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Small scale swine raising in Cambodia

Sann Vathana^a, Kroesna Kang^a, L. Chhum Phith^a and U. ter Meulen^b

- a Faculty of Animal Production and Health, Royal University of Agriculture, Phnom Penh, Cambodia.
Email: uv855001@mobil.com.kh
- b Institute of Animal Physiology and Animal Nutrition, Department of Tropical Animal Nutrition,
Georg-August-University, Kellnerweg 6, 37077 Göttingen, Germany.

Abstract

After a long period of political changes rice is still the main product of the peasant Cambodian farmers, although swine production on family scale continue as an important side line. Industrial pig production barely appears in some cities. Swine population in Cambodia is divided into two kinds: local and exotic breeds. The advantages of local breeds are climate and disease resistance, proliferation and unselectively eating. Serious disadvantages are slow growth and bad ham quality. Exotic breeds have the opposite advantages and disadvantages. Swine raising systems depend upon the favourites of farmers, possibilities, working time, feed resources and the patience of people. Raising systems are: uncontrolled i.e., moving free in the village, yard, tethering and housing systems. Every system have their own pros and cons. The swine feeds vary according to availability, cost, region, raising plan and raising system. The feed consists mainly of local grown plants of which the feed values are either not yet determined or not known in the villages. Concentrates are barely used. The main feeds used are rice and its by-products, fermented rice, corn, soybean and its by products, molasses, fish meal, water convolvulus (*Ipomoea aquatica*), water lettuce (*Pistia stratiotes*), banana (*Musa balbisiana*) and other forages, waste fruits and vegetables and the kitchen waste. Swine diseases and parasites are responsible for serious losses every year. Due to shortage in vaccination, disease prevention and control the swine are susceptible. Disease prevalence varies from season to season. The swine raising techniques among the Cambodian farmers are fairly simple due to the low level of knowledge. Surveys of the present situation are made to identify the major shortages. Based on these, practicable suggestions can be made for improved production practices and extension staff educated accordingly.

Introduction

The Kingdom of Cambodia is located in South-east Asia and has a tropical climate. It is always warm to hot in the lowlands, with temperatures seldom below 27°C. The rainy season comes with the summer monsoon, which lasts from May through October. The monsoon normally brings 1300 to 2000 mm of rain in the lowlands and about twice as much in the south-western mountains. Of the approx. 10 mill. population 79 % live in rural areas. 65% of the Cambodians are illiterate. Three quarters of Cambodia's 181,035

square kilometre consists of tropical evergreen forests, and only about a fifth of the country area is used for meadow, pasture and agriculture. Main cash crop is paddy rice which is grown by 85% of farmers. Other products are sugarcane, bananas, cassava, sweet potatoes, maize, oranges, rubber, mangoes, soybeans, tobacco leaves and different tropical fruits. Cattle and water buffalo are kept principally as draft animals in the rice paddies and fields. Hog production has also played a large role in agriculture. Although there were many changes of regimes, pig raising on family scale was still continued. Industrial pig production rarely appears near some cities. Efforts to replenish the number of livestock-depleted by years of war have been hampered by uncertain social conditions and the prevalence of animal diseases.

The swine breeds

The swine population in Cambodia consists of Local and Exotic Breeds (Chea, 1999). Local breeds are Kandol, Damrey, Kampot and Hainam. The advantages of local breeds are climate and disease resistance, proliferation and unselectively eating. Serious disadvantages are slow growth and bad ham quality. The three main exotic breeds are: Yorkshire, Landrace and Duroc. Hampshire disappeared during the civil war in 1970s. Exotic breeds have the opposite advantages and disadvantages.

Swine raising situation

More different raising systems are traditionally used: Uncontrolled, yard, tethering and different housing systems (TTC, 1996). Which method a farmer choose depend upon the favourites of farmers, possibilities, working time, feed resources and the patience of people.

