

# Twenty Years of Experience with Dairy Herd Health in Ontario

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At the outset I feel that I should alter the title to include emergency veterinary service so that in fact we are talking about a comprehensive veterinary service. It is difficult to assess the effect of the emergency service which you provide to your clients. When starting a herd health program the client will be more receptive to your advice and procedures, if you have previously proven yourself as a capable diagnostician obstetrician, surgeon, etc. Also, in spite of your best efforts at maintenance of health there are breakdowns and unavoidable emergencies. And as the client becomes more knowledgeable and health-conscious he becomes less tolerant of health problems and more demanding of your emergency service.

In 1960 we enrolled six of our dairy herds in our herd health program. These six owners were progressive dairymen, active in the community and breed organizations. They in turn acted as salesmen and examples for the dairymen who asked to join the herd health program in succeeding years. Satisfied clients are the best promoters of the program. We presently have 40 participating herds. During the 20 year period we have had 70 different herds enrolled. The main reason for herds leaving the program has been because of herd dispersal and the second is that neighboring practitioners have taken over some herds which were closer to them. Start with the best operators and they will sell the program to the rest.

Since 1963 we have required signed agreements with our owners. Even though they are not legal documents, these contracts have helped to reduce misunderstandings, and misunderstandings are the reason court actions occur. So, from a legal standpoint a contract is good preventive medicine. The agreement should outline the responsibilities of the veterinarian and the owner, including the fee and the method of termination. About ninety percent of our herds have elected to pay for the herd health program on a per head per year basis (presently \$12.50 per head) as opposed to the hourly rate of \$35.00 per hour. However, the hourly rate seems to appeal more to owners and practitioners who are involved in private practice as opposed to a teaching practice. The flat rate fee does not cover emergency service

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or drugs and supplies. The hourly rate charge should result in more efficient use of your time and the owner's time.

The flat rate or hourly fee schedule is preferable to a piece work fee, because they allow the veterinarian to be paid for his time, when he is giving advice or analyzing feeding programs, etc. on behalf of a client's herd. Sometimes a recommendation made at the time of a herd health visit will be more profitable to the owner than all the procedures carried out that day. However, the necessity for routine examinations, particularly of the reproductive tract at monthly intervals gives the owner and the veterinarian an opportunity to talk and discuss important matters which might not surface if the herd was strictly on an emergency service. Sometimes owners are unreceptive to our advice and persistence, persuasion, and patience are needed by the veterinarian. Some owners only learn from experience, often the hard way.

**Education of the client is an essential part of a herd health program. As a client becomes more knowledgeable he does a better job of health management and at the same time he becomes more understanding of the problems of the veterinarian and is a more co-operative person to deal with. In our practice we have had periodic educational meetings with our herd health clients since 1962. We have covered all aspects of dairy cattle health including nutrition during that time. At present we are updating our clients' information with repeat lectures on neonatal disease, reproductive problems, etc. We also co-operate with the breed associations, breeding units, Ministry of Agriculture, and milk producer groups, by participating in continuing education programs which they offer their members. Practitioners engaged in herd health work must also keep updated.**

Good communication with clients is important. They like to know the results of laboratory tests and other information as quickly as possible, and this in turn encourages them to contact us for information and advice. The veterinarian should be the liaison or health coordinator for each herd on the program. It is his responsibility to identify etiological factors and to help the owner to contact the proper specialist to correct the situation whether it be a dairy extension specialist, agricultural engineer, milking machine service man or whichever professional is needed. Tact and courtesy are needed in this area because it is an opportunity for bad public relations between veterinarians and other specialists.

We hear and read about "the total management concept" as though the veterinarian should be the person in charge, but in the final analysis the herd owner is the one who must make the final decisions. He is the one who has to select the inputs and services which can best help his operation. The veterinarian however should have an influence on the decisions.

