

_____ ABSTRACT _____

Heterogeneous composition of histochemical fibre types in the different parts of *M. longissimus thoracis* from Mishima (Japanese native) steers.

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In Mishima (Japanese native) steers, histochemical properties of *m. longissimus thoracis* were examined at 3 parts: on the level of 6th thoracic (LT I), 11th thoracic (LT II) and 5th lumbar vertebra (LT III). Myofibres were categorized into Type I, II A and II B. The same fibre type composition (I, 37%, II A, 17%, II B, 46%) was observed at LT I and LT III and another (I, 26%, II A, 15%, II B, 59%) at LT II. At each part apparent regional differences of fibre type composition could not be demonstrated except for Type I between medial and lateral subpart at LT I and Type II A between central and lateral at LT III because of its marked variation among the individual steers. Relative fibre diameter of Type I to Type II A in the combined data was large at LT I and LT III. Type II B fibres showed larger diameter than Type I only at LT III. From these results it was suggested that Mishima steers have maintained another histochemical property of the longissimus muscle differing from that of Japanese Black steers (Gotoh, Iwamoto, Ono, Nishimura, Matsuo, Nakanishi, Umetsu & Takahara, (1994). Comparative study on the regional composition of fiber types in *M. Longissimus thoracis* with different marbling scores for Japanese Black steers. *Animal Science and Technology*, 65, 454-463).

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