The Economic Assessment of the Agrometeorological Information Extension Services: Examples of Four Farmers' Associations*

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This study conducts a survey to reveal the farmers' evaluation of meteorological information and how agrometeorological extension and education activities can improve the value of it. Using the Contingent

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Valuation Method (CVM), a questionnaire survey of 420 farmers in four farmers' associations (including Qionglin, Hsinchu County, Zhutang, Changhua County, Meinong, Kaohsiung City, and Ji'an, Hualien County) was conducted in 2019 to obtain the baseline data of the farmers' subjective evaluation and their willingness to pay (WTP) of meteorological information. The agrometeorological information extension and education activities were then held for these four farmers' association in 2020. Farmers growing specific vegetable and fruit crops were selected as the experimental group and provided with agrometeorological information extension and education activities, while farmers not joining these activities were viewed as the control group. In 2021, we revisited these four farmers' associations, conducting a questionnaire survey again and collecting 263 questionnaires in the end. Based on the survey results in 2019 and 2021, the farmers' subjective evaluation of meteorological information (including accuracy score and the degree of impacts on crop production) before and after the extension and education activities can be compared. The results reveal that the WTP of farmers in the experimental group are 12 to 51% higher than the WTP of those in the control group. It is also shown that the economic value of the agrometeorological information extension and education activities is about NT$1,175.9 per person per year. This economic assessment can not only verify the potential value of the extension and education activities but also act as a helpful tool for the public sector to evaluate the extension and education activities and determine whether the activities should continue in the future.

***Keywords**: weather information service, economic assessment, contingent valuation method, agrometeorological information*

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