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**THE OPTIMAL FARM SIZE ANALYSIS OF PON YANG KHAM BEEF  
CATTLE****Abstract:**

Pon Yang Kham (PYK) Livestock Cooperative Limited is a local business organization located in Sakon Nakhon Province, Thailand. It has an essential economic role in assisting the farmer and the community by creating a fair income distribution. However, it is problematic because the PYK Livestock Cooperative Limited oversupplies the fattening cattle and does not control the cattle production. This present research is the survey research that aims to investigate the costs and returns of the beef cattle production and to find out the optimal farm size. The primary data were collected from 409 farmers in the cooperative by using questionnaire. The costs and returns of production were analyzed and classified by the size of the farm to point out the farm size that is worth the investment or most appropriate.

The results revealed that the average number of cattle of an individual farmer was 10.10: 3.50 bull and cow, 2.64 calf and growing cattle, and 3.50 feedlot cattle. The cost of cattle production is divided into variable costs and fixed costs, which were ranged yearly 300,185.88 and 17,279.13 Thai Baht. Concerning a total income, it was 274,836.43 Thai Baht per annum. The net return of the production annually including the total revenue over cash cost, the total income over variable costs and the total income over total costs were 25,984.81, - 8,163.72 and - 13,728.42 Thai Baht, respectively. While the net return of the production per the number of cattle was 25,984.81, - 8,163.72 and - 13,728.42 Thai Baht, it is also found that the optimal farm size of beef cattle was the medium size farm, not having over ten beef cattle and three feedlot cattle.

The results suggested the PYK Livestock Cooperative Limited should encourage farmers to raise the beef cattle as a supplementary occupation by aiming to have no more than ten cattle farm in size. In so doing, the cost of the production cost can be reduced by breeding cows themselves and by feeding an appropriate food for beef cattle age. Last, the PYK Livestock Cooperative Limited should adjust the suitable slaughter quota to the amount of farmers' beef cattle and should increase distribution channels to accommodate future production potential.

**Keywords:**

Pon Yang Kham beef cattle, fattening cattle, the costs and returns analysis, the optimal farm size

**JEL Classification:** D24, Q12