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Faculty of Agricultural Sciences

Institute of Agricultural Sciences in the Tropics and  
Subtropics (Hans-Ruthenberg-Institute)

Animal Breeding and Husbandry in the Tropics and  
Subtropics



How can food security and income diversity of smallholder  
farmers in the Philippines be improved by organic pig production?

Master Thesis

Agricultural Sciences in the Tropics and Subtropics

by

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## Summary

This thesis assessed the impact of the extension service that is provided by the governmental breeding farm of the National Swine Research and Development Center in Tiaong, Philippines. Backyard farmers receiving indigenous breeding sows in Tiaong were compared to farmers raising so-called exotic sows. Furthermore, pig management practices and performance of native sows was compared to so-called exotic sows in the four municipalities of the province Quezon. The target municipalities were Infanta, Mulanay, Lopez and Tiaong.

Data was gathered by structured face-to-face interviews. The information collected by the questionnaires was summarized in the Organic Livestock Proximity Index. The index was for the first time applied in a tropical context considering pig production. It provided information on the approximation of farming systems to the organic regulations. Moreover, it helped to identify sections of the farm that would have to be changed for a conversion from conventional to organic farming.

The performance of native sows was found to be not clearly inferior to the performance of non-native sows. The lower body weight of the native pigs in combination with the same kilogram price led to a lower income from pig production of native pigs. No price premium for specialty pig products was paid at the farm gate that could cope this. Contrary to that, the variable costs of native pig production is lower than of non-native pig production. Moreover, the costs for the construction of housing were higher for exotic pigs. Labor requirement for feeding was lower for non-native pigs and time for cleaning the pens was higher for non-native pigs.

In general, the degree of compliance to the organic standards was higher for native pig keepers. But both farmer groups showed potential for improvement regarding the overall sustainability. Sections that were found to be improved are nutrition, crop-livestock integration, marketing and animal welfare.

The establishment of a horizontal marketing scheme to support smallholder native pig farmers and help them to access the markets and achieve a higher price at farm gate is highly recommended.