

EFFECT OF ADDITION OF MANNAN OLIGOSACCHARIDES AND ORGANIC ACIDS IN THE FEED ON CARP (*Cyprinus carpio* L.) FLESH COLOUR CHARACTERISTICS, TECHNOLOGICAL AND SENSORY PROPERTIES

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Abstract. The aim of this study was to analyse the influence of addition of mannan oligosaccharides (MOS) and organic acids (OA) in the feed on carp flesh colour characteristics, technological and sensory properties.

Carp feed was enriched with 0.2% mannan oligosaccharides (group 2) and composition of 0.2% MOS + 0.2% OA (group 3). Group 1 was fed with compound feed only and was analysed as control.

The results showed that MOS and OA practically had no influence on pH or cooking loss of carp flesh. Colour characteristics such as lightness (L*), yellowness (b*) and colour intensity (C) were not affected by carp feed composition, but the addition of MOS or MOS + OA increased the redness value (a*).

Muddy odour and taste were most intensive for the control samples, while the addition of the supplements to carp feed decreased intensity of this characteristic. Muddy flavour is common for freshwater fish grown in different ponds, but as it is unpleasant for some consumers, more detailed investigation is necessary with the aim to analyse the possibility to use MOS and MOS + OA for elimination of this flavour.

Other sensory properties were not affected by feed compositions; thus, the analysed supplements can be added to carp feed without altering carp flesh quality.

Keywords: carps, mannan oligosaccharides, organic acids, flesh, quality, colour, sensory attributes