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ANALYSIS OF THE FACTORS DETERMINING THE AGRICULTURAL ENTERPRISES' FOLLOWING IRRIGATION TECHNOLOGIES: CASE STUDY OF ŞANLIURFA, TÜRKİYE

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Abstract

In this study, the factors that determine the probability of following improved irrigation technologies such as drip and sprinkler systems of agricultural enterprises in Harran and Yaylak irrigation areas within the scope of Şanlıurfa GAP/Türkiye irrigations were examined. The research data were obtained through surveys conducted with face-to-face interviews with agricultural enterprises operating in Şanlıurfa. The ordinal logit regression model which used for the analysis was significant at the $p < 0.01$ error level. According to the results, non-farm income, membership to a producer organization, age group, and land size variables were significantly related to the potential adoption of improved irrigation technologies. Other variables, such as the education level, farm income, duration of experience, and agricultural loan use were not statistically significant. The probability the enterprises in the Yaylak area following the improved technologies was higher than that in the Harran area. That the enterprises have non-farm income negatively affected the probability of following improved irrigation technologies whereas the membership in producer organizations was found to increase the probability. There was a negative relationship between the probability and the age groups. The probability of following improved technologies was found to increase with the area of land owned by agricultural enterprises. This study thus provides a perspective for water-saving against water scarcity by increasing the marginal productivity of water, reducing the long-term average input costs of agricultural enterprises, as well as for developing new strategies and coherent policy recommendations concerning the sustainability of agricultural production.

Key words: improved irrigation systems, GAP/Türkiye, ordinal logit analysis, sustainability, water scarcity

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