

FATTY ACIDS CONTENT OF *M. LONGISSIMUS DORSI* OF MORAVKA PIGS (S4P15)

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Fatty acids composition of *m. longissimus dorsi* (MLD) of Moravka pigs was analyzed considering also the effect of sex and body weight of pigs at slaughter. Pigs were reared in facilities with the open-air section and fed a complete feed mixtures adapted to the stage of growth (from 20-60 kg mixture I: 15.50% of crude protein (CP) and 12.95 MJ metabolisable energy (ME)/kg,; from 60-120 kg mixture II: 13.00% CP and 13.05 MJ ME/kg). The study included 21 pigs (12 castrated males and 9 females). Pigs were slaughtered at 339±30 days of age and 112.8±19.9 kg of live weight. MLD of Moravka pigs had the following fatty acids composition: 41.8 % saturated fatty acids (Σ SFA), 54.0% monounsaturated fatty acids (Σ MUFA) and 4.1% polyunsaturated fatty acids (Σ PUFA) resulting in value 0.10 for the ratio of polyunsaturated to saturated fatty acids (P/S). Fatty acids C16:0 and C18:0 represented the largest share of Σ SFA (61.7 and 34.3 %, respectively), C18:1 and C16:1 the largest share of Σ MUFA (90.1 and 7.1%, respectively), and C18:2 the largest share of Σ PUFA (93.5%). With regard to sex effect, castrated males exhibited higher content of saturated fatty acids C14:0 (1.42 vs. 1.26, $P=0.046$) and C18:0 (15.07 vs. 13.38, $P=0.025$) than females. Significant effect ($P<0.05$) of body weight was observed on some fatty acids; thus 1 kg increase of slaughter weight was accompanied with 0.036% decrease of linoleic acid (C18:2n-6), 0.038% decrease of total content of polyunsaturated acids (Σ PUFA), 0.020% increase of palmitoleic acid (C16:1cis-9), 0.067% increase in total content of monounsaturated fatty acids (Σ MUFA), 0.003% increase of C17:0. Ratio P/S decreased by 0.001 unit per kg increase of slaughter weight. In agreement with their high relative content, a strong correlation ($r_P=0.79$ and $r_P=0.77$) was found between C16:0 and C18:0 and total content of saturated fatty acids (Σ SFA), between C16:1cis-9 and C18:1cis-9 and

Σ MUFA ($r_P=0.80$ and $r_P=0.98$, $p<0.001$), and between linoleic acid (C18:2n-6) and Σ PUFA ($r_P=0.99$, $p<0.001$).

Keywords: indigenous pig breed, sex, muscle tissue, fatty acids

Acknowledgments: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 634476 (Project acronym: TREASURE). The content of this paper reflects only the author's view and the European Union Agency is not responsible for any use that may be made of the information it contains. Research was partly financed by the Ministry of Education, Science and Technological Development of Republic of Serbia, project TR 31081.