The Study of Farming Cost and Return of Beef Cattle Farming of Farmers in Laharn Subdistrict, Yingo District, Narathiwat Province

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Abstracts

Study of farming practices and the return of beef cattle farming in Laharn Yi-ngo District, Narathiwat Province, was conducted by interview and observation. The data was collected from beef cattle farmers in Laharn, 175 of the 316 respondents responded to the survey. According to the study, beef cattle farming in Laharn sub-district. In Yi-nong District, Narathiwat Province, was found that 84 percent of the beef cattle raised by most farmers were native cattle. Hybrid cattle, native adult cattle and hybrid cattle averaged 6,818, 7,615, 15,698, and 17,885 2) Fixed cost native cattle breeds averaged 120 baht. 0 Baht Indigenous cattle averaged 527 baht and hybrid cattle averaged 567 baht 3) The variable cost of native cattle averaged 2765 baht, hybrid cattle averaged 2805 baht, native cattle averaged 5650 baht, and hybrid cattle averaged 6180 baht, including the total cost used to feed beef cattle. The average hybrid cattle breed is 10,680 baht, native cattle breeds average 21875 baht, and hybrid cattle average 24,632 baht per beef cattle. Farmers' returns from beef cattle farming In conclusion, farmers' incomes are different from raising native cattle. The average income is 10,707baht, hybrid cattle average is 12,800 baht, native adult cattle average 25100 baht and hybrid cattle average 28500 baht.

Keywords: Farming figures, costs and returns on beef cattle farming

Introduction and Background

Beef cattle farming in three southern border provinces of Thailand is an agricultural career that provides great earnings to farmers and traders in the area because people prefer consuming beef cattle, especially Islamic people and Buddhists in the area. Moreover, there is a tendency to export beef cattle to be sold in Malaysia.

In three southern border provinces, most farmers raise cattle as a side hustle. Their main occupation is a rubber tapper. Beef cattle farming is an agricultural job that provides a high economic value compared to rubber tapping or palm farming. At the present, the farmers have realized the value and return of beef cattle farming. The group of beef cattle farmers is established in the area to increase the number of beef cattle to be sufficient for consumption in the area and to export to Malaysia. However, there are problems with appropriate species of cattle in the area, plants which is the food of the cattle, concentrate for feeding beef cattle, and health care of cattle. Consequently, beef cattle from the upper parts of Thailand are imported, such as from central Thailand and Northeast Thailand. During the Islamic festival, it is found that beef cattle is rather deficient. (Anurasannee & Wattanan, 2010).

For in the information on beef cattle farming in subdistricts, it is found that Puta village has the highest rate of beef cattle farming which is 424 cattle, which consist of 401 local cattle, 13 pure cattle, and 10 hybrid cattle. Besides, they do not raise beef cattle bread.

Subdistrict	Cattle Breed				
	Local Cattle	Pure Cattle	Hybrid Cattle	Beef Cattle	Total
Laharn	17	0	0	0	17
Laharn 1	164	0	0	0	164
Toongka 1	85	0	1	0	86
Puta	401	13	10	0	424
Kubaelipis	187	0	1	0	188
Tokmae	116	1	0	0	117
Salalukkai	51	0	5	0	56
Kadeng	132	0	5	0	137
Toongka	14	2	0	0	16

Source: Department of Livestock Development (2021)

For the abovementioned reasons, it is important to promote beef cattle production in three southern border provinces. Nevertheless, there is not an obvious production system, and the information about beef cattle farming, which is a career of farmers in Yi-ngo District, Narathiwat Province, is insufficient to consider the production system. Hence, this study will explore means to promote beef cattle farming to gather information for cattle farmers, supportive organizations, and related Department of Livestock Development in order to determine the guidance of beef farming production. As a result, farming can be the main job for farmers, so they can earn income to raise their family, making sustainability and self-reliance.

METHODS

Data Collection
The collected information was analyzed and arranged in accordance with the objectives and the frame of the study. Qualitative analysis and quantitative analysis were used in the study. Moreover, there are descriptive statistics, such as percentage, average, and SD which are calculated from beef cattle farming cost and the return of beef cattle farming. The calculated information was compared with production cost and the risk of investment in beef cattle farming of farmers in Laharn Subdistrict. The sample was randomized according to the theories of Kerejcie and Morkgan with a 95% confidence level (0.95) or a 5% error (0.5).

