

## THE IMPACT OF FORAGE ADDITIVE SEL-PLEX™ CONTAINING ORGANIC SELENIUM (Se) ON MORPHOLOGICAL AND BIOCHEMICAL BLOOD PARAMETERS AND ACTIVITY OF ENZYMES GPx AND δ-ALRD IN FATTENING PIGS

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**Summary.** The aim of this study was to evaluate the influence of organic selenium (Se) on morphological and biochemical blood parameters and activity of enzymes glutathione peroxidase (GPx) and delta – aminolevulinic acid dehydratase (δ-ALRD) in fattening pigs. Sel-Plex™ is a natural greyish product, based on the yeasts, which presents selenium in an organic form (from *Saccharomyces cerevisiae* CNCM I-3060 (no 3b8.10) present in a natural environment. The crossbreeds of Landrace and Duroc of 2 month of age were allocated into two groups according to the principle of analogous: control (n=30) and experimental (n=30) and examined from weaning until 5 month of age. All pigs were fed with composite forage. Supplement of 0.3 mg/kg Sel-Plex™ was added into the forage of experimental pigs while controls were given no supplement. It was detected that the supplement Sel-Plex™ has increased the level of selenium in the blood and activity of GPx ( $p<0.05$ ) during experimental period. The increase in activity of δ-ALAD ( $p<0.05$ ) in 3 month age pigs from experimental group was related with increased levels of hemoglobin, iron and total protein ( $p<0.05$ ) in the serum of experimental pigs. In conclusion, the organic selenium had the positive impact on morphological and biochemical blood parameters in fattening pigs and therefore it could be used as functional nutrient, which improves the activity of antioxidation system and wellness of animals.

**Keywords:** selenium, glutathione peroxidase, delta-aminolevulinic acid dehydratase, pigs.