

Native Pig Genetic Resources Improvement and Utilization in the Context of Industry Building, Product Development and Environmental Protection

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Native or indigenous pigs are among the most prominent features in small farm landscapes. Over the years, these pigs provide economic, social and cultural benefits to rural communities. Being products of natural selection, they develop unique morphological characteristics and behavioral patterns that enhances their fitness to the natural environment. They are also known to have relative resistance to diseases and parasites, and are more resilient to extremes of weather. These characteristics enable the native pigs to survive and reproduce even with minimal management intervention. Moreover, these pigs produce meat with unique taste and texture that makes it the best raw material in the processing of ethnic delicacies that are preferred and paid premium prices by consumers.

Owing to the native pigs' adaptation to the natural environment, cash capital and technological requirements to produce them are low compared to their commercial hybrid counterparts. Thus, small and often financially challenged farmers are able to participate in the production and build sustainable livelihood from these pigs. Furthermore, being part of the community's farming or food production culture, meat of these pigs is often used in the preparation of specialty products that are offered during festivities and cultural rituals. However, the potentials of native pigs in generating sustainable income for farmers and in building sustainable enterprises are yet to be realized.

Production of native pigs is commonly accomplished following free range or extensive management systems. This system is expected to sequester more CO₂ if these pigs consume more forages and minimize carbon emission when it is returned to the soil thru the feces. This practice of native pig production fits well with the framework of "regenerative agriculture" that is considered as environment friendly food production system.

Current R&D initiatives related to the conservation, improvement and utilization of native pigs are focused on 1) selection and breeding in favor of specific traits that enhances productivity, production efficiency and product quality; 2) assisted reproduction in support of hastening the multiplication and distribution of desired traits; 3) product development and 4) policy studies in support of marketing and sustainable native pig production.

Outputs of these R&D initiatives are expected to drive native pig production to becoming a dynamic sub-sector of swine industries in pork producing countries.

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