poisoning 36. Prussic Acid Poisoning 37. Phosphorus Deficiency 38. Fescue Poisoning 39. Sweet Clover Poisoning 40. Grubs 41. Internal Parasites 42. External Parasites 43. Lungworms 44. Insecticide and Herbicide Poisoning 45. Allergic Reactions 46. Pollution Related Conditions 47. Poisoning by Chemical Agents 48. Acute Pulmonary Emphysema 49. Ergotism 50. Mycotic Pneumonia 51. Hyperkeratosis 52. Urea Poisoning |
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Inclosure No. 2
Preliminary Study

Note: An aerial photo and soil conservation map are essential prior to beginning this study.

General

1. Total acres in ranch.
2. Total number of pastures.
3. Total livestock inventory.
 - a. cows over two years old
 - b. replacement heifers
 - c. bulls
 - d. steers and market heifers
 - e. nursing calves
4. Current bull-cow ratio.
5. Current breeding program (type cross, etc.)
6. Duration of breeding season.
7. Avg. conception rate (1971, 1972 & 1973)
8. Current culling program.

9. Bull selection technique.
10. Acres required per cow unit.
11. Method of marketing calves.
12. Average sale weight of calf crop (1971, 1972, 1973)
13. Approx. age of calf crop at time of sale (1971, 1972, 1973)
14. Timing of calf sales vs. market trends.
15. Individual animal identification system.
16. Average annual rainfall.
17. Seasonal distribution of rainfall (winter, spring, summer, fall).
18. Costs of veterinary services (1971, 1972, 1973).
19. Cost of veterinary supplies and drugs (1971, 1972, 1973).
20. Employer-employee relations.
21. Average number of employees.
22. Competence of ranch manager.
23. Competence of hired hands.
24. Layout and condition of pens and working facilities.
25. General overall sanitation.

Range Management and Nutrition

1. Current supplemental feeding program.
 - a. mature cows
 - b. bulls
 - c. replacement heifers
 - d. avg. annual costs (1971, 1972, 1973).
2. Age and weight of replacement heifers at breeding.
3. Mineral feeding program.
 - a. annual costs (1971, 1972, 1973)
 - b. type and analysis
 - c. method of distribution
4. Home-grown feedstuffs
 - a. acres of each
 - b. tons produced and value
 - c. methods of harvest and storage
 - d. tons sold and value
 - e. analysis of prior crops.
5. Pasture fertilization programs and costs.
6. Pasture rotation and deferment programs.
7. Other soil and water conservation practices.
8. Tillable acreage.
9. Acres of improved pasture.
10. Acres of improved winter pasture.
11. Predominant grasses and shrubs and their nutritional value.
12. Percent toxic and undesirable plants in each pasture.
13. Soil and water pollution problems.
14. Average seasonal soil temperature.
15. Type, location and accessibility of watering facilities.
16. Distribution of salt blocks, mineral feeders, back rubbers, etc.
17. Wildlife population and potential.
18. High intensity-low frequency grazing possibilities.

Veterinary Programs

Comment on each item in detail as to method used, dates, by whom services are performed, etc.

1. Pregnancy diagnosis.
2. Fertility examination.
3. Internal parasite control.

4. External parasite control.
5. Recurrent disease conditions.
6. Recurrent disease problems.
7. Calf vaccination program.
8. Breeding herd vaccination program.
9. Breeding program.
10. Routine castrating, dehorning, hoof trimming, etc.
11. Backgrounding or preconditioning program.

Inclosure No. 3

Related Members of the Consulting Team

1. Your client.
2. Ranch manager.
3. Ranch accountant.
4. A good nutritional consultant.
5. Diagnostic laboratory.
6. Soil testing laboratory.
7. State extension service specialists.
8. Soil conservation service personnel.
9. Game biologist and wildlife specialist.
10. County agent.
11. A competent hydrologist.
12. Range management specialists.
13. Selected feed and drug companies.
14. Livestock marketing personnel.
15. Commercial fertilizer companies.
16. A.S.C.S. personnel.
17. U.S. coastal and geodetic survey office.
18. State Water Quality Control Board.
19. Agricultural and veterinary colleges.
20. All related journals and publications.
21. Other veterinarians.

Inclosure No. 4

Analysis, Tests and Procedure to Consider

1. Pregnancy examination.
2. Fertility examination.
3. Vibriosis.
4. Leptospirosis.
5. Brucellosis.
6. Anaplasmosis
7. I.B.R.
8. Blood chemistry.
9. Fecal examinations.
10. Bacterial cultures.
11. Toxicology.
12. Feed analysis.
13. Grass analysis.
14. Soil analysis.
15. Water analysis.
16. Hair analysis.
17. Toxic plant population.
18. Soil temperature.
19. Urinalysis.
20. Rumen contents and pH