

Agricultural Insurance of Climatic Indices-based: An Effective Tool on Agricultural Risk Management in Iran

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Abstract:

With attention to challenges and difficulties from traditional agriculture insurance programs ,such as high implementation costs and challenges of unfavorable selection and moral hazards, percent and providing the best and favorable insurance pattern, can assume the most important status in subjects related to the management of risk and agricultural insurance products.

Therefore, In this research paper , the implemented program for agricultural insurance products being presented based on climatic indices for dry land wheat product in city of Maragheh because of its equal area condition in eastern Azerbaijan province .

In this regards, collection of information on product performance between 1988-2008 years from Dryland agricultural institute (DARI)and also information on temperature and precipitation in the same years from metrological stations has been gathered .we, with attention to frequently used copula function in methodology of multiple risk factors ,and dependent structure between climatic indices and product performance with utilization of Archimedes' copula function had studied them, drought index because of having most dependent with product performance being selected. All calculations of premium amounts has been done by using copula functions and regression model and also structure of indemnification being described .

With attention to the results , volume of premium amount and indemnification amount that has been calculated from premium insurance of current program on Maragheh area , is greater which in return has in itself more potential possibility for greater indemnification in climatic index-based insurance program.

Keywords:

Premium insurance, Agricultural products insurance , climatic indices, Risk , Archimedes' copula function ,product performance , Wheat , City of Maragheh

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