

Challenges of Korean organic rice farming – practices, economic performances and implications from the case study of Jeonnam province

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EFA production systems have through necessity resulted in the development of innovative practices for weed, pest and diseases control, for example, using ducks and snails for weed control in paddy fields. These practices began to be introduced in the early 1990's and the techniques have become more popular and have been adapted to suit regional conditions.

In this study, the production practices, productivity and economic performances of organic and non-chemical rice farming adopting ducks and snails for weed control were compared. In the production practices, Korean organic and non-chemical farming seem to have several concerns in terms of sustainability. It comprises lack of resistant variety use and rotational cropping system as well as high dependency upon external inputs such as organic fertilizer and farming materials for pest control. The production level of organic farming is approximately similar level but 20% higher income than non-chemical farming, while, when it was compared with conventional farming organic farming showed 20% lower productivity but 20% higher income. Organic farming shows 15% to 18% higher profits than non-chemical farming as the snail-using organic farming tends to have higher income and lower input costs than duck-using organic farming. This may encourage more farmers to convert to organic production using these techniques than simply non-chemical farming in the future. This organic conversion could be more promoted by policy intervention. However, it may result in increased supply and therefore decreased prices for organic rice in the long term unless further market demand occurs. Balanced policy measures considering production as well as marketing and consumption are urgently required for the sustainable development of organic farming.

Key words: rice, organic, non-chemical, environmentally friendly agriculture

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