

## Blockbuster Pusa-1121 and 1509 Basmati varieties

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Indian Agricultural Research Institute (IARI) has highlighted the illicit cultivation of high-yielding basmati varieties, including Pusa Basmati-1121 (PB-1121), Pusa Basmati-6 (PB-6), and PB-1509, in Pakistan.

- Blockbuster Pusa-1121 and 1509 Basmati varieties being grown and marketed in Pakistan as "1121 Kainat" and "Kissan Basmati".



[ref-IndiaMart]

### **About the high-yielding basmati varieties:**

#### **PB-1121:**

- PB 1121 is an **independently derived Basmati rice variety**, evolved through the process of hybridization over a long breeding process.
- It holds the world record for **highest kernel elongation on cooking**.
- It is a **photo-insensitive cultivar** that **matures earlier** than traditional basmati cultivars, requires less water, and **yields 19–20 quintals of paddy per acre**.

#### **PB-6:**

- PB-6 is a **high-yielding**, semi-dwarf variety of basmati paddy rice that matures in 140–145 days.
- It has medium-sized grains that are **attractive and aromatic**.
- It is an improvement over Pusa 1121 in its cooking **quality, agronomy, and yielding ability**.

#### **PB-1509:**

- PB-1509 is a variety of basmati rice that **matures early**, with a **seed-to-seed maturity of around 120 days**.

- It is the **first early maturing basmati paddy variety**.
- It is **semi-dwarf in stature**, with non-lodging and non-shattering habits.
- It is also **tolerant to blast and leaf curl**, and is **extremely fragrant**.
- PB-1847, PB-1885, and PB-1886 are improved versions of PB-1509; they **resist bacterial blight** and rice blast fungal diseases in rice plants.

#### **Legal protection:**

- All varieties are **notified under the Seeds Act, 1966** for cultivation in the demarcated Geographical Indication area of basmati rice within India, spanning 7 northern states.
  - Seeds Act, 1966 regulates the **quality of seeds for sale** and **prohibits the export and import of certain types of seeds**.
- They are also registered under the **Protection of Plant Varieties and Farmers' Rights Act, 2001**.
  - This Act allows **only Indian farmers** to sow, save, re-sow, exchange or share the seeds of any protected/registered varieties.
  - Even they cannot **violate the breeder's rights** by selling the seeds in branded packaged and labelled form.

#### **Basmati rice export from India:**

- India is the **world's leading exporter of basmati rice**, accounting for more than 70% of the world's production.
- **India shipped out 45.61 lakh tonnes** (lt) of basmati rice worth \$4.79 billion in 2022-23.
- The main export destinations included **Saudi Arabia, Iran, Iraq, the United Arab Emirates, and Yemen Republic**, with a significant demand for **parboiled rice**.
  - Parboiled rice undergoes **partial boiling while still in its inedible husk**, resulting in harder grains less prone to breakage during prolonged cooking.

#### **About Basmati rice:**

- Basmati rice is a **long-grain rice** with a soft, fluffy texture and a distinct flavor.
- It is known for its **intense aroma**, high volume expansion during cooking, and long length of cooked grain.
- It is grown in the **Himalayan foothills of northern India**, including the states of Punjab, Haryana, Himachal Pradesh, Uttarakhand, Western Uttar Pradesh, Delhi, and Bihar.
- They necessitate **extended periods of sunlight**, high humