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AN APPLICATION OF THE AHP METHODOLOGY TO THE EVALUATION OF RISK FACTORS IN AGRICULTURE

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ABSTRACT

Risk has several dimensions or variables in the agriculture industry, and prioritizing them may help with decision-making. Knowing the significance of these risk variables for various agricultural operations, as well as how they vary by geographic zone, is, on the other hand, useful knowledge for agricultural growth. The goal of this research was to identify the most important risk factors for farmers in Central South Chile. Climate, pricing and direct cost fluctuation, human factor, and commercialization were all utilized to create a decision structure using the multi-criteria Analytical Hierarchical Process (AHP) approach. Overall, the findings revealed that there are no significant discrepancies in the weightings of various risk variables. The most significant component (0.30) was price and cost fluctuation, whereas the least important element was climate (0.20). It also verified that the weightings derived for the various risk variables had geographical variations, resulting in different risk ratings for the various agricultural activities depending on geographic area.

KEYWORDS: AHP, Analytical Hierarchical Process, Multi-Criteria Decision, Risk Analysis.

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