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农产品辐照研究 · 食品科学

电子束辐照对冷鲜猪肉品质的影响

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摘要:

以冷鲜猪肉为试验对象,研究电子束辐照对冷鲜肉品质的影响。采用不同剂量电子束(0、2.0、3.8、6.2、8.3、10.5 kGy)辐照肥瘦比为1:6的冷鲜肉,测定冷鲜肉的蛋白质与粗脂肪含量的变化;研究了冷鲜肉的TBARS值、过氧化值、双烯值的变化,分析冷藏过程中猪肉氧化程度的变化,并进行色度及感官的测定。结果表明:经电子束处理后,冷鲜肉的蛋白、粗脂肪含量没有明显变化;冷鲜肉的TBARS值、过氧化值有增加,总双烯值有一定程度的增加;3.8、6.2 kGy剂量组在贮藏期内色泽好;不同剂量电子束处理,对冷鲜猪肉感官品质无显著影响。综合考虑:经过4~6 kGy电子束处理能有效延长冷鲜肉保质期,并对其品质无明显影响。

关键词: 电子束 冷鲜肉 品质

## Effect of Electron Beam Irradiation on Quality of Fresh Chilled Pork

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Abstract:

The effects of electron beam irradiation on nutrient quality, lipid oxidation and sensory quality of fresh chilled pork were investigated. Fresh chilled pork whose fat to muscle ratio was 1:6 was ground and packaged, and then irradiated at doses of 0, 2.0, 3.8, 6.2, 8.3 and 10.5 kGy. The contents of fat and protein, chromaticity, sensory characteristics, lipid oxidation index of TBARS value, POV, diene value of irradiated and unirradiated samples were measured. The results showed that there were no significant differences (5% level) in content of protein and fat between irradiated and control samples, but irradiation could significantly increase TBARS value and POV. EB irradiation enhanced the increase of total diene value. The samples treated with 3.8 and 6.2 kGy showed good color during storage. There were no significant differences in sensory characteristics among different EB doses. It is concluded that 4-6 kGy EB irradiation, which is effective for decontamination, shows no significant effect on qualities of fresh chilled pork.

Keywords: Electron beam Fresh chilled pork Quality

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