

## CORRELATION BETWEEN TEAT END SCORES AND PRESENCE OF MASTITIS IN THE UGA DAIRY HERD

K. J. Alward and S. C. Nickerson

### **ABSTRACT**

Mastitis is an inflammation of the mammary gland caused by bacteria that affects 1 in every 3 cows and costs the producer an average of \$180/cow/year. Penetration of bacteria into the teat canal causing mastitic infections may be enhanced by hyperkeratosis, a thickening of the teat canal keratin, which provides a breeding ground for bacteria. The goal of this research project was to determine if a correlation existed between elevated teat end scores (degree of hyperkeratosis) and presence of mastitis and elevated somatic cell counts (SCC). For this study, ~30 purebred Holstein cows in early lactation were sampled. Their teat ends were scored on a scale of 1 to 4 according to level of severity, and teat canal swabs as well as milk samples were collected aseptically from each quarter for microbiological examination. Additionally, milk samples were evaluated for SCC using a DeLaval Cell Counter. The association of teat end score, infection status, and SCC was analyzed using the CORR procedure of SAS. Preliminary analysis of data suggested a relationship between mammary quarter infection status and teat score. Uninfected quarters exhibited an average score of 2.00, whereas the overall average score for infected quarters was 2.42. Among infected quarters, teat scores were CNS – 1.9, streptococcus – 2.0, prototheca – 2.0, S. aureus – 2.6, mold 3.0, and E. coli – 3.0. Results suggest that teat end hyperkeratosis is associated with presence of mastitis, and that management practices should be in place to prevent this condition and to promote healthy teat ends.