

# Profit Structures of Organic and Environmentally Friendly Rice Farming Methods in Japan: Evidence from Farm-Level Data

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## Summary

This study aims to reveal the profit structures of organic and environmentally friendly rice farming in Japan. Specifically, it compares the profit structures of rice farming on paddy farms with organic, environmentally friendly, and conventional rice farming methods to test working hypotheses based on previous research. Inverse-probability-of-treatment weighting combined with generalized boosted models was applied to estimate the propensity score weights of a sample of paddy farms collected from the Farm Management Survey. Results showed that organic farms have a higher unit value of rice compared with conventional farms; however, they also incur higher expenditures. Conversely, environmentally friendly farms have a high unit value of rice; however, their expenditures are not higher. Nevertheless, the results indicated that the profit structures, particularly in organic farms, differ across farm scales and locations.

Key words: rice farming, organic farming, environmentally friendly farming, profit structure