

Use of Cloth Towels to Wash and Dry Udders

Mastitis educators have long advocated the use of a single-service towel - a towel that is used once and then discarded. This recommendation addresses the control of contagious mastitis pathogens, primarily *Staphylococcus aureus* and *Streptococcus agalactiae*, that are transmitted at milking time.

Paper towels that are used once and discarded work well as single-service towels. But as herds become larger, paper towels more expensive and towel disposal more difficult, there are now drawbacks. Alternatives to the traditional method of and materials for wash and dry are being sought. For now, the method of washing and drying udders cannot be omitted because the Pasteurized Milk Ordinance states an udder needs to be cleaned and dried before milking. A better material with which to wash and dry may be found and many dairies are now using cloth towels that are laundered between milkings.

Laundering of each cloth towel should include at least one of the following three practices: hot water wash, use of bleach, and hot air drying. Washing towels in cold water only without hot air drying and/or bleach could result in transmission of contagious mastitis pathogens.

At the Washington State University Dairy the cost-benefit of cloth towel usage has been investigated. The study compared standard paper towel use with use of udder cloths washed in hot water twice daily between cow milkings followed by hot air drying.

Table one illustrates the assumptions for the cloth towel system. The model includes the start-up cost (washing machine, dryer, and the cloth towels); operating costs (energy use, detergent and repairs) and a 5-year depreciation life for the washer and dryer with no salvage value. In a 200 cow dairy the cost of udder cloth towel laundering system is 3.95/cow/year (\$790/200 cows). This system, hot water wash and hot air drying, can be altered to reduce costs. Hot water wash plus bleach is only \$3.62/cow/year and hot water wash only costs \$2.70/cow/year.

The cost of one-use paper towels from quotes received range from \$0.016 to \$0.024 per towel or \$11.68 to \$17.52 cow/year. Cost of disposal of the paper towels was not included. Thus, the udder cloth system is 3-4 fold more economical than purchase of paper towels.

Use of completely dry towels may be perceived as more important in the cleaning and drying of udders than the economics suggest. Clearly, the material and method for handling udders may be altered to become more profitable and efficient.

Table One: Cost of Cloth Laundering System

Item Cost per year in \$	
Towels (200 at \$0.75 per towel)	150
Depreciation on washer and dryer (\$1000 cost - \$0 salvage + 5 year life)	200
Interest on washer and dryer (\$1000 + \$0 salvage) / 2 x 8% interest	40
Annual ownership costs for cloth laundering	390
Detergent (365 days x 2 washes/day x \$0.15)	110
Energy for washer and dryer (3,429 kwh x \$0.07)	240
Repairs and parts for washer and dryer	50
Annual operating costs for cloth laundering	400
Grand Total	790