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**Japanese Apples in Taiwan as a substitution  
market: The demand-system analysis**

by Aki Kudo, Kumar Bhatta, and Yasuo Ohe

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Title:

Japanese Apples in Taiwan as a substitution market: The demand-system analysis

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Abstract:

Japanese apple is recognized as high-quality, which may give the high income for farmers, but it needs extra care, and the aged apple farmers already reached their limit. Due to the shrinking domestic apple market, the Japanese government has been trying to export apple to improve the farmers' income. Therefore, this study aims to investigate Taiwan as a substitution market for Japanese apple.

We analyzed the import data published by the Agricultural Committee of the Taiwan government for 16 years starting from 2002-2017. Specifically, we used total import quantity and import value for six different countries, i.e., Chile, Japan, USA, South Korea, New Zealand (NZ) and others and analyzed by Rotterdam and DAIDS methods. The elasticity estimation results showed that the Japanese variety was not substitutable for the American and Korean apple, whose shipments peaks at the same time. However,

Rotterdam's estimation results showed a substitution relationship with Chilean and NZ apples from the southern hemisphere. No alternative relationship between USA and Korean products were observed in both models. Although Japanese apples can be shipped all year round due to high storage technology, a marketing strategy that considers cost of storage and local competition in the exported countries is necessary.

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