

胡萝卜微粉物理特性和营养成分的影响因素 Influence Factors on Physical Properties and Nutrient Component for Carrot Micro-powder

宫元娟 曾程 王强 秦军伟

沈阳农业大学

关键词: 胡萝卜 微粉加工 物理特性 营养成分

摘要: 胡萝卜微粉制备中,影响微粉物理特性及营养成分的试验分析表明:热风 and 微波干燥获得的胡萝卜微粉容积密度大,冷冻干燥的胡萝卜微粉容积密度小。微波干燥获得的胡萝卜微粉溶水性好,其次是冷冻干燥;胡萝卜生粉比熟粉溶水性好。胡萝卜生粉的氨基酸质量比高于熟粉和冻融粉;真空冷冻干燥生胡萝卜,粉碎粒径小于240目时,氨基酸质量比高。经过冻融处理的胡萝卜微粉VC质量比高于其生粉和熟粉;冷冻干燥的胡萝卜微粉VC质量比高。类胡萝卜素质量比随着粒径减小而减小;冷冻干燥冻融处理的胡萝卜,在粉碎粒径为80~120目时,类胡萝卜素和VC质量比高。 Analysis of physical properties and nutrient components of the carrot micro-powder showed that the carrot micro powder gained by the hot air drying and the microwave drying had the larger bulk density than by the freeze drying. Water solubility of the carrot micro-powder gained by the microwave drying was higher than gained by the freeze drying; water solubility of the raw carrot micro-powder was higher carrot than the cooked. The amino acid mass ratio of the raw carrot powder was higher than the cooked carrot powder, the freezing and thawing powder. Treated with the freeze-drying, the amino acid mass ratio of the raw carrot powder was the highest, and the powder granularity was smaller than 240 mesh. The vitamin C mass ratio of the carrot micro-powder processed by the freezing and thawing was higher than the raw and the cooked carrot powder. The vitamin C mass ratio of the carrot micro-powder processed by the freeze drying was the highest, and then the vacuum drying. The smaller the granularity was, the less the carotenoids mass ratio was; the carotenoids mass ratio and the vitamin C mass ratio ware the highest when the freeze-thaw carrot was processed by the freeze drying, and the granularity was 80 to 120 meshes.

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