

Analysis, Creation of Nutritional Property, Processing and Preservation of Processed Food from Wild Silkmoths

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Abstract

Survey and collection of tasar silkworm (*Antheraea* spp.) in northeastern region of Thailand were carried out during 2010-2011. *Antheraea* spp. were found in amphoe Ban Pai and Male and female cocoons were randomly measured and weighted to characterize morphological characters. Fresh female cocoon (Ø1.61 x 4.31 cm) was bigger than fresh male cocoon (Ø 1.42 x 3.46 cm). Average size of female pupa (1.13 x 2.81 cm) was also bigger than of male pupa (0.84 x 2.25 cm). The fresh cocoon – and pupa weight of female (Ø 2.28 g, 2.14 g) were more than of male (Ø 1.25g, 1.14 g) much more than male cocoon. However, average male cocoon shell weight (0.07 g) was heavier than average female cocoon shell weight (0.05 g). In addition, the average shell weight percent of male cocoon (5.62 g) was higher than of female (2.20 g). Also the pupae were analyzed on nutritional value using proximate analysis. The result revealed 74.12% moisture content, 55.06% protein, 31.56% lipid, 6.24% fiber, 4.55% ash and 2.60% carbohydrate. Besides, tasar pupae were used for menu development. Four menus were preliminary developed i.e. tasar pupa chili paste with fermented fish flavor, tasar pupa Tai Pla curry, tasar pupa curry with sour flavor and tasar pupa Kiew Wan curry. All menus were evaluated from the insect consumer. Result showed that tasar pupa chili paste with fermented fish favor was the most preference. The tasar pupa was also evaluated for time preservation. The quality of row pupa was still good after refrigerated at -20 °C for 7 months.