Duck Farming System in Irrigated Areas of Northeast Thailand

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Place of fieldwork: Thailand
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- Research Background

The duck is the poultry type bred traditionally in most Asian countries.

Thailand, however, chicken production has already been automated, although duck farming is still carried out by small farmers. However, few studies have investigated the duck farming system in Thailand.

Following the Avian Influenza (HPAI) pandemic, attention was focused on the duck farming system in central Thailand because there is an area where HPAI outbreaks have occurred.

Picture 1: Ducks on a duck farm

On the other hand, in Northeast Thailand (NET), ducks have not been infected with HPAI, and the farming system there is not yet known widely.

- Research Purpose and Aim

Exploring the farming system in NET may contribute to a greater understanding of how HPAI outbreaks can be prevented. In addition, it may assist in the maintenance and improvement of production systems by small farmers elsewhere.

There is a fourfold purpose to my study:

1. Characterizing the farming system of individual duck farmers
2. Characterizing the farming system of the entire village under study
3. Clarifying what the features of duck farming in the village under study are in comparison with previous studies
4. Clarifying what the constraints of duck farming in the village under study are in comparison with previous studies

In this study, I selected irrigation areas where duck farmers practice duck farming on a sufficient large scale for comparisons.

- Results and Achievements by Fieldwork

In village studies, ducks were raised on a free-range basis originally. Twenty years ago, as agricultural modernization were increasingly progressed; releasing ducks into paddy fields became more difficult. Now,

there are two farming system types in the village, the “full stationary” one and the “stationary and shifting” one.

Farmers who practice the shifting method have to devote more time and family labor to the technique than the stationary one, because monitoring is necessary when releasing ducks.

Picture 2: Duck farm (stationary)

Picture 3: Duck farm (shifting)

※At night, a net is used to turn this into an “enclosure”

The advantage of the shifting technique is the saving on feeding costs. The cost of commercial feed accounts for half of the revenue obtained from duck egg sales.

The “full stationary” technique can be further divided into “continued” and “intermittent” systems. The difference between these systems comes down to proximity to the village pond, which has a permanent water supply.

Farmers using the “intermittent” system live far from the pond. At times, there is an inadequate water supply for feeding ducks and then these farmers have to stop duck farming temporarily.

Picture 4: Ducks on the move before sunset

- Implications and Impacts on Future Research

My study revealed that water, feeding, and labor are important elements for duck farming. Further investigation is required, and I should focus more to these three topics.

In NET, about 80% of farmland depends on rain-fed conditions, so my study site comes under the special agro-ecological area.

Therefore, a major question is the extent to which my findings can generalize to the duck farming system in NET. Research have to be conducted in rain-fed areas and the findings be compared to those of irrigated areas.

This will contribute to the development of an understanding of the generalized farming system in NET and highlight the characteristics of the techniques used in irrigated areas.

Picture 5: Farm pond in the dry season