

Abstract

As part of an integrated study on health and production of dairy cattle on smallholder farms in central Kenya, quarter-milk samples, survey and production data were collected monthly for one year from 210 lactating cows on 89 farms. Each of these cows was sampled at least once during the study period. Farms were selected in a 2-stage stratified random sample. Average milk yield was low (5.8 kg/day; median = 5 kg/day) and lactation length was long (20 months). Clinical mastitis risks were low (1% per month). Somatic cell counts (SCC) were high (median = 620×10^3); the previously suggested threshold of 300000 cells/ml would classify 71% of quarters as positive for subclinical mastitis. Bacteria were commonly isolated, with *S. aureus* the most-common pathogen isolated (22.1% of all samples). Infections with mastitis pathogens, cow-age and milk yield were associated with increases in SCC. However, *S. aureus* was the only mastitis pathogen associated with decreased milk yield. Few specific mastitis-control measures were applied. The only farm-level variable associated with high SCC was the method of drying off. Gradual drying off decreased SCC.