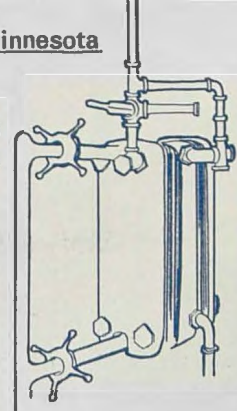
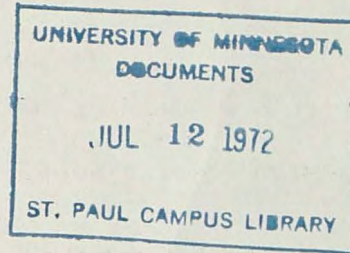


## 3 MINNESOTA DAIRY PRODUCTS PROCESSOR



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### MASTITIS PROBLEMS ARISE FROM IMPROPER PRACTICES

During a recent study in which the Abnormal Milk Control Program was evaluated, all farms showing a herd milk level of 1.5 million body cell count or higher were visited by a fieldman. Both milking equipment and milking practices were checked, and records were kept of all findings. A summary of these data gives us a profile of conditions existing on problem farms. In a sense, the findings are not new, but they do serve to reemphasize the need for dairymen to practice procedures generally accepted as essential in mastitis control.

### HOW THE HERDS WERE DIVIDED FOR THE STUDY

A total of 2,673 dairy herds supplying milk to the Twin Cities metropolitan area were selected for this study. They were divided into three groups:

- Group I (681 herds) -- Producers received no screening test results, and no field work was done.
- Group II (684 herds) -- Producers were informed of screening test results, but no field work was done.
- Group III (1,308 herds) -- Producers were informed of screening test results, and, where high somatic cell counts (1.5 million or higher, as determined by microscopic analysis) were noted, a fieldman visited the farm, helped the dairymen where possible, and filed a worksheet evaluation of milking equipment condition and milking practices.

Field visits were made to farms in Group I during the period of investigation. After the study was completed, herds from Groups II and III known to have had body cell counts of 1.5 million or higher were visited. In all groups, milking equipment condition and milking practices were noted and results tabulated. The data are shown in table 1.

Table 1. Status of selected components of milking equipment and milking procedure for dairy herds experiencing high somatic cell counts,<sup>1</sup> by study group<sup>2</sup>

Item	Percentage Satisfactory			
	Group I	Group II	Group III	All farms <sup>3</sup>
<u>Milking Equipment</u>				
1. Vacuum pump capacity	72.2	76.9	49.6	54.3
2. Operating vacuum	44.4	38.8	32.8	34.0
3. Vacuum line				
a. Size, looped	64.7	53.8	47.3	49.4
b. Number of risers and/or tightness of fittings	64.7	61.5	37.4	42.0
4. Vacuum controller				
a. Location	77.8	76.9	61.8	64.8
b. Operation	64.7	38.5	43.5	45.1
5. Pulsator speed	77.8	69.2	71.8	72.2
6. Stall size (stanchion) <sup>2</sup>	35.7	27.3	38.5	37.3
<u>Milking Procedures</u>				
1. Use of strip cup	11.1	7.7	11.5	11.1
2. Use of individual towels	16.7	15.4	11.5	12.3
3. Sanitizer in udder wash	88.9	92.3	86.3	87.0
4. Udder wash temperature at end of milking	5.6	15.4	16.0	14.8
5. Equipment sanitization prior to milking	72.2	76.9	57.3	60.5
6. Use of teat dip	33.3	15.4	17.6	19.1
7. Length of time milking units on cows	44.4	46.2	47.3	46.9

<sup>1</sup>Data were collected on herds in which bulk milk had been found to contain 1.5 million or higher somatic cell counts as confirmed by the microscope.

<sup>2</sup>There were 18, 13, and 131 dairy farm observations made in Study Groups I, II, and III. Of these, respectively, 14, 11, and 117 were stanchion barn installations.

<sup>3</sup>These percentages are inclusive of the three study groups taken together, involving a total of 162 dairy farm observations.

SUMMARY

There was no reason to expect that differences between study groups would be very great. In fact, the similarities in percentage of satisfactory practices would seem to imply that the selection process (high somatic cell count) isolated similar kinds of dairy farm operations.

Because of the numbers involved, the percentage of satisfactory responses for all farms is perhaps the most meaningful fact presented. These figures represent a total of 162 farms. The lowest percentage of satisfactory compliance was found for operating vacuum (34.0), stall size (stanchion barns, 37.3), use of strip cup (11.1), use of individual towels for udder wash (12.3), temperature of udder wash at completion of milking (14.8), and use of teat dip (19.1). Relatively high percentages of satisfactory responses were noted for vacuum controller location (64.8), pulsator speed (72.2), presence of sanitizer in udder wash (87.0), and equipment sanitization prior to milking (60.5).

Only half (46.9 percent) of the dairymen were milking cows at a rate of 5½ minutes per cow or less. Slightly over half (54.3 percent) had adequate vacuum pump capacity, and just under a half had looped vacuum lines and lines of proper size that were functioning properly. The vacuum controller was located satisfactorily in about 45 percent of the installations.

All in all, it seems apparent that on dairy farms experiencing high somatic cell counts a number of milking management practices generally considered important to mastitis control are not being followed.

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