

Seeds bill

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Source: *The Hindu*

Manifest pedagogy: Agriculture productivity has been a key tool in road to doubling farmers income. Seeds and productivity go hand in hand be it seed replacement rate, varietal replacement for diversification or farm saved seeds. UPSC has increasingly focused on agriculture and rural development strategies in which strengthening the seeds act is one.

In news: Seeds bill, 2019 is under Parliament's consideration

Placing it in syllabus: Agriculture

Static dimensions:

- Types of seeds
- GM seeds
- Seeds regulation in India

Current dimensions:

- Seeds bill
- Advantages and Disadvantages

Content:

Types of seeds:

There are **four** generally recognized classes of seeds:

- Breeder seed
- Foundation seed
- Registered seed
- Certified seed

The basis of seed multiplication of all notified

varieties/hybrids is the **Nucleus seed** which is the **hundred percent genetically pure seed with physical purity** and produced by the original breeder/Institute /State Agriculture University (SAU) from basic nucleus seed stock.

Breeder seed :

- The **progeny of nucleus seed multiplied in large area** under supervision of plant breeder / institute / SAUs and monitored by a committee consisting of the representatives of state seed certification agency, national / state seed corporations, ICAR nominee and concerned breeder.
- This is also a **hundred percent physical and genetic pure seed** for production of foundation seed.
- A **golden yellow colour certificate** is issued for this category of seed by producing breeder.

Foundation seed :

- The **progeny of breeder seed produced by recognized seed producing agencies in public and private sector**, under supervision of seed certification agencies and its quality is maintained according to prescribed field and seed standards.
- A **white colour certificate** is issued.

Registered seed :

- It shall be the **progeny of foundation seed** that is so handled as to **maintain its genetic identity and purity** according to standard specified for the particular crop being certified.
- A **purple colour certificate** is issued.

Certified seed :

- The **progeny of foundation seed produced by registered seed growers** under supervision of seed certification agencies to maintain the seed quality as per minimum

seed certification standards.

- A **blue colour certificate** is issued.

Note: **India's Seed Vault is located at Chang La (Ladakh) in the Himalayas**, at a height of 17,300 feet, there is a **storage facility with over 5,000 seed accessions**. One accession consists of a set of seeds of one species collected from different locations or different populations.

It is a **joint venture of** the National Bureau of Plant Genetic Resources (which comes under the ICAR) and the Defence Institute of High Altitude Research (under DRDO).

GM seeds:

- Genetically-modified (GM) seeds are seeds that have been **modified to contain specific characteristics** such as resistance to herbicides or resistance to pests.
- During genetic modification of a plant, a foreign gene called "**transgene**" is inserted in the plant's own genes.
- This could be **introduced from one plant to another plant, from a plant to an animal, or from a microorganism to a plant**.
- **Benefits of GM seeds** include increased crop yields, diminished use of pesticides and herbicides, and increased profits.
- **Concerns** include the private contractual relations between farmers and seed companies, the environmental impacts of the technology and the potential impacts of consumer concerns on the market for GM products.
- Another concern is related to possible harm of GM seeds and crops to other, beneficial organisms.

India ranks fifth in global cultivation of GM crops. Bt cotton is the only GM crop approved for commercial cultivation.

Seeds regulation in India:

The seed industry in India has been **governed by following**

Legislative & policy frameworks such as Seed Act (1966), Seed Rules (1968), Seed (Control) Order (1983), New Policy on Seed Development (1988), Plants, Fruits & Seeds (Regulation of Import into India) Order (1989), Protection of Plant Varieties and Farmers' Right Act (2001), and the Essential Commodities Act, 1955 including Seeds (1955), National Seed Policy (2002), and Seed Bill (2004).

Seeds Act (1966): It was enacted by Parliament for the **whole of India to regulate seeds.**

- Seeds of food crops, oil crops, cotton seeds, seeds of cattle fodder and all types of vegetative propagating material are included.
- Constitution of a **Central Seed Committee** which may notify any seed variety found suitable as per the Act.
- Establishing a **Central Seed Laboratory as well as State Seed Laboratory** to carry out seed analysis of notified variety.
- Empowerment of the **committee to fix the minimum limits of germination and purity of seed** for a variety to be notified as well as for **marking or labeling a seed lot** to be sold commercially.
- Constituting a **certification agency** for undertaking the process of certification and **grant of notification certificate** provided the seed meets minimum limits of germination and purity.
- Appointment of a **seed analyst** to undertake seed testing.
- Appointment of **seed inspector** who is authorised to draw samples from any seller or a purchaser and verify the quality by sending samples to a seed analyst in the seed testing laboratory.
- Responsibility of Seed analyst is to report the results in a specified format after analysis of the seed samples to Seed Inspector as well as the seller/ purchase.
- **Complainant if dissatisfied with the result can apply to the court** for sending samples to Central Seed Testing

Laboratory.

