

*Full Length Research Paper*

## **Carcass characteristics of two strains of native broilers (White Naked Neck and Black Svrlijig) fattened under a semi-intensive system**

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This study involves the analysis of two breeds [Naked Neck (NN) and Svrlijig chickens (Sv)], that is, strains [White Naked Neck (WNN) and Black Svrlijig strain (BSv)] of chickens (birds) of both sexes reared under a semi-intensive system until day 84 of age. At 28 days of age, the test birds were kept in a litter housing system (about 8 birds/m<sup>2</sup>), following which they were provided a free-range paddock at 4 m<sup>2</sup>/bird. The following parameters were evaluated in the two strains and sexes of broilers (totalling 56 chickens) aged 84 days: body weight at slaughter, carcass weight, yields of breasts, thighs, drumsticks, wings, pelvis, back, head, neck, feet, abdominal fat and giblets. At the end of the fattening period, the test broilers of both sexes of the WNN strain had higher values ( $P < 0.05$ ) for yield of drumsticks and thighs (34.20 to 33.93%), a statistically lower yield ( $P < 0.01$ ) of the back and pelvis (26.34 to 26.97%), and a somewhat higher live body weight (1587.07 to 1562.28 g). The difference was not statistically significant ( $P > 0.05$ ); however, a similar yield was obtained for ready to grill carcass (61.73 to 61.99%) when compared with the black Svrlijig strain. The differences obtained were not statistically significant ( $P > 0.05$ ). In addition to the genotype (breed, strain), broiler sex had a statistically significant effect ( $P < 0.001$ ;  $P < 0.01$ ;  $P < 0.05$ ) on body weight, carcass yield, yields of drumsticks and thighs, wings, head, feet, giblets and abdominal fat. Specifically, male broilers were found to have higher live body weight (1669.29 to 1480.07 g), carcass weight (1342.86 to 1198.28 g), yields of head (5.13 to 4.39%), drumsticks and thighs (34.26 to 33.96%), feet (5.39 to 5.06%) and giblets (6.46 to 6.31%), whereas the relative yields of carcass (conventional processing (CP): 80.96 to 80.44%; ready to roast (RR): 73.02 to 72.19%; ready to grill (RG): 62.30 to 61.45%), wings (14.06 to 13.76%) and abdominal fat (1.13 to 1.07%) were higher in female broilers.

**Key words:** Semi-intensive system, carcass quality, sex, white naked neck strain, black Svrlijig strain, organic production.

### **INTRODUCTION**

The regulation on organic livestock production methods adopted by the Republic of Serbia in 2002 stipulates, inter alia methods of organic poultry production required to define choice, type and breed of poultry, rearing system,

nutrition, disease prevention and health protection of poultry. In recent years, it returned to natural that open farming or organic livestock production has attracted increasing attention aimed at improving rearing conditions, enhancing poultry meat and egg quality, advancing the development of organic animal-derived food production, reducing production costs and protecting the environment. The free range production of chicken meat is regulated by the European Union (EU Directive EWG

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