**Table I. Average Yearly Values Of Production, Open Interval In 20 ROP - H.H.P. Herds (2921 Holstein Lactations).**

	1970	1971	1972	1973	1974
Open Interval (Days)	143	132	148	146	107
BCM	130	134	132	126	128
BCF	133	135	134	130	133
Average Days Dry				77	
Average Days In Milk				343	
Average Age At Calving				4.6 Years	
R.O.P.				Record Of Performance	
H.H.P.				Herd Health Plan	
BCM				Breed Class Average Milk	
BCF				Breed Class Average Fat	
R.O.P.				Herd Health Plan	

**H. Erb**

**Table II. Production Levels, Open Interval And Quarter Infection Rate In One Herd Before And After The Herd Health Plan.**

Herd #6	BCM	BCF	Open Interval	# Of Cows	Q.I.R.
1971	124	127	161	24	39%
1972	148	147	137	30	25%
1973	150	151	114	36	25%
1974			143	19	16%
1976	148		161	34	
1977	149		135	34	
1978	148	154	146	50	20%

**W. Martin**

**Table III. The Effect Of Disease On Days Open And Production Parameters In Five Herds.**

# Of Cows	Disease	Days Open		BCM	
		Average D.O.* In Five Herds	Variation From The Control Cows	Average BCM In Five Herds	Variation From The Control Cows
117	Control (No Disease)	117		145	
5	Left Displaced Abomasum)	195	+76	163	+18
6	Retained Placenta	149	+32	142	-3
24	Metritis	160	+43	146	+1
27	Cystic Ovaries	187	+70	152	+7
11	Mastitis	124	+7	148	+3
14	Ketosis	153	+36	152	+7
26	Milk Fever	131	+14	139	-6

**W. Martin**

We have all heard the expression "no foot, no horse" and I feel that we could say "no reproductive work, no herd health program". The reproductive tract of the dairy cow needs regular examination and this is the reason for being on the farm at least once a month. By this opportunity and necessity for regular visits, we are then in a position to monitor the mastitis control, feeding program and calf survival at the same time. Most health problems are a result of ignorance or carelessness. So, by our frequent presence on the farms and by becoming more familiar with their operation, we are better able to advise and remind owners.

The veterinarian's most valuable asset in reproductive work is his palpating arm and hand. We can honestly call it "The Golden Arm" because we base most of our judgments and conclusions on the findings which we palpate rectally. Rectal examination is not the most inviting work in the world and it can become tiring, but is challenging because a decision or diagnosis has to be made as a result of each examination. Perhaps it is the many challenging decisions which keep many veterinarians from becoming bored with this routine procedure. It is also important that palpations should not be done with the same hand that you write, inseminate or infuse with for obvious reasons. I cannot overemphasize the use of a good vaginoscope and also the importance of a normal cervix in the diagnosis of repeat breeders.

Strict routine is a very important aspect of herd health, especially on the part of the owner. Many problems occur when there is a departure from routine, whether it's a change of personnel because the owner is away or a practice like teat dipping is discontinued for any reason. The veterinarian must also be faithful about the monthly visits if the herd is to derive maximum benefit from the various examinations. Our work load has been better organized and distributed over the year because of herd health. We have fewer peaks and valleys in our volume of calls because routine procedures are kept up to date each month in so many herds. I feel that one veterinarian in a group practice can handle 20 herds of 40-60 cows in addition to emergency calls and have a busy but regulated work schedule. He should plan for about 3 hours work/herd/month.

**Record keeping is an essential part of herd health practice. Records can be as simple or as complicated as you choose to make them. In our practice we have a simple record card designed to retain the necessary facts without becoming a full time job for the owner who is also responsible for all the other farm chores. The herd health books have become a vital source of information for the owner and veterinarian. They are also a means of communication for members of our practice because we often don't have time to consult on cases which have to be revisited by someone other than the original clinician on the case. A record system which allows quick retrieval of information would be ideal for purposes of evaluating the program. In 1973 we placed a few herds on a computerized record system using daily dairy entries a la Blood and Morris. A summary sheet for each herd visit should also be kept in duplicate so that the farmer can keep a copy of pregnant and open cows normal and treated cows and when to expect them in heat.**

When we started the preventive medicine program in 1960 it was anticipated that much of our emphasis would be on immunization for contagious diseases, because that's where the emphasis seemed to be in human medicine. In actual fact brucellosis vaccination was the only routine vaccination which was incorporated in the program. At present we only vaccinate as required after consultation with the owner. The decision to vaccinate especially for viral diseases is an important one and should not be taken lightly.

