

Scopus AI

由負責任的 AI 支持值得信賴內容

Scopus AI - 您的動態 GenAI 驅動的研​​究夥伴，為您的研究之旅增添力量。透過值得信賴的指引，您可以更快速地瀏覽人類龐大的知識領域，提升您的理解力、豐富您的洞察力，並改變您的整體研究體驗。



Scopus AI 如何運作

- 查詢與結果** - 輸入您的自然語言查詢開始。Copilot 使用關鍵詞和向量搜尋工具來優化對複雜查詢的回應，以提供精確的答案，並可接受非英語語言的查詢。最後生成一個簡單易懂的 **Summary**，以及 Scopus 參考文獻，以提供額外的透明度和信任度，您可再使用 **Extended summary** 深入挖掘。
- Concept Map**：以概念地圖呈現關鍵字與其關聯，展現隱藏的關聯性和見解。
- Foundational documents**：快速找出對您的主題最有影響力（高被引）的論文。
- Topic experts**：尋找該領域的頂尖專家，並提供與您的查詢相關的專業知識說明。
- Emerging themes**：幫助發現相關既有、新興趨勢與新穎主題。
- Go deeper**：相關深入查詢以發現新的觀點。

1 氣候變遷對咖啡生產構成什麼威脅？

氣候變遷對咖啡生產構成什麼威脅？

Hide Copilot steps ^

- Creating plan to answer your query
- Performing natural language search:
 - What threats does climate change pose to coffee production?
- Performing keyword search:
 - ("climate change" OR "global warming" OR "climate variability" OR "environmental change") AND "coffee production" AND ("threats" OR "challenges" OR "risks" OR "impacts")
- Generating summary

Summary

Threats of Climate Change to Coffee Production

Climate change poses significant threats to coffee production, impacting both the yield and quality of coffee crops. Here are the primary threats:

- Rising Temperatures:** Increased temperatures can surpass the optimal range for coffee growth, particularly affecting Arabica coffee, which thrives best at cooler temperatures. This can lead to reduced yields and quality [1](#) [2](#) [3](#).

To mitigate these threats, several adaptation strategies are being explored:

- Agroforestry:** Integrating coffee cultivation with other trees can help buffer against temperature extremes and improve resilience to climate variability [1](#) [2](#).
- New Coffee Varieties:** Developing and planting more resilient coffee varieties that can withstand higher temperatures and resist pests and diseases [1](#) [2](#).
- Improved Water Management:** Techniques such as better soil and water management can enhance water use efficiency and help coffee plants cope with changing rainfall patterns [2](#).

These strategies, while promising, require significant investment and support from governments and stakeholders to be effectively implemented [2](#) [3](#) [5](#).

Expanded summary

Based on the user's query, I will provide a summary that addresses the environmental impacts of climate change on coffee production, the effects of climate change on the quality of coffee beans, the economic implications of climate change on the coffee industry, and the adaptive strategies for coffee farmers to mitigate the effects of climate change.

Environmental Impacts of Climate Change on Coffee Production:

- Recent climate change models predict that coffee production and the livelihood of millions of farmers will be significantly affected by climate change [1](#).
- Climate change, characterized by increasing temperature and rainfall variability, is expected to reduce the bio-climatic suitable areas, growth, and yield of coffee, and induce the occurrence of pests and diseases [1](#).
- Farmers have implemented site-specific adaptation strategies to minimize the detrimental effects of climate change, including selecting appropriate shade tree species, soil fertility maintenance, and pests and diseases management [1](#).
- The most common adaptation measures used by farmers include the planting of trees and increased use of agrochemical inputs in response to perceptions of increasing temperatures [3](#).
- Access to weather forecasts, fair market, and technology, as well as improving farmers' adaptive capacity to climate change, are crucial for sustaining coffee productivity [1](#).

In conclusion, climate change poses significant environmental, economic, and quality challenges for coffee production. However, adaptive strategies such as site-specific adaptation measures and access to resources can help mitigate the effects of climate change on coffee production and support the sustainability of the coffee industry.

Show all 5 references

Do you find this expanded summary more helpful than the original summary? Yes No

2 Concept map

```
graph LR; A[Climate Change Impact on Coffee Production] --- B[Quality of Coffee]; A --- C[Crop Yield]; A --- D[Pest and Disease Incidence]; B --- E[Aroma]; B --- F[Flavor Profile]; C --- G[Water Availability]; C --- H[Temperature Extremes]; D --- I[Distribution]; D --- J[Proliferation]
```

3 Foundational documents

355 citations

A bitter cup: climate change profile of global production of Arabica and Robusta coffee

C., Bunn, Christian, P.R., Läderach, Peter Roman, O., Ovalle-Rivera, Oriana, D., Kirschke, Dieter

Climate Change > 2015

Show more documents

4 Topic experts

Gallemore, Caleb Tyrell C.T.

450 citations 2 matching documents 15 h-index

Caleb Tyrell Gallemore is an expert in the effects of projected rising temperatures and vapor pressure deficit on Arabica coffee production. Their recent publications offer empirical insights into the specific threats posed by these environmental changes to coffee production in Tanzania's Mbinga district, contributing to a deeper understanding of the challenges faced in this region.

Preview profile

5 Emerging themes Beta

Adaptation Strategies for Coffee Production in Response to Climate Change Rising Theme

The rising interest in adaptation strategies for coffee production in response to climate change indicates a growing focus on developing and implementing methods to mitigate the adverse effects of climate variability. This includes exploring new agricultural practices, breeding climate-resilient coffee varieties, and utilizing technology to optimize coffee farming.

Show references

Potential Hypotheses:

- Implementing agroforestry systems in coffee plantations enhances resilience to climate change by providing shade and improving soil health
- Breeding and cultivating drought-resistant coffee varieties can sustain coffee production in regions experiencing reduced rainfall due to climate change

6 Go deeper

- How does climate change affect the quality of coffee beans?
- What are the specific regions most at risk for coffee production due to climate change?
- How do different coffee varieties respond to changing climate conditions?



什麼是 Scopus AI ?

Scopus AI 是由生成式人工智慧 (GenAI) 驅動的直覺式智慧搜尋工具，能以前所未有的速度和清晰度提供洞察力。

Scopus AI 已整合至 Scopus 網站，可協助不同學科的早期學者和研究人員瀏覽和理解學術內容。幫助使用者理解未曾接觸過的學術領域，促進進一步探索。

值得信賴的研究概述

Scopus AI 會在 Scopus 文獻摘要中搜尋與您查詢相符的詞彙，並在幾秒鐘內將這些關鍵內容綜合成易於理解的概述。

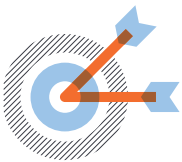
與其他 AI 工具不同的是，我們先進的提示工程限制了產生幻覺的風險—或由 AI 產生的錯誤資訊。我們先進的提示工程，同時結合 RAG fusion 技術，可從全球最大的科學文獻資料庫中挖掘值得信賴且經過驗證的知識，產生全面且具洞察力的概要，確保您獲得最可靠的答案。

Scopus AI 如何確保資料隱私？

當我們將生成式人工智慧嵌入 Scopus 時，我們將根據我們的**負責任 AI 原則**和**隱私原則**與我們的社群合作，以確保我們的解決方案能幫助他們實現目標。

我們的 LLM 使用是私密的。這表示我們不會交換資料或使用我們的資料來訓練大型語言模型。這是我們導入的重要特點，讓資料發行機構和作者享有隱私並安心使用。

為何選擇 Scopus AI?



高準確度：Scopus AI 的嚴格規範可將幻覺（不正確或捏造的答案）減至最低。例如，Scopus AI 只能使用 Scopus 內容。如果它找不到資料來擬定回應，它會告訴您。



可信賴的內容：Scopus AI 所採用的期刊均經過同儕審查，並由獨立專家嚴格審核和挑選，以收錄於 Scopus。



透明的結果：Scopus AI 會顯示其運作情況，並明確引用其用來產生回應的期刊和文獻。這可為您提供透明、值得信賴且可驗證的資訊來源。



社群合作：Scopus AI 是與學術界密切合作開發與測試，因此它是由使用者塑造並為使用者服務的。



以隱私為優先：Scopus AI 旨在避免不必要的資料保留。我們僅以合規的方式儲存使用者資料，目的在於改善產品，例如透過分析或個人化。我們也不會分享這些資料。



全面的洞察力：Scopus AI 不只提供簡單的總結概述回應：獨特的功能，例如 Copilot、延伸概述、概念地圖、基礎論文、主題專家及新興主題，讓您可以繼續探索和學習。



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