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Under Changing Global Scenario

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### **Compendium of Lead Papers and Abstracts**

**MTY-107**

### **CYTOGENETIC ANALYSIS OF BREEDING BUCKS OF OSMANABADI BREED BY USING QFQ BANDING**

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The present cytogenetic study of breeding bucks of Osmanabadi breed maintained at Nimbkar Agriculture Research Institute, Phaltan, Dist-Satara was undertaken by using QFQ- banding technique. Short term lymphocyte culture technique was used for display of metaphase chromosomes. For Q banding different concentrations of quinacridinedihydrochloride and exposure time were tried and best bands were obtained at 0.25 per cent of Quinacridinedihydrochloride treatment for 20 minutes. The normal chromosomal complement were observed i.e. modal diploid chromosome number was  $2n=60$  Osmanabadi bucks. There were 29 pairs of autosomes and one pair of sex chromosome in complement. The X chromosome was the largest acrocentric chromosome whereas the Y chromosome was the smallest dot like in majority of the metaphase examined however, in few metaphases it was found to be submetacentric in morphology. The karyotype was arranged according to Hansen (1973) and ISCNDB (2000) nomenclature. First 15 pairs of the autosomes show characteristic Q- band patterns. Whereas, in remaining pairs of autosomes Q band pattern was not observed due to low fluorescence intensity. The QFQ banding technique was found to be simplest banding technique and helped in identifying almost all the chromosome. However, it was noted that the goat chromosome do not present the brilliant fluorescence. No marked chromosomal abnormalities were observed in the present study.