The barn dispensary is an important part of the program and the veterinarian should be in charge of the drugs used on each farm. It has been our experience that herd health clients want advice and guidance on this matter and rely on the veterinarian to keep the farm supplied with the appropriate products. Telephone advice is made easier when both parties know which drugs are available.

Lindsay Barfoot published an economic appraisal of our herd health program in the Canadian Veterinary Journal, Volume 12, Number 1, January 1971. He noted that there were four response levels to our program even though the same procedures were available to all participants. As the response level or health management increased so did the investment per cow in health services. There was also a stepwise improvement in open interval, calf mortality, cow mortality, culling rate for health reasons, milk production and return on investment. There is a 300-500% return on investment possible if owners participate at an average or above average level.

More recently statistical surveys have been made by H. Erb and W. Martin using health records from participating herds.

Table I summarizes the average open interval and production records for 20 herds over a five year period. There is a fluctuation of days open with a dramatic decrease for 1974. Meanwhile average production levels changed very little during the same period.

Table II shows figures for a dairy herd which started on the herd health plan in 1972. During the next six years the open interval and quarter infection rate have decreased gradually while the number of cows and production levels have increased drastically.

Table III shows the effect of disease on days open and production parameters in five high producing herds (Breed Class Average for Milk 145). As expected an increased open interval ranging from seven days to 76 days was experienced depending on the disease. It was also the higher producing cows in the herd which experienced problems with the exception of milk fever and retained placenta.

**In summary herd health practice has been a very satisfying aspect of veterinary medicine and a profitable and valued service for our clients. Maintenance of health involves the application of all the veterinary knowledge and procedures which you have to offer.**

# Let's Get Acquainted

## The Germania Philosophy:

- Equipment designed to promote udder health.
- Clean, reliable, all-air operation.
- Extremely stable vacuum.
- Simple, rugged equipment.
- Guaranteed updateability.
- No built in obsolescence.
- The latest in dairy automation and technology.

## Equipment Designed Specifically for Parlors

Germania specializes in equipment strictly for milking parlors. It's where we can help improve udder health the most. It's where we can accomplish more for cows and dairymen. It's also where dairymen can realize tremendous savings in time and labor. Dairymen's efficiency can be greatly improved in the parlor.

## All Air Operation

We are the only manufacturer of all-air operated equipment. You know transient voltage can cause real problems — slow milk-out, no let down and mastitis. The only way to avoid it is to eliminate electronics from the milking parlor. Germania uses only clean, filtered compressed air to operate all equipment.

## Stable Vacuum

The vacuum system should only be used for taking the milk away from the cow. You know that equipment which interferes with the milking vacuum runs the risk of causing vacuum fluctuations, another prime source of udder health problems.

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There is no "built in obsolescence" at Germania. Our original automatic take-offs, installed in 1974, are still milking on the John Bos Dairy in California (20

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## Guaranteed Updateable

All Germania equipment is GUARANTEED UPDATEABLE. All our new systems and components can be added to all Germania equipment, including the 1974 models. No need to buy new take-offs to add automatic backflushing. No need to buy new take-offs to add automatic stimulation or milk metering. All these and more can be added to any existing Germania take-offs.

## Simple, Self-service Equipment

All Germania equipment is designed to be rugged, reliable and self-servicing. Most customers do their own repairs, if any are necessary. However, we are establishing a national service network. Direct distribution and service are now available in the majority of the West Coast states, upper Mid-West, and Mid-Eastern United States.

## Automatic Animal Identification

We are now beginning our "second stage" automation — Automatic Animal Identification. Now that cows can be reliably identified, we can do many management functions—automatically. Our engineers are working on automatic milk metering, pregnancy testing, temperature recording and many other time consuming, labor intensive tasks. But so important to good herd management.

Right now, Germania's Cattle Code incorporates automatic identification with automatic individual feeding. Each cow wears a collar which is automatically read by a computer. Once the collar is around the cow's neck, she never needs to be caught again. All changes in ration allotment are made at the computer, by just merely pushing a few buttons.

## Cattle Code Monitors Herd Health

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