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Present scenario of seed industry in India

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Manuscript received: October 15,2025; Decision on manuscript, October 17,2024; Manuscript accepted: November12, 2025

The Indian seed industry is regulated by the existing Seeds Act, 1966, which provides a framework for seed quality control through compulsory labeling and voluntary certification, and a new Draft Seeds Bill, 2025 that aims to replace it with a more comprehensive law. The new draft introduces mandatory registration for most seed varieties, stricter quality standards based on VCU (Value for Cultivation and Use) testing, and significantly higher penalties for violations, including imprisonment and fines up to ₹30 lakh. The industry includes both public and private players, with the multi-generational seed multiplication system (breeder, foundation, certified) ensuring quality assurance.

Seed industry structure

The industry is comprised of both public and private sectors, with the private sector having grown significantly in recent years.

Multiplication system: India follows a system of phased seed multiplication through three generations: breeder, foundation, and certified seeds to ensure purity and quality as the variety moves from the breeder to the farmer.

Government role: The government provides policy initiatives, financial assistance for

quality control, and supports seed development organizations and state agencies.

Seed law, regulations, purpose of current law, provisions of seeds act, 1966

Regulates the quality of seeds for sale to farmers, ensuring they receive good quality seeds. Compulsory labeling of seeds for identified varieties.

Voluntary certification of seeds is primary focus of the seed law. Second is to regulation of seed sale, distribution, and trade, requiring licenses for dealers. Last is establishes the function of regulatory bodies like the central seed committee.

Proposed new law (Draft Seeds Bill, 2025)

Purpose and key proposed changes To replace the existing Seeds Act, 1966, to improve seed quality, curb counterfeits, and enhance farmer protection.

Mandatory registration: All seed varieties (with some exceptions) must be registered after undergoing Value for Cultivation and Use (VCU) testing.

Stricter quality control: Only seeds meeting minimum germination and purity standards can be sold.

Stringent penalties: Higher penalties for offenses, including fines up to ₹30 lakh and/or imprisonment of up to three years for major violations.

Strengthened market controls: Mandatory licenses for dealers and a centralized Seed Traceability Portal with QR codes on every seed container for easy identification and validation.

Decriminalization: Minor violations may be decriminalized and addressed with monetary penalties.

Farmer rights: Aims to protect farmers' rights, including the right to save, use, and exchange farm-saved seeds, a right also covered under the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001.

Seed industry business in India

The Indian seed industry is the fifth-largest globally, with a market size of approximately \$3.82 billion in 2025, projected to grow to \$5.00 billion by 2030, according to Mordor Intelligence. It is a mix of public and private sectors, with nearly 700 companies (including public and private) engaged in seed production and trade. State-wise distribution is widespread, but specific numbers for each state are not readily available. Seed registration is mandatory and is regulated by the Department of Agriculture and Cooperation through the Plant Varieties and Farmers' Rights Authority and Seed Certification agencies.

Present status and global ranking: The Indian seed industry ranks fifth in the world, with the United States, China, France, and Brazil holding larger market shares.

Market Size: The current market is valued at around \$3.82 billion (in 2025) and is expected to reach \$5.00 billion by 2030, growing at a CAGR of 5.55%.

Growth drivers: Growth is driven by government initiatives, a focus on high-

yielding and hybrid seeds, increasing certified seed penetration, and the development of climate-smart varieties.

Industry transformation: The industry is undergoing significant transformation, with the increasing role of private companies, the entry of multinational corporations (MNCs), joint ventures, and consolidations.

Number of seed companies

Total: There are nearly 700 seed companies in India, encompassing both public and private sectors.

Public sector: The public sector includes the National Seed Corporation (NSC) and State Seed Corporations (SSCs).

Private sector and state-wise distribution::

A large number of private companies, cooperatives, and individual farmers also contribute to seed production and trade. Specific state-wise numbers are not publicly available, but distribution is widespread across all states.

Registration and regulation mandatory registration and regulatory authority: All seed sold commercially must be registered and meet quality standards. Registration is regulated by the Department of Agriculture and Cooperation, primarily through the Plant Varieties and Farmers' Rights Authority.

Certification: Seed companies must also go through a certification process through state-level seed certification agencies to ensure quality.

Private-public partnership: Both the public and private sectors have a role in seed production, with the private sector playing a growing role in research and development.

Detailed note for NABARD.pdf - National Seed Association of India

The public sector is represented by the National Seed Corporation (NSC) and the State Seed Corporations (SSCs).

Some prominent seed companies operating in Telangana and Maharashtra

These two states contribute major seed companies in India and include Kaveri Seed Co Ltd, Nuziveedu Seeds, JK Agri Genetics Limited, and Bayer Crop Science. Other companies, like Mahyco, are based in Maharashtra, while many have a significant presence in Telangana, particularly in cities like Hyderabad and Rangareddy.

Telangana

- JK Agri Genetics Limited
- Gemini Seeds Private Limited
- Ganga Kaveri Seeds Private Limited
- Nuziveedu Seeds
- Delta Agrigenetics Pvt. Ltd.

References

1. Manjunatha, B. L., Rao, D. U. M., and Dastagiri, M. B. 2013. Trends in seed production, growth drivers and present

- Esha Agri Seeds Pvt Ltd
- Kaveri Seed Co Ltd
- Ankur Seeds Pvt.Ltd
- Foragen Seeds Private Limited
- Shriram Bioseed Genetics
- Hytech Seed India Pvt Ltd
- Krishidhan Seeds Limited

Maharashtra

- Maharashtra Hybrid Seeds Company Ltd (Mahyco)
- VNR Seeds Pvt. Ltd.
- Syngenta India Ltd
- Advanta India Ltd
- Kalash Seeds Pvt. Ltd.
- Monsanto India Ltd.

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