

Cytogenetic studies of buffaloes in Romania

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The karyotype of two buffalo populations, somehow phenotypical different and geographically isolated was studied in Romania. The diploid chromosome number in the both populations was found to be $2n = 50$ with five meta- and submetacentric and 20 acrocentric chromosome pairs, the former type including the sex chromosomes (the largest and the smallest of the acrocentric chromosomes).

The study of C bands revealed an uniform disposition of heterochromatin in pericentromeric regions of acrocentrics and it was rather faint in meta and submetacentric chromosomes.

Our results support the view that the buffaloes from Romania belong to the same Asiatic buffalo type.

Enzyme activity in lines of pigs selected for high and low fatness

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The effect of selection in two directions on an index comprising high growth rate and low backfat thickness on the activity of the NADPH-generating enzymes,

NADP - malate dhydrogenase
Gemose-6-phosphate dehydrogenase
6-phosphogluconate dehydrogenase
NADP - isocitrate dehydrogenase

in subcutaneous fat tissue of pigs was studied.

These enzymes are necessary for the production of NADPH, for the reduction of acetyl-CoA to fatty acids, and should be a good index for the synthetic activity of the fat tissue.

The investigation showed, with the exception of NADP-isocitrate-dehydrogenase, highly significant differences in enzyme activity between the selection lines. The line selected for high backfat and low growth had the highest enzyme activity. The results show that selection for growth and backfat may change the rate of fatty acid synthesis in fat tissue of pigs.