The uncontrolled system

The movement of the animals is not controlled. Swine are permitted to graze freely in the village. Generally, small amounts of feed are given to them when they come back home in the evening.

The yard system

Several pigs are raised on half of the yard. The other half is used for plantation or garden. After harvesting, the areas are changed. Along the border of each side, fruit trees are planted. This system is not generally practiced.

The tethering system

The swine are collared and tethered with a long string to a pole, either under the house, a tree or the crop store room. The farmers don't build a pen for them.

The pen systems

Common for these systems are, that the pigs are all confined in pens and fed regularly by the farmers. These systems are only practiced by farmers who keep swine as a main income source. The pen structures used depend on numbers of animals, raising system and the available material which give a wide variation. The pen can be build beside or behind the house or anywhere where there is place. Simple equipment such as bamboo, wood planks, palm leaves or grass is used to build the pens (Chin, 1998). Mainly two types are distinguishable: yard and house raising systems.

The yard systems

The non-roof pen is built under broadleaf trees. Generally, it is based directly on the ground. The farmers use bamboo or any old wood to make the gate. Problems might occur when it rains and get wet.

The house system

In some villages the farmers trained by different NGOs build pens with roof, a simple house raising system. If the pen is built on ground level the floor is prepared to incline to the outside. Otherwise the pen might be built with a wooden floor above the ground. The roof is made from palm leaves or grass and the walls are made from old wood. The general size of this type of pen is 2m×2.5m for four barrows (8-28 weeks old) or a sow and her litter. The size depends on the alternative utilization of farmer's land.

Feed and feeding

The swine feeds vary according to availability, cost, region, raising plan and raising system. Generally, local grown plants are fed. Concentrates are barely used. Some farmers might know the nutrient requirement of swine, but the nutrient content of the feeds fed are not known in the villages or for many feeds they give to the swine the feed value is still not researched. Following seasons the feed is changed depending on available sources. The main feeds used to feed swine are rice and its by-products, fermented rice, corn, soybean and its by-products, molasses, fish meal, water convolvulus (*Ipomoea aquatica*), water lettuce (*Pistia stratiotes*), banana (*Musa balbisiana*) and other forages, waste fruits and vegetables and the kitchen waste. Many farmers boil the feed and also the waste before feeding it to the pigs. Some time, swine might starve due to flood or drought problems.

The swine diseases

Swine diseases and parasites are responsible for serious losses every year. It is estimated that two third of piglets are stunted or die before weaning. The shortage in vaccination, disease prevention and control is the reason why the swine are susceptible. For treatment, both natural medicine and modern drugs are used. According to Chea (1999) there are a large numbers of infectious and parasitic diseases of swine. Their prevalence generally varies from season to season. Important swine diseases in Cambodia are Swine Fever, FMD, Swine Erysipelas, Salmonellosis, Diarrhoea and Anaemia. The most common diseases are due to parasites. Some of the cattle diseases such as Anthrax, Blackleg and Pasteurellosis always prevail in the swine herds in the break up region.

Extension

As described above, the swine raising in Cambodia is a low technology production. Surveys of the present situation are made to identify the major shortages. Based on these, suggestions are made for instance on testing feed quality and artificial insemination. Though with a lot of difficulties, achievements are reached and experiences collected.

Conclusion

The swine raising among the Cambodian farmers is an extensive production. Most of their techniques in raising are fairly simple according to their low level of knowledge. Production is decreased due to natural factors, technical and social problems and the shortage of government intervention. The results of research work are barely informed to the farmers. In addition, the knowledge of graduated students is limited. The poverty

of Cambodian, one of the social factors, is a main problem which impair improved swine raising practices. In times of disease prevalence, swine are strongly threatened due to shortage of vaccination and protection. In addition the nutrient requirement of swine cannot be met. In order to solve these problems, an improved extension based on increase of students' knowledge is a main step. After that, an intervention of the government at the proper time can help to overcome the crisis in swine production.

References

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