

## Application of Dairy Production Medicine in Practice

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Definition: To assist management to develop, implement, evaluate and modify programs to maintain health and optimize production of the dairy unit.

Production Medicine = Host - Parasite Relationship

Basic conflicts: A balancing act between work, home/family, faith, hobbies/interest/recreation.

### OBJECTIVES OF DAIRY PRODUCTION MEDICINE FOR THE DAIRYMAN:

- Economics - maximize return over costs, profitability.
- Prevention - identify potential problem areas (subclinical) to prevent them from becoming problem areas (clinical).
- Goal Setting - SMART goals (Specific, Measurable, Attainable, Relevant, Trackable).
- Evaluation - Is the dairy moving toward its goals? Is it time to re-set goals? Develop protocols for tracking progress.

### OBJECTIVES OF DAIRY PRODUCTION MEDICINE FOR THE VETERINARIAN:

- Job Security - Reasonable income from reasonable amount of time invested. Goals will always need to be re-set and progress monitored.
- Challenging Work - No dairy is perfect and all dairymen are independent by nature - developing, monitoring, and fine tuning goals for the individual dairy is a constant challenge.
  - Opportunity to sell your mind as well as your body.
- Emotional Rewards - Close working relationship with the dairy - mutual trust. Join the management team of the dairy as an asset rather than delivering services as a liability.

### APPLICATION OF PRODUCTION MEDICINE TECHNIQUES:

Tools required:

- Open eyes
- Listening ears
- Inquisitive mind
- Ambition to search for answers
- Honest, straightforward personality
- Communication skills
- Information Management Systems - computer, hand forms.
- Communication equipment - phone, fax, modem, mail.
- Resources: People, experts to give guidance and new information.
  - Data - references - books, periodicals, computer search.

### PRODUCTION MEDICINE TOUCHES ALL AREAS OF THE DAIRY:

Production Medicine (knowledge x attitude x communication)

- Reproductive Programs
- Vaccination Programs
- Parasite Control
- Milk Quality Management
- Herd Record Analysis/Management
- Nutritional Management

- Replacement Rearing
- Environmental Management
- Genetic Management
- Economics
- Systems Analysis - Interaction
- Human Relations - "80% of what is accomplished is due to motivating people; 20% due to technical skills".

#### APPLICATION OF PRODUCTION MEDICINE TECHNIQUES:

Production medicine begins with setting one's mind on prevention rather than cure. To begin to look at the causes rather than the problem. To ask, and listen, why these causes are present and what can be done to change them. To explore the cost/benefit ratio to change the causes. To make a plan for change. To monitor the response to the changes.

Every veterinarian in dairy practice is doing some form of production medicine. The question is how do I or you expand production medicine services?

Begin communicating with the dairies you are now working. When doing rectal exams use forms to keep track of what you are doing. Write it down! Look at the cows while doing rectals. Consider body condition, udder quality, feet and legs, etc. Most dairymen will be excited that you are interested.

Review the records with the dairyman. Hand records kept by you or the dairy, and testing service records. Here is an opportunity to set goals to fine-tune the dairy. Be sure the goals are measurable and attainable. Then some form of flow sheet needs to be used to monitor progress, and you are on your way.

Below are some methods we use at Kulshan Veterinary Hospital to practice production medicine:

- Reproductive Programs: We use a variety of hand forms to keep track of results of rectal examinations as well as freshening problems and body condition.
- Vaccination Programs: Programs are written out for the client and a copy placed in the clients' file. These should be reviewed annually.
- Parasite control Programs: Again use written programs. Routine fecal exams are the barometer. In our area coccidiosis is a big problem, and we use decoquinate almost routinely.
- Milk Quality Management: The milk processor in our area tests for antibiotics and somatic cells on each pickup. We recommend and run periodic bulk tank analyses. We are fortunate to have well-qualified dairy service to aid in trouble-shooting equipment problems. We have also used support service from WSU as a back-up in equipment trouble-shooting.
- Herd Record Analysis/management: We use both hand records and computer records depending upon the dairy. Hand records are used to monitor freshenings, reproductive treatments, feed deliveries, and some summary forms. We have adopted the Herd Monitor program. Generally our technician enters the data. Data is reviewed with the dairy monthly, but graphing and detailed review is done quarterly.
- Nutritional Management: We have adopted using a nutrition service to work hand in hand with the veterinarian. We have worked with ANI, Animal Nutrition Inc., which gives us back-up, formulation, and an overall perspective of the nutritional environment. On the dairy we stress feed bunk management, delivering the right

feed to the right cows - feeding by body condition, and maximizing dry matter intake. To do this we track feed fed, feed discarded, feed moistures. Our goal is to maximize income over feed costs which we use a lotus program to calculate monthly. We have had pleasant responses by delivering plate cooler water to the water trough believing we have increased dry matter intake.

- Replacement Rearing: Raising heifers ties into parasite control, vaccination programs, reproductive programs, and genetic advancement. We work the hardest on getting the newborn off to a good start, monitoring early growth weights, monitoring developing heifer body condition, monitoring stature and condition at calving, and following first calf peak production.
- Environmental Management: Reduced to Jim Jarrett's famous Clean, Dry, Comfortable. Poorly maintained concrete, poor ventilation, poorly maintained stalls are our most common problems. We were involved with our area's first fabric siding barn. The owner reports that the metal will stay off the walls!
- Genetic Management: To monitor improvement we focus on dollar value, mature equivalents, and peak production.

The best challenge is to tie all these facets together into an individual system that fits a given dairy, to communicate well enough for management and labor to carry out the plan, to enjoy the accomplished goals while working through the missed ones.

Starting anything new involves risks. Production medicine rewards are worth the risks.