- **Restriction on import and export of seeds of notified varieties.** Any variety imported or exported should meet the minimum limits of seed germination and purity marked or labeled on the container.
- **Recognition of seed certification agencies of foreign countries** for the purpose of this act.
- **Penalty or punishment** or both for those who do not comply with the provisions of the act.
- **Forfeiture of seeds** belonging to any person convicted under this act due to contravention of the procedures under this act.
- **Punishment for offences committed by companies** or any body corporate.

Seeds bill, 2019: The new bill aims to foster competition by **updating the Seed Act 1966 and Seed Rules 1968.**

Features:

- The Bill authorizes the Central government to **reconstitute a Central Seed Committee.**
- **All varieties of seeds for sale have to be registered** and are required to meet certain prescribed minimum standards. For instance, for transgenic varieties of seeds, registration is to be obtained under the Environment (Protection) Act, 1986.
- **Farmers are exempted from obtaining registration for varieties developed by them.** But if the farmer sells such seeds for a **monetary consideration**, then that sale **needs to be registered.**
- Farmers are allowed to **sow, exchange or sell their farm seeds and planting material** without having to conform to the prescribed minimum limits of germination, physical purity and genetic purity. However, **farmers cannot sell any seed under a brand name.**
- The bill has proposed a **differentiation between the seed producer, seed processor and seed dealer** for the purpose

of licensing. However, there is **no recognition of National Level Integrated Seed Companies** with R&D capabilities.

- The Bill insists on **compulsory registration of seeds**. (Currently, a large percentage of seed is sold under a self-certification programme called *Truthfully Labelled (TL) seeds*).
- **Licences/ registration of fruit nurseries**.
- Bill empowers the **government to fix prices of selected varieties in case of “emergent situations”** such as seed shortage, abnormal increase in price, monopolistic pricing, profiteering etc...
- **Consumer Protection Act, 1986** to be used to deal with complaints related to the non-performance of seed.
- Bill **differentiates** the agronomic performance of the seed, its physical quality and the supply of spurious seed **and consequently penalizes the offences** and prescribes punishment.

Advantages and Disadvantages of the bill:

- The **major deficiencies in the 1966 Act** such as lack of licensing provisions and lack of varietal registration prior to sale, is now **incorporated in the new Seed Bill**.
- Seeds Act, 1966 was inspired by the US systems where the variety registration is left to the discretion of the developer, while the **new bill resembles that of EU which define parameters and procedures** for the release of new varieties.
- The new bill has provisions like **compulsory registration of seed varieties based on VCU (value for cultivation and use)**, evaluation and **licensing of seed producers and seed processors**.

- The new bill **differentiates between** the Seed Producer, Processor and the Seed Dealer for the purpose of licensing.

Disadvantages:

1. The Seeds Bill insists on **compulsory registration of seeds**. However, the Protection of Plant Variety and Farmers Right Act, 2001 (**PPVFR Act**) was based on **voluntary registration**.
2. As per the PPVFR Act, all applications for registration should contain the complete data of the parental lines from which the seed variety was derived, including contributions made by farmers. But Seeds Bill demands no such information while registering a new variety. Thus the contributions of farmers is overlooked and private companies are left free to claim a derived variety as their own.
3. The PPVFR Act, which is based on an IPR like breeders' rights, does not allow re-registration of seeds after the validity period. But as per the Seeds Bill private seed companies can re-register their seeds an infinite number of times after the validity period. Due to this **"ever-greening" provision**, many seed varieties may never enter the open domain for free use.
4. The new bill proposes compulsory registration of varieties/hybrids. Given that India has more than 100 crops, 5 geographical regions and hundreds of seed companies with R&D, the **workload for nationwide evaluation as compared to the current workload will be more than 100 times greater**.
5. The disputes on compensation have to be decided as per the Consumer Protection Act 1986. The **Consumer courts are not ideal and farmer friendly institutions**.
6. The provision on **price regulation during "emergency situations"** might **create uncertainty for seed companies and ad hocism in the price policy**. It can stifle

innovation and result in a scale back of research investments.