

TODAY'S IMPORTANT CURRENT AFFAIRS

UPSC MAINS

Date: 15.04.2025

TRADITIONAL SEED SAVING

Source: The post is based on the article published in “The Hindu” on 14.04.2025.

In News: Saving traditional varieties of seeds

Syllabus: Mains – GS III (AGRICULTURE)



Traditional seed saving

Traditional seed saving, also known as **indigenous or heirloom seed** saving, refers to the practice of **collecting and storing seeds** from crops for use in future planting seasons, rather than relying solely on commercially produced seeds. This method allows farmers to maintain local plant varieties and adapt them to specific environments and conditions.

Benefits of seed saving

- ❖ Seed saving is pivotal for sustainable agriculture, ensuring a **constant supply** of diverse crops.
- ❖ By preserving traditional varieties, we protect biodiversity, enhance resilience to pests and diseases, and maintain **unique traits** crucial for adapting to changing environmental conditions.

- ❖ In a world facing **climate uncertainties**, seed saving becomes a beacon of agricultural stability. Farmers who save seeds contribute to the resilience of local ecosystems, fostering a sustainable balance **between agriculture and the environment**
- ❖ The importance of seed saving transcends mere agricultural concerns; it becomes a cultural connection.
- ❖ Preserving heirloom seeds connects us to our ancestors and sustains traditions deeply rooted in the land.

Methods of Traditional Seed Saving

Natural Storage :

- ★ **Sealing with Mud and Cow Dung**: Seeds are stored in bins or baskets sealed with mud and cow dung, often mixed with pest-repellent leaves like neem and soapnut.
- ★ Hanging: Seeds such as maize and gourds are stored in hanging baskets above traditional fireplaces to avoid pests and moisture.
- Seed Treatment:
- ★ **Castor Oil Application**: Seeds are coated with castor oil to repel pests.
- ★ **Fenugreek Straw Mixing**: Fenugreek straw is mixed with seeds to deter pests.
- Fermentation:
- ★ Tomato seeds are **fermented in jars** to remove compounds that hinder germination before drying and storing.
- Drying and Storage:
- ★ Seeds are **dried thoroughly and stored in airtight containers** in cool, dry places, such as terracotta pots or mason jars, to prevent spoilage.
- Selection of Seeds:
- ★ Heirloom and open-pollinated seeds are preferred for saving as they retain beneficial traits and adapt to local climates over time.

These methods ensure seed viability, pest resistance, and preservation of genetic diversity.

Issues and Problems

- ★ Limited Infrastructure:
- ★ Inadequate storage facilities and infrastructure for seed preservation.
- ★ Lack of Funding and Support:
- ★ Insufficient financial resources and government support for seed saving activities.
- Under-Recognition of Grassroots Networks:
- ★ Traditional seed networks are often not recognized or supported as formally as commercial seed production.
- ★ Pest and Disease:
- ★ Seeds can be susceptible to pests and diseases, requiring proper storage and treatment.

Government Initiatives and Programs

Paramparagat Krishi Vikas Yojana (PKVY):

- ★ A government program that promotes organic farming, including the use of traditional seeds and practices.

National Mission for Sustainable Agriculture (NMSA):

- ★ A mission to enhance the sustainability of agriculture, potentially including support for traditional seed saving.

Other Initiatives:

- ★ **Various state-level initiatives and programs** may also support traditional seed saving efforts.

Other benefits of Traditional Seed Saving

- ★ **Biodiversity:** Preserves plant diversity and helps maintain local ecosystems.
- ★ **Food Security:** Ensures access to local varieties and reduces dependence on external seed sources.
- ★ **Climate Resilience:** Traditional varieties are often more adaptable to local climates and environmental conditions.

Economic Sustainability: Reduces reliance on expensive commercial seeds

Other countries practising seed saving

- ★ **CRISAT Community Seed Bank (CSB) Model in Malawi:** This village-based system, managed by smallholder farmers, produces and distributes quality seeds locally using a **lender-borrower model**. It has improved seed access, increased productivity (e.g., groundnut yields), and supported local seed industries. The model emphasizes community cohesion and collaboration with public extension services, ensuring timely seed availability even in remote areas.
- ★ **Community Seed Banks in South Asia:** Initiatives supported by farmer organizations and civil society under projects like **MTCP2 promote seed sovereignty** and community seed banking across SAARC countries. These programs focus on integrated, organic, and diversified farming, strengthening local seed systems and farmer rights
- ★ **Seed-Saving Initiatives Worldwide:** Groups like ASEED Europe, Hawai'i Public Seed Initiative, and Irish Seed Savers preserve biodiversity **through community engagement**, seed exchange, and advocacy, demonstrating the importance of grassroots involvement and policy support.

We can learn from these models by strengthening community seed banks with sustainable business models, technical support, and policy backing to revive traditional seed saving and improve seed sovereignty.