Jariya Chooekawong 2009: Cantaloupe Cultivation with Mulch Film: A Case Study of Cultivators in Plabplachai Subdistrict Area, U-Thong District, Suphan Buri Province. Master of Science (Agricultural Research and Development), Major Field: Agricultural Research and Development. Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Am-on Aungsuratana, Ph.D. 191 pages.

The objectives of the study were to determine 1) some personal background of cantaloupe cultivators, 2) their existing cantaloupe cultivating conditions, 3) mulch film utilization adoption in cantaloupe cultivation, 4) the relationship between some personal background of cantaloupe cultivators with cost and income in cantaloupe cultivation and 5) their constraints and recommendations in cantaloupe cultivation improvement. Studied samples were selected 42 cantaloupe cultivators who have been used mulch film under government and private sector promotion program, Plabplachai subdistrict area, U-Thong district, Suphan Buri province through completely random sampling technique. Interview schedule was obtained to collect data. Descriptive statistics used for analysis were frequency, percentage, arithmetic means, and standard deviation. Inferential statistics for testing hypothesis was Pearson product moment correlation.

The findings revealed that most of major and minor occupation was cantaloupe cultivation. Average cantaloupe cultivation land tenure per household was 1.1 rai (0.18 hectares). Recommended varieties were "MORAKOT" and "PARADISE". Average cantaloupe cultivation experience was 2 years. Average cantaloupe cultivation annual income was 205,516.9 baht per rai. On the contrary, average annual variable cost was 136,053 baht per rai while fixed cost for greenhouse over 10 years operation was 450,000 baht. Average household member labor force was 3 persons and average hired labor force was 4 persons. Most of respondents strictly applied chemical fertilizer over cultivation period in accordance with private company recommendations. Major disease and insect pest were downy mildew and thrips. Most respondents controlled insect pest by mean of chemical application. Production were sold at guarantee price. Majority of respondents had ever used mulch film for cultivation before engaged in promotion project. They had recognized the benefit from mulch film utilization including moisture control and plant protection, less constraints in weed eradication and more yield. They could also use the right color side of mulch film. Most constraints were pathogen and insect dispersion, particularly over rainy and winter season. Around 76.2 percent of respondents needed government agencies to provide cultivation technique to meet quality standard requirement. Testing hypothesis indicated that factors affecting cost in cantaloupe cultivation were cantaloupe cultivated areas, cantaloupe labor force and source of knowledge, respectively. On the contrary, factors affecting income in cantaloupe cultivation were household farm labor force, household income, number of farm labor force and source of knowledge, respectively.

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