Challenges for Sustainability of Beef Cattle Production in Thailand

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Abstract

Thailand is a tropical country in Southeast Asia that generally has high temperature and high humidity. Climate changes directly and indirectly affect efficiency of beef cattle production. Changes in economic also affect opportunity and potential of beef cattle production. To identify the situation and challenges to sustain supplying ability and security of beef production in Thailand, the information gathered from 501 beef producers, 7 cooperatives, 6 companies, 7 universities, 1 association, and 4 government organizations through interview and discussion during the period from January 2015 to May 2015 were analyzed. The results indicated that 1,252,000 cattle were slaughtered in Thailand (2014), only 1% of them were sold for the premium market that consider high marbling beef, 40% of them were sold for the modern market that consider red beef, and the rest (59% of them) were sold for the traditional market. Forecasting indicated the decrease of slaughtering cattle from 1,252,000 cattle in 2014 to be 626,408 cattle in 2018, and it would be similar if the number of cows in the cow-calf production is kept at least 80% every year. Cattle in the premium and modern markets were crossbreds and intensively raised by members of beef cooperatives or business producers, while those cattle in the traditional market were native or crossbreds and traditionally raised by small holders. To sustain beef cattle production from the current situations, number of cow-calf production and fattening cattle need to be increased, knowledge and motivations of the farmers need to be improved, networks among groups of farmers or cooperatives should be developed, the appropriate laws and regulations need to be updated, and appropriate technology should be used to create chances in the business competition. These tasks need participation from all people related beef cattle production.

Keywords: cattle, sustainability, production, tropics

Introduction

Thailand is a tropical country in Southeast Asia. Climate in this country is controlled by two tropical monsoons (Northeast and Southwest monsoons). The weather generally has high temperature (28°C) and high humidity (74%). Changing of climate, especially increase of ambient temperature, has effect on stress of beef cattle, quantity and quality of roughage, tropical diseases, and insects. All of them affect the efficiency of beef cattle production especially the operation costs. Changes in economic and cost of living affect opportunity and potential of beef cattle production. Increasing demand and price for living cattle of the neighbor countries had been interested by most of Thai beef producers, which was 745,408 households in 2014 (Department of Livestock Development, 2014). The cheaper price of beef from outside the country had also be interested by consumers in Thailand. With these changes, number of living male and female beef cattle had been reduced dramatically every year. Thai producers suffered with many problems and obstacles to get enough profit from their beef cattle production. These evidences show the negative sign for sustainability of beef cattle production and they need to be solved. To identify the situation and challenges for sustainability of beef cattle production in Thailand, the information gathered from producers and other related people
and organization were analyzed. The summary of this investigation was sent to the Ministry of Agriculture and Cooperatives for further considerations.

Materials and Methods

Information gathered from interview and discussion with 501 beef producers, 7 cooperatives, 6 companies, 5 universities, 1 association, and 4 government organizations during the period from January to May 2015 (7 meetings) were analyzed. The number of slaughtering cattle and cow-calf production were forecasted from 2014 to 2018. Beef markets were classified based on character of beef. Cattle and farmers related to the market were characterized. Problems of beef cattle production and business were classified. Alternative ways to solve problems and challenges for sustainability of beef cattle production in Thailand were summarized based on agreement of participants in this investigation.

Results and Discussion

Commercial beef production in Thailand could be classified into cow-calf production and fattening parts. The aim of cow-calf production is to produce cattle for fattening, while the aim of fattening part is to produce finishing cattle for slaughtering. Cow-calf production part spent long time to produce a cattle for fattening (15 to 27 months), while fattening part generally spent from 6 to 15 months up to type of fattening cattle and the market, for finishing the production. With these differences, the cow-calf producers earned profit less than the fattening producers (Kankaew et al., 2012, Khemsawat et al., 2014).

![Figure 1. Beef markets and challenges for sustainability of beef cattle production in Thailand](image)

Beef markets in Thailand could be classified into 3 markets (Figure 1). The premium market considered beef with high marbling (intra muscular fat) and its price was increased based on increasing of marbling content. The fattening cattle for this market were crossbreds (e.g., Charolaise, Simmental, Limousin, Angus, and Wagyu) and they were raised intensively for 12 to 15 months. The modern market considered red meat (less marbling). The price of beef varied depending on age and tenderness. The fattening cattle in this market were crossbreds (e.g., Brahman, Angus and Beefmaster), but they were raised intensively just for 5 to 8 months. The traditional market usually not considered on neither marbling nor tenderness of beef. The cattle were from all kind of breeds (e.g., Thai native, crossbreds) including culled animals. Almost producers in the premium and modern markets were member of beef cooperative or business, while the producers in the traditional market were usually small holders. Price given for a slaughtered cattle from the premium and modern markets were based on quality of beef and its
body weight, while price given in the traditional market was based on general appearance of the cattle and negotiation between buyer and producer. Price given for a slaughtered cattle in the premium market was the highest, then the modern and the traditional markets, respectively.

In 2014, 1,252,000 cattle were slaughtered in Thailand (Office of Agricultural Economics, 2015). Based on sharing information among participants, only 1% of them (12,000 cattle) were sold for the premium market, 40% of them (500,000 cattle) were sold for the modern market, and 59% of them (740,000 cattle) were sold for the traditional market. Regarding to this, if the situations of beef cattle production are not improved, the number of cattle that could be slaughtered cattle in 2018 (626,408 cattle) would be only 50% of the number of cattle in 2014 (1,252,000 cattle). To keep the number of cattle that could be slaughtered in 2018 to be similar with the number in 2014, the number of cows should be kept at least 80% at all times, which it is impossible.

Problems of beef cattle production and business were discussed widely. However, they could be classified into 5 main categories. There were 1) shortages of beef cattle for all markets, 2) most farmers still lack the knowledge and motivation, 3) farmers’ group or beef cooperative still lack the strength, and inefficiencies in management and marketing, 4) laws and regulations are not up to date and not fairly enforced, and 5) Thai producers still lack of ability to compete with overseas markets. These problems need to be solved as soon as possible and all of them should be concerned at the same times. Thus, to sustain beef cattle production from the current situations, 1) the number of cow-calf production and fattening cattle need to be increased enough for supporting the markets, 2) knowledge and motivations of the farmers need to be practically improved, 3) networks among groups of farmers or beef cooperatives should be developed and they should be well trained for the business, 4) laws and regulations need to be updated, they should support the business, and fairly enforced, and 5) appropriate technology should be used to increase efficiency of beef cattle production and create chances in the business competition. Furthermore, the premium and modern markets should be expanded with the improvement of beef cattle and technology for fattening. Cow-calf producers and number of high quality cows should be increased for stability and sustainability of beef cattle production in Thailand.

Conclusion

Challenges for sustainability of beef cattle production in Thailand are to solve 5 main problems categories. Participation from all people related beef cattle production are needed.

References