Result and Discussion

The result of the study of the farming system, farming cost, and return of beef farming in Laharn Subdistrict, Yi-ngo District, Narathiwat Province showed that:

General Information of the Target Groups of Beef Cattle Farmers

There are 175 beef cattle farmers who answered the questionnaires from a total of 316 farmers. Qualitative data were gender, age, education level, and occupation, while quantitative data were the average monthly main occupation income. The data is detailed as follows:

1) The data showed target groups classified by gender from compiling the data of beef cattle farmers. When data was generated, it found that a group of beef cattle farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, who answered the questionnaires are 175 males, which is 78 percent and 38 females, which is 22 percent (Table 4.1)

Table 4.1 The number of farmers answering questionnaires classified by gender

Gender	Number	Percentage
1. Male	137	78
2. Female	38	22
Total	**175**	**100**

2) The data showed the number of the target group classified by age. From the collected data, it was found that the beef cattle farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, who answered the questionnaires are a total of 175 farmers. There is a farmer aged less than 20 years which is 1 percent. There are 17 farmers aged 17-30 years which is 10 percent, 25 farmers aged 31-40 years which is 14 percent, 51 farmers aged 41-50 years which is 29 percent, 31 farmers aged 51-60 years which is 31 percent, and 26 farmers who 60 years up which is 15 percent (Table 4.2).

Table 4.2 The number of farmers answering questionnaires classified by age

Age (years)	Number	Percentage
Less than 20	1	1
20 – 30	17	10
31 – 40	25	14
41 – 50	51	29
51 - 60	55	31
60 up	26	15
Total	**175**	**100**

3) The data showed the target group classified by education level from the collected data. It found that the beef cattle farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, who answered the questionnaires are a total of 175 farmers. They were classified by their education level; 27 farmers do not get educated which 15 percent; 60 farmers finished their elementary level which is 34 percent; 25 farmers finished secondary school which is percent, 33 farmers finished high school or vocational certificate (Voc. Cert.) which is 19 percent, 14

farmers finished diploma or high vocational Certificate (High Voc. Cert.) which is 8 percent, and 16 farmers graduated in bachelor degree which is 9 percent (Table 4.3).

Table 4.3 The number of farmers answering questionnaires classified by education level

Education Level	Number (Person)	Percentage
Uneducated	27	15
Elementary School	60	34
Secondary School	25	14
High school/ Voc. Cert.	33	19
Diploma/ High Voc. Cert.	14	8
Bachelor Degree	16	9
Master or Higher Degree	0	0
Total	**175**	**100**

4) The data showed the target group classified by career from the collected data. It found that the beef cattle farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, who answered the questionnaires are a total of 175 farmers. They were classified by their career as follows: 102 people are agricultural workers, which is 58 percent; 6 people are government officers or government employees, which is 3 percent; 6 people are state enterprise officers, which is 3 percent; 3 people are students, which is 2 percent; 54 people are freelancers, which is 31 percent, and 3 people are traders, which is 2 percent (Table 4.4).

Table 4.4 The number of farmers answering questionnaires classified by education level

Job	Number (Person)	Percentage
Agricultural Worker	102	58
Government Officer or Government Employee	6	3
State enterprise officer	6	3
Student	3	2
Freelancer	54	31
Trader	3	2
Total	**175**	**100**

5) About the objectives of farmers's beef cattle farming in Laharn Subdistrict, Yingo District, Narathiwat Province, from the collected data, it showed that there are 175 farmers who answered the questionnaires. 168 farmers from all 175 farmers aim to feed beef cattle for selling which is 68 percent, while 80 farmers from 175 farmers raise for conservation and entertainment which is 32 percent. The farmers can choose more than 1 answer (Table 4.5).

Table 4.5 The objectives of beef cattle farming

Objectives	Number (Person)	Percentage
For selling	168	68
For conservation and entertainment	80	32
For competition	0	0

6) From the collected data, the cost of beef cattle in Laharn Subdistrict, Yingo District, Narathiwat Province, was found that from all 175 farmers, they have a cost of beef cattle farming differently according to the breed and the lifespan of cattle, which is young cattle to the grown cattle. It was detailed as follows; The cost of young indigenous cattle is 6,818 baht; The cost of young hybrid cattle is 7,615 baht; The cost of grown indigenous cattle is 15,698 baht; The cost of grown hybrid is 19,885 baht (Table 4.8).

Table 4.6 The cost of beef cattle breed

Growth Stage	The Cost of Beef Cattle for Each Breed	
	Indigenous Cattle	Hybrid Cattle
Young Cattle	6,818	7,615
Grown Cattle	15,698	19,885

7) The data of the cost of beef cattle production, housing and tools for raising of 175 farmers who answered the questionnaires showed that 175 farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, have costs of beef cattle production, housing, and tools, which were divided into fixed cost and variable cost as follows:

Table 4.7 The costs of housing and tools

Fixed Cost	Young Indigenous Cattle	Young Hybrid Cattle	Grown Indigenous Cattle	Grown Hybrid Cattle
Housing and Tools	600	1300	2638	2835
Depreciation in 5 Years	120	260	527	567

Variable Cost	Young Indigenous Cattle	Young Hybrid Cattle	Grown Indigenous Cattle	Grown Hybrid Cattle
Instant Food	0		20	20	20
Breed Cost	200		240	560	700
Roughage	0		0	960	1340
Mineral	15		24	24	36
Wage	1500		1200	1300	1500
Medicine	25		27	28	37
Water	75		60	60	60
Electricity	175		140	140	140
Fuel	75		60	60	60
Total	**2,065**		**1,771**	**3,152**	**3,893**

8) The collected data on the return of beef cattle farming of farmers in Laharn Subdistrict, Yingo District, Narathiwat Province, showed that there are 175 farmers who answered the questionnaires. The return of beef cattle is based on the breed, raising time, and life stage of cattle, which is young and grown, as follows (Table 4.8):

Table 4.8 Cost, price, and returns of beef cattle farming in average

Cost of Beef Cattle Breed	Returns of Beef Cattle Farming in Average			
	Young Indigenous Cattle	Young **Hybrid Cattle**	Grown Indigenous Cattle	Grown **Hybrid Cattle**
Fixed Cost	6,818	7,615	15,698	19,885
Variable Cost	120	260	528	568
	144	189	198	285
Total Cost (Baht)	7,082	8,064	16,424	20,738
Average Selling Price(Baht)	10,707	11,000	23,100	27,000
Profit	3,145	2,936	6,676	6,262

From the above table, it was showed that the profits of different beef cattle are different as follows: the average profit of young indigenous cattle is 3,145 baht; the average profit of young hybrid cattle is 2,936 baht; the average profit of grown indigenous cattle is 6,676 baht, and the average profit of grown hybrid cattle is 6,262 baht.

Conclusion and Suggestion

The conclusion of the guidance of beef cattle farming and returns of beef cattle farming in Laharn Subdistrict, Yingo District, Narathiwat Province, was conducted by interview and observation. The data was collected from farmers in Laharn Subdistrict, Yingo District, Narathiwat Province. 175 farmers from a total of 316 farmers had answered to the questionnaires. The result showed that; 1. Most farmers raise indigenous cattle which is 84 percent; 2. The cost of beef cattle farming was divided to 1) the cost of beef cattle breeds, which are young indigenous cattle, young hybrid cattle, grown indigenous cattle, and grown hybrid cattle in average of 6,818, 7,615, 15,698, and 17,885 baht respectively 2) the fixed costs which are 120 baht for young indigenous cattle, 260 baht for young hybrid cattle, 527 baht for grown indigenous cattle, and 567grown hybrid cattle in average 3) the variable cost which are 2,765 baht for young indigenous cattle, 2,805 baht for young hybrid cattle, 5,650 baht for grown indigenous cattle, and 6,180 baht for grown hybrid cattle in average; The total costs are 9,703 baht for young indigenous cattle, 10,680 baht for young hybrid cattle, 21,875 baht for grown indigenous cattle, and 24,632 baht for grown hybrid cattle in average. 3. The return of beef cattle farming could be summary that the income of the farmers is different as follows: 10,707 baht for young indigenous cattle, 12,800 baht for young hybrid cattle, 25,100 baht for grown indigenous cattle, and 28,500 for grown hybrid cattle in average.

Suggestions From the study of guidance, costs and returns of beef cattle farming in Laharn Subdistrict, Yingo District, Narathiwat Province, it shows that there are other models of farming in addition to the research. This will be beneficial for those who are interested in to further the study and to do research on beef cattle farming in other areas. Some of the data can be referenced for maximum benefit.

References

1. Anurasannee, T,. & Wattanan, C. (2010). Preliminary study: Cattle conditions: Local meat and market in Songkhla. Minutes of Agriculture of the Faculty Agriculture Khon Kaen University, between January, 25-26, 2010. Khon Kaen University 2010, 89- 91. (in Thai).
2. Binsuriya, A. (2016). Effects of Natural Beef Cattle Production System on Production Performance and Carcass Characteristics. Department of Animal Science, Faculty of Natural Resources, Prince of Songkla University.
3. Duanyai, S., Duanyai, S., Tanasoontornsit, W., and Suwannee, P. (2008). Natural Beef Cattle Farming. Department of Zoology, Faculty of Agriculture, Ubon Ratchathani Rajabhat University. Ubon Ratchathani Province.
4. Nuekraew, R., Pansoda, J. (2021). A Study of Native Cattle Raising Conditions and Satisfaction of Indigenous Cattle Farmers in Samut Songkhram Province. Department of Livestock Development of Samut Songkhram Province. Retrieve from: http://www.dld.go.th/pvlo_ssk
5. Office of Agricultural Economics. (2016). The Situation of Important Agricultural Products and Trends.
6. Saruamsiri, S., Silman, P. (2009). The Beef Cattle Farming System in Chaing mai Province. Thailand Research Fund (TRF), Bangkook. Retrieve from: https://goo.gl/XUsf52.
7. Wattanajan, C. and Angkoonseranee T. (2008). *Production Capacity and Carcass Characteristics Native to The South Under Free Farming System*. Thailand Research Fund (TRF), Bangkook. Retrieve from: http://www.oae.go.th/download/document_tendency/journalofec.
8. Wechkama, N., Chinnasaen, T. and Polwiset, W. (2017). The Production and Management of Beef Cattle as a housing farming and free farming of farmers in Borabue District, Mahasarakham Province. *Kaen Kaset 45* Special Edition 1. (p.1479-1480).