

## **HEDGING INVOLVING AGRICULTURAL COMMODITIES: A SYSTEMATIC REVIEW OF LITERATURE**

### *HEDGING INVOLVING AGRICULTURAL COMMODITIES: A SYSTEMATIC REVIEW OF LITERATURE*

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#### **Comunicação:**

O XIII SINGEP foi realizado em conjunto com a 13th Conferência Internacional do CIK (CYRUS Institute of Knowledge), em formato híbrido, com sede presencial na UNINOVE - Universidade Nove de Julho, no Brasil.

## **HEDGING INVOLVING AGRICULTURAL COMMODITIES: A SYSTEMATIC REVIEW OF LITERATURE**

### **Objetivo do estudo**

The disconnect between spot and derivative prices, particularly in futures markets, presents significant challenges for hedging strategies in agricultural commodities. This study aims to identify and synthesize key areas and dimensions of hedge effectiveness using a systematic literature review.

### **Relevância/originalidade**

Through a systematic review, this study delivers a comprehensive map of hedge-effectiveness scholarship. The proposed agenda guides academics, exchanges, and regulators toward research and product innovation that can enhance risk management in increasingly volatile agricultural commodity markets.

### **Metodologia/abordagem**

We extracted 66 articles (2015-2024) from Web of Science and Scopus. Content analysis classified studies by market context, hedge instruments, model families, and evaluation metrics, identifying conceptual gaps and methodological frontiers.

### **Principais resultados**

Futures contracts dominate the literature, while cross-hedging and OTC such as swaps receive little attention. Multivariate GARCH variants account for 38% of model usage; AI and machine-learning applications appear in fewer than 4% of studies. Fuel represents primary environmental and pricing topic.

### **Contribuições teóricas/metodológicas**

This article advances theory by linking hedging in agricultural commodities to Modern Portfolio Theory and the Law of One Price, and methodologically contributes a PRISMA-based systematic review with a six-category classification framework, mapping econometric techniques and research gaps.

### **Contribuições sociais/para a gestão**

The article contributes socially and managerially by highlighting hedging's role in stabilizing agricultural markets, guiding producers and policymakers in emerging economies, stressing logistics and fuel risks, and encouraging development of tailored derivative products to improve risk management, efficiency, and value preservation.

**Palavras-chave:** Agricultural commodities, hedge effectiveness, systematic review, futures

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### **Study purpose**

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### **Relevance / originality**

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### **Methodology / approach**

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### **Main results**

Futures contracts dominate the literature, while cross-hedging and OTC such as swaps receive little attention. Multivariate GARCH variants account for 38% of model usage; AI and machine-learning applications appear in fewer than 4% of studies. Fuel represents primary environmental and pricing topic.

### **Theoretical / methodological contributions**

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### **Social / management contributions**

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**Keywords:** Agricultural commodities, hedge effectiveness, systematic review, futures