Analysis of Mechanisms Affecting Conservation Agriculture in Order to Optimize Water Management of Irrigated Wheat Farmers in Kermanshah Province

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Abstract

The purpose of this research was to analyze the mechanisms affecting conservation agriculture in order to optimize the management of agricultural water in irrigated wheat fields of Kermanshah province. A qualitative and quantitative research method was applied in order to identify the mechanisms affecting conservation agriculture. In the qualitative section, 45 influencing mechanisms were identified by using content analysis method. In the quantitative part, factor analysis was used and the identified mechanisms in the qualitative section were categorized. Target population of this research consisted of 2000 wheat farmers in Kermanshah province, among whom 322 people were selected by simple random sampling method. The data were collected and analyzed by using a questionnaire, whose face and constant validity was evaluated by the faculty members and experts; and its validity was obtained as 0.89. The results of the analysis of the mechanisms led to the identification of eight effective factors in conservation agriculture and water resources management. The factors were supportive factors, educational and extension factors, provision of infrastructure, national and local culture, policy and planning, institutional factors, research and development, and monitoring and evaluation, respectively. These factors were able to explain about 84% of the variance of the total mechanisms of conservation agriculture for optimal agricultural water management.

Keywords: Kermanshah province, Qualitative and quantitative research, Policy and planning, Infrastructure

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