A cross-sectional study was conducted on prevalence of mastitis, its bacterial causes, their antibiotic sensitivities and management practices of sahiwal and dairy cattle kept at a centre of Kenya Agricultural & Livestock Research Organization (KALRO) in Naivasha, Kenya. Clinical mastitis was diagnosed through physical examination of cows' udders and milk. California Mastitis Test (CMT) was used to detect subclinical mastitis (SCM). Bacterial causes were determined by culture and their antibiotic sensitivities investigated by subjecting them to the commonly used antibiotics. Fifty cows were randomly selected from each herd giving a total of 100 cows. Prevalence of clinical mastitis in sahiwals at cow level was 6% (3/50) and subclinical mastitis (SCM) was 54% (27/50). Dairy herd had only SCM with a cow level prevalence of 36%. Prevalence of SCM was significantly different ($p<0.05$) between the herds. Sahiwal herd had 93.8% bacterial recovery rate with Staphylococcus species as the predominant bacteria (86.7%) (n=30). Other isolates included Streptococcus 6.3%, Corynebacterium 3.3%, and Escherichia coli. Mixed infection of Staphylococcus and Streptococcus was found in one case. Milk samples from dairy herd had a bacterial recovery rate of 85.7% with Staphylococcus species as the predominant (55.6%) bacteria. Other isolates included Streptococcus species (38.9%) and Corynebacterium (5.6%). Mixed infection consisting of Staphylococcus and Corynebacterium (5.6%) was also detected. Staphylococcus isolates had highest sensitivity to Gentamycin of 100% while Streptococci had the highest sensitivity for Ampicillin and Gentamycin of 100%, respectively. The isolates showed resistance to some commonly used antibiotics such as sulphamethoxazole, streptomycin and tetracycline. Bovine mastitis is prevalent among cows at KALRONaivasha and appropriate control methods needs to be applied to lower this prevalence. Further, this study has shown that Gentamycin and ampicillin are the drugs of choice for treating bovine mastitis in this institute. In fact, knowledge on prevalence of mastitis causing organisms and their antibiotic sensitivities will boost efficacy of therapy and cow productivity.