



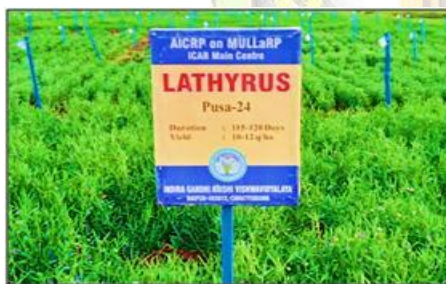
The Reasons and Solution Behind Farmers' Disdain for Underprivileged Crops

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The cultivation of underutilized crops is often hindered by several factors such as limited market demand, lack of knowledge, risk aversion, inadequate infrastructure, policy gaps, social and cultural preferences, and insufficient research and development. These factors collectively contribute to the farmers' preference for mainstream crops with established markets and profitability. The proposed solutions include strategies to enhance market demand and create value chains for underutilized crops, providing farmers with knowledge and information through training and awareness programs, mitigating risks associated with the cultivation of these crops, investing in infrastructure development, implementing supportive policies, considering social and cultural factors, and boosting research and development efforts. By addressing these challenges comprehensively and collaboratively, stakeholders can create an environment conducive to the successful adoption of underutilized crops in agriculture. This abstract underscores the importance of a multi-faceted approach involving government interventions, community engagement, and research initiatives to promote the sustainable cultivation of underutilized crops and diversify agricultural practices for enhanced resilience and food security.



Lathyrus



Quinoa



Amaranthus



Buckwheat



Bathua

Introduction

Underutilized crops are lesser-known plant species in terms of marketing and research, but well adapted to marginal and stress conditions. Their indigenous potential and ethnobotanical data are well known to people, whereas, commercial importance and market value is unknown to the public (Thakur, 2014). This neglect is attributed to a variety of factors such as agronomic, genetic, economic, social, and cultural reasons (Mabhaudhi *et al.*, 2022). Typically, these orphan species are cultivated in resource-poor countries, with women playing a primary role in their production. Women often utilize the seeds on small landholdings in specific agro-ecological areas, as well as on peripheral and sub-peripheral lands, to provide families with nutritionally rich food (Lambein *et al.*, 2019). Additionally, these plants serve as animal feed and contribute to the production of various agricultural products, generating income for farmers in resource-poor conditions (Foyer *et al.*, 2016). However, there are several reasons why many farmers may not be growing underutilized crops.

Here are some common reasons and their potential solutions:

➤ **Market demand and value chains:**

Reason: Farmers often choose crops based on market demand and profitability. Underutilized crops may lack a well-established market or have lower economic returns.

Solution: Efforts should be made to create and strengthen market demand for underutilized crops. Developing value chains, promoting these crops in local markets/daily markets, and establishing partnerships with businesses can help enhance their economic viability.

➤ **Lack of knowledge and information:**

Reason: Farmers may be unfamiliar with underutilized crops, their benefits, and cultivation practices.

Solution: Providing farmers with training, workshops, and access to information about the nutritional value, climate resilience, and cultivation techniques of underutilized crops can increase their awareness and willingness to grow these crops.

➤ **Risk aversion:**

Reason: Farmers may be risk-averse and hesitant to adopt new crops due to uncertainties related to market acceptance, climate conditions, and pest resistance.

Solution: Implementing pilot projects, offering insurance schemes, and providing support in the form of subsidies or incentives can help mitigate the risks associated with growing underutilized crops.

➤ **Infrastructure and Processing Facilities:**

Reason: Lack of infrastructure, storage facilities, and processing units for underutilized crops can discourage farmers from cultivating them.

Solution: Investments in infrastructure development, including storage facilities, processing units, and transportation networks, can improve the overall supply chain for underutilized crops and make them more attractive to farmers.

➤ **Policy Support:**

Reason: Inadequate policy support and incentives for the cultivation of underutilized crops can hinder their adoption.

Solution: Governments can play a crucial role by implementing policies that promote the cultivation, processing, and marketing of underutilized crops. This may include subsidies, research funding, and supportive regulations.

➤ **Social and Cultural Factors:**

Reason: Social and cultural preferences often influence crop choices. If certain crops are deeply embedded in cultural practices, farmers may be resistant to change.

Solution: Engaging with local communities, understanding cultural preferences, and integrating underutilized crops into traditional farming practices can help overcome these barriers.

➤ **Research and Development:**

Reason: Limited research and development on underutilized crops may result in a lack of improved varieties, efficient farming techniques, and resistance to pests and diseases.

Solution: Increased investment in research and development for underutilized crops can lead to the development of high-yielding varieties, improved cultivation practices, and disease-resistant strains, making them more appealing to farmers.

Other several reasons such as presence of toxins and allergenic compounds, green revolution issues, self-incompatibility of certain plants, lack of cooking skills for the preparation of foods based on these plants, unaccustomed taste of the foods, non-popular recipes (Knez *et al.*, 2023). Addressing these challenges requires collaboration among governments, non-governmental organizations, researchers, and farmers to create an enabling environment for the successful adoption of underutilized crops in agriculture.

Conclusion

In conclusion, the reluctance of many farmers to grow underutilized crops stems from a complex interplay of economic, social, and infrastructural factors. A concerted effort to address these challenges through a multifaceted approach can pave the way for increased adoption of underutilized crops in agriculture. By embracing underutilized crops, farmers can diversify their agricultural practices, enhance food security, and contribute to the resilience of the agricultural sector. The potential economic, nutritional, and environmental benefits of cultivating underutilized crops underscore the importance of concerted efforts to overcome the barriers hindering their widespread adoption. As we work towards a more sustainable and resilient agricultural future, recognizing and addressing the reasons behind the underutilization of certain crops is paramount.

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