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KEY WORD : DEGENERATIVE DISEASES / REDUCED SODIUM / REDUCED SUGAR / DIET THERAPY / PRESERVED MEAT

WARAPHUN JINTANUGOOL : DEVELOPMENT OF PRESERVED ANIMAL PRODUCTS WITH REDUCED SODIUM AND SUGAR CONTENTS. THESIS ADVISOR : VISITH CHAVASIT, Ph.D., SOMSRI CHAROENKIATKUL, D.Sc., MALAIWAN ARAYASKUL, M.Sc. 103 p. ISBN 974-589-075-8.

Oriental style meat product usually contains high sodium and sugar contents, therefore these products have to be limited during diet therapy of patients with degenerative diseases. Four kinds of oriental style meat product, (i) Chinese-style shredded pork (Moo-Yong), (ii) sweeten dried meat (Nua-Sawan), (iii) Chinese-style sausage (Kun-Chieng) and (iv) salted egg were included in this study. By using traditional recipes, these meat products were first made and used as control recipes. The control recipes had obtained the acceptable sensory evaluation results which were 7-7.5 from a nine-point hedonic scale. The substitute recipes were developed by replacing potassium chloride for salt, sorbitol and saccharin for sugar, and N-Oil™ for fat. Scores for sensory overall palatability of substitute recipes were in the range of "like slightly" to "like moderately" (6.5-7) on nine-point hedonic scale which were not significantly different ($p > 0.05$) from palatability scores of control ones. Sodium contents in the selected substitute recipes could be reduced by 36-52 percent, except for salted egg that was only 26 percent. Potassium contents had increased by 117-480 percent. Sugar contents could be reduced by 60-68 percent, except for Moo-Yong that was only 37 percent. The fat content of Kun-Chieng for both control and substitute recipes were still not much different. The shelf life of substitute products at room temperature were 8 weeks for Moo-Yong, 6 weeks for Nua-Sawan, 4 weeks for Kun-Chieng, and 1 week for salted egg. Water activity, peroxide value, and microbial counts increased but were still within the acceptable ranges. Sensory qualities of substitute products did not change upon storage. Costs of raw materials of most substitute recipes were higher than the control ones.