CARPATHIAN JOURNAL OF FOOD SCIENCE AND TECHNOLOGY

Journal home page: **http://chimie-biologie.ubm.ro/carpathian_journal/index.html**

REDUCTION OF NITRITES ADDITION IN COOKED SAUSAGES FROM PHYTONUTRIENT SUPPLEMENTED PORK

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https://doi.org/10.34302/crpjfst/2020.12.4.7

Article history:
Received:
17 September 2020
Accepted:
17 December 2020

Keywords:
Dihydroquercetin;
Dry distilled rose petals;
Pig's feed;
Sensory properties;
TBARS.

ABSTRACT

The aim of this study was to develop functional cooked sausages with reduced nitrites addition manufactured using pork after daily supplementation with 3.5 and 7.5 mg dihydroquercetin (DHQ) (samples D1 and D2, respectively) or 0.255 and 0.545 g dry distilled rose petals (*Rosa damascene* Mill.) (DDRP) (samples R1 and R2, respectively)/kg live weight/d. The sensory properties, colour characteristics (L*, a*, b*), TBARS and shelf life of the sausages were studied. Lower concentration of used phytonutrients approve sensory acceptance of sausages with half added nitrites. Higher doses of DHQ and DDRP supplements increased the sausage pH by 3% ($p < 0.05$). The use of 0.545 g DDRP /kg live weight/d as a feed supplement decreased the L* value and increased the redness (a*) in processed sausages while the higher doses of DHQ show an opposite effect. Feed enrichment with DHQ or DDRP is appropriate for manufacturing functional sausages with half added nitrites addition due to the stabilizing effect on colour (L*, a*, b*) characteristics in dynamics, the decreasing of TBARS and the increasing of the sausages shelf life.