Abstract

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The purposes of this study were to study changes in cropping systems, cropping system sustainability and to investigate problems, obstacles and suggestion on cropping systems of farmers in Chiang Mai.

Population studied were farmers in the irrigation areas in Mae Kung village of San Pa Tong district and Harn Kaew village of Hang Dong district, Chiang Mai. A Simple Random Sampling method was used to get 44 farmers in Mae Kung village and 64 farmers in Harn Kaew village and making 108 farmers altogether. Data were collected by the use of questionnaire and analyzed through uses of percentage, arithmatic mean and standard deviation.

The research findings were as follows:

The cropping system at Mae Kung village were changed from rice-soybean and rice-vegetable, used to be the first and second ranks respectively, to rice-vegetable and rice-soybean. The number of farmers who used to plant the third crops was reduced from 28.26 percent to 9.09 percent. At Harn Kaew village, cropping systems were changed from rice-soybean and rice-tobacco to rice-soybean but tobacco was abandoned. Eighty percent of farmers are now growing longan due to the better income. Third crop planting farmers increased from 3.64 percent to 4.69 percent. As for agricultural area, at Mae Kung village, the area was reduced from 1080 rai to only 480 rai (55.56 percent) where as At Harn Kaew village, it was reduced from 960 rai to 320 rai (remaining one third of the area in the past).

As for the sustainability on cropping system, it was found that the level of sustainability of Harn Kaew village was higher than that of Mae Kung. Mae Kung's farmers had less problems so they could solve almost everything. To be compared with Mae Kung's area, the levels of cropping system sustainability were high in some issues, as a whole the said level was at moderate. Moreover, the farmers could solve some of their problems and also at moderate level. The problems found were lacking of water and water source, high input costs, spreading out of insect and pest, lacking of money for investment and low price of agricultural products. Farmers in both villages need assistance from extension agents in terms of crop growing, crop maintenance and plant protection.

Recommendations made were that plantation land should be managed for better irrigation system, enabling farmers to plant all year round. Third crops should be introduced to increase farmers income. As for plant protection, both chemical and biological methods should be taught to farmers. In addition, for solving the shortage of capital for investment financial support should be provided. If all of these problems were solved, better standard of living and quality of farmers' life could be achieved.