The prevalence of mastitis was 6.76 per cent in dairy cows and 11.76 percent in buffaloes. Comparatively higher prevalence rate was recorded in high yielders, crossbreds, early lactation and in animals above third lactation. Hind quarters were found to be more prone to mastitis (59.57%). Clinical signs were quite appreciable in both peracute and acute mastitis.

The fore-milk samples of 141 mastitis quarters from 81 cows and 12 buffaloes of different age group, parity and lacteal stage, were collected and subjected to Bromothymol blue test (BTB), california mastitis test (CMT), somatic cell count (SCC) and citrate estimation to confirm presence of mastitis. California mastitis test (CMT) was found to be most efficacious for on the spot field diagnosis of mastitis.

The cultural sensitivity test (CST) of milk samples of cows yielded *Staphylococcus spp*. (54.05%), the prime causative organism followed by *streptococci* (14.41%) and *E. coli* (11.71%). The microbial profile obtained from milk samples of buffaloes was similar to that of cows primarily *staphylococcus spp.* (63.15%) followed by *E.coli* (15.79%) and *Enterobacter aerogenes* (10.53%).
The in vitro drug sensitivity pattern was maximum for enrofloxacin (93.07%), followed by gentamicin (80.76%), cloxacillin (64.61%), chloramphenicol (59.23%), amoxycillin (53.84%), streptomycin (52.23%), ampicillin (44.6%), chlortetracycline (36.15%), cephaloridine (34.16%), and penicillin (17.69%).

Clinically, combination of ampicillin and cloxacillin used intramammary (75mg +200mg) 12 hourly per affected quarter as well as parenterally (8mg/kg b. wt.) 24 hourly for 3-5 days proved most effective showing a cure rate of 81.81 l percent on animal and 74 percent on quarter- basis followed by gentamicin, enrofloxacin and penicillin.