

## HERD HEALTH PRACTICE

J. F. Cote\*

THE PURPOSE OF THIS PAPER is to report progress and to make a start at evaluating herd health management as practised in our Farm Service Clinic. The average calving interval and the annual veterinary costs for six herds, which have been on our program for at least two years are the yardsticks used. The number of cows removed from each herd and the reason for their departure are included.

The program consists basically of a monthly visit to each herd at which time the following procedures are carried out:

1. Cows and heifers that were bred six weeks previously are examined for pregnancy.

2. Cows that freshened 30 days previously are examined rectally (also vaginally using a speculum if this is deemed necessary) for abnormalities of the reproductive system. Pathological conditions are treated as indicated.

3. Cows that have been milking for 90 days and have not shown estrus are examined and treated if necessary.

4. Cows bred three or more times without conceiving are examined and treated or re-examined at the next heat period.

5. Monthly California Mastitis Tests are conducted on composite samples from each cow and individual quarter samples from dry cows are cultured and treated.

6. Brucella vaccination, dehorning and removal of extra teats are performed on heifer calves.

7. Rations are discussed, evaluated, and if necessary, suggestions are made regarding their adjustment.

8. Individual Record cards are maintained on each cow in the herd with the co-operation of the herd owner.

Pinebush P.R.	
Name: Bonnie	Ear Tag: 64263II Birth Date: Jan. 24/54
Calving Date: Aug. 12, 1960.	Calf: male
Breeding Dates: (heat) Oct. 16/60 Nov. 7/60 Nov. 28/60	
Pregnancy Diagnosis Jan. 16/61	o.k. Due: Oct. 21/61
Date	Post-Partum: C 1 1/2 x Normal U. Rt. horn doughy
Sept. 17/60	regressing corpus Right Treat. infusion Pen Strep
Dec. 15/60	Lame L. Hind Fistulous tract at coronet lateral digit. T. 103 Penn Strep & Bandage applied.
Dec. 15-30/60	Lateral digit increasingly inflamed and swollen - quite lame - Antibiotic and enzyme therapy.
Jan. 2/61	Digit removed surgically - Good response.
Sept. 10	
Sept. 11/61	Mastitis: R.F. Negative R.H. Haem. Staph } Furacin Culture: L.F. L.H. Haem. Staph }
lbs. milk 12,800	lbs. fat 484 B.C.A. 118
Calving Date: Oct. 25/61	Calf: female
Breeding Dates: Dec. 1/61 (heat) Dec. 22/61 Jan. 12/62	
Pregnancy Diagnosis March 15/62	o.k. Due: Oct. 20/62
Date	Post-Partum: C normal U. normal
Dec. 18/61	O. small follicle (right) Treat.:
Nov. 15/61	Ketosis ++ production down 10 lb. Trisucrol I.V. Ketol orally.
Aug. 25/62	
Aug. 15/62	Mastitis: R.F. Negative R.H. Haem. Staph } Furacin Culture: L.F. Negative L.H. Strep. non ag }
lbs. milk 14,500	lbs. fat 610 B.C.A. 150

FIGURE 1.

A reproduction of a record card is shown in Figure 1.

The program was started in August, 1960, in two herds, and is now being conducted in 20 herds.

\*Department of Medicine and Surgery, Ontario Veterinary College, Guelph, Ontario.

FEEs

Previous to July 1, 1962, the fee on a trial basis was \$10 per visit. Since July 1, 1962, the charge has been \$5 per milk cow per year. A separate charge is made for all drugs used or dispensed and all emergency work, e.g. dystocia, milk fever, ketosis, retained placenta. The \$5 per head charge was adopted from practitioners who felt it to be a fair fee for a similar program in their practice (1).

RESULTS

Table I compares the calving intervals for 1961 (the first year on the program) and 1962 in six herds. The reasons for disposal of cows from the herds are shown in Table II. The total veterinary costs for 1960, 1961, and 1962 are compared in Table III. The herd health portion of each account is listed.

TABLE I  
CALVING INTERVALS OF HERDS ON HERD HEALTH PROGRAM

Herd No.	1961		1962		Earnings due to Reducing Calving Interval
	Cows	Average Calving Interval	Cows	Average Calving Interval	
1	26	14 mo.	27	13.18 mo.	\$882.40
2	19	13.3 mo.	29	14 mo.	—
3	35	14.5 mo.	38	13.2 mo.	\$1,976.00
4	30	15.35 mo.	26	13.33 mo.	\$2,230.00
5	22	14.32 mo.	50	13.41 mo.	\$1,755.00
6	12	13.66 mo.	32	13.5 mo.	\$249.60

TABLE II  
REASONS FOR DISPOSAL OF COWS ON HERD HEALTH PROGRAM

Herd	1961	1962		
1. Conventional Barn—	A.I.			
Sold for breeding purpose:	5	.....5		
Sold for slaughter:	6 (Endometritis	—2.....4	(Endometritis	—2
	(Salpingitis	—1	(Poor production	—1
	(Poor production	—2	(Cervicitis	—1
	(Brucellosis reactor	—1		
Died:	1 (Bloat	.....1	(Pelvic hematoma	
			and old age (13	
			yrs.)	
2. Conventional Barn—	A.I.			
Sold for breeding purpose:	0			
Sold for slaughter:	5 (Old age	—1.....4	(Infertility	—4
	(Mastitis and			
	Infertility	—2		
	(Poor production	—1		
	(Brucellosis reactor	—1		
Died:	1 (Salmonella			
3. Conventional Barn—A.I. and Natural Service				
Sold for breeding purpose:	8	.....5		
Sold for slaughter:	1 (mastitis	—1.....6	(Nervous Disorder	—1
			(Fibrosed udder	—1
			(Mummified Foetus	—1
			(Abortion	—3

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TABLE II—Continued

Herd	1961	1962
4. Conventional Barn—A.I. and Natural Service		
Sold for breeding purpose:	4	2
Sold for slaughter:	5 (Poor production —2 Infertility —2 Mastitis —1)	1 (Poor production —1)
Died:	2 (Acute mastitis —1 Endocarditis and Arthritis —1)	
5. Loose housing and milk parlour—A.I.		
Sold for breeding purpose:	1	2
Sold for slaughter:	9 (Broken down udder —3 Infertility —1 Pyometra —1 Poor production —2 Calving problem —2)	11 (Broken down udder —5 Infertility —1 Arthritis —2 Size —1 Cystic ovaries —1 Poor production —1)
6. Conventional Barn —A.I.		
Sold for breeding purpose:	2	2
Sold for slaughter:	8 (Cervicitis —1 Abortion —2 Broken down udder —1 Poor production —3 Salpingitis —1)	3 (Cervicitis —1 Fractured Hip —1 Abortion —1)
Died:	1 (Massive hemorrhage mammary vein —1)	

TABLE III  
TOTAL ANNUAL VETERINARY COSTS OF HERDS ON HEALTH PROGRAM

Herd No.	Herd Health		Herd Health		
	1960	1961	1962		
1	\$458.50	\$658.25	\$120.00	\$611.25	\$ 97.50
2	\$508.25	\$546.75	\$130.00	\$651.25	\$107.50
3	\$604.00	\$769.60	\$140.00	\$918.35	\$135.00
4	\$159.25	\$343.50	\$ 90.00	\$288.00	\$115.00
5	\$175.50	\$364.25	\$ —	\$454.75	\$ 90.00
6	\$295.75	\$446.50	\$ 80.00	\$446.50	\$102.50

COMMENT

It is recognized that the above data give only an indication of what can be expected from a herd health program.

In each herd except #2 the calving interval was reduced, and in each herd except #4 the number of cows increased. Stone has estimated that by reducing the calving interval the dairyman earns \$1.30 per day per average cow (average meaning a 10,000 lb. per year producer and milk selling for \$4 per 100 lb.) (3). The resulting earnings ranged from \$249.60 to \$2,230 and in herd #2 the calving interval increased as did the number of cows in the herd.

Since going on the program the total annual veterinary costs have increased in all cases. Thus, from our experience an owner may expect an increased veterinary bill, but with increased net returns.

The number of animals removed from each herd varied and it is too early to evaluate this category. The culling of unprofitable animals is an important practice which a herd health program facilitates. It has been shown by Dr. Don Hillman at Michigan State University that a larger net income can be achieved by feeding and milking a small number of high producers as compared with a large number of low producing cows (2). From this standpoint the longevity of good brood cows influences the number of their progeny which will be available to the herd in future. This fact helps to illustrate that a herd program is a long range project and may best be evaluated after 8 or 10 years. However, we will attempt to evaluate our program periodically.

#### REFERENCES

1. HARTWICK, K. A., and CLARKE, T. W., Fisherville, Ontario. Personal Communication. 1962.
2. LASSITER, C. A. Better cows, not larger herds. *Hoard's Dairyman*. 107: 513. 1962.
3. STONE, J. B. Dry cow management. Ontario Department of Agriculture Farm Report. Vol. 2, no. 1, 1962.

#### ABSTRACT

The following is an abstract of a paper which will be presented at the 15th annual meeting of the Canadian Veterinary Medical Association in Saskatoon, Saskatchewan, July 15-17, 1963.

##### **A New Look at Swine Feeding Standards—J. M. Bell**

The history of the development of swine feeding standards is discussed with particular reference to the Morrison Feeding Standards and the U.S. N.R.C.-N.A.S. nutrient requirement tables. Limitations of these standards as applied to Canadian conditions are discussed in relation to: (a) problems of carcass quality and market returns; (b) variations in nature of basal grain used in the ration and (c) changing growth patterns of pigs.

Attempts at improving commercial grading results through modifying the level of digestible energy in the ration; by selective breeding for ability to produce high lean to fat ratio in the carcass and by feed restriction are described.

Results of three research projects involving use of electronic computers are presented. This technique has allowed simultaneous testing of all the major nutrients and the identification of problem areas in the application of predominantly U.S. data to Canadian feed formulation. The results have focused special attention on protein, lysine, riboflavin and pantothenic acid levels. The impact of such findings on practical feeding recommendations is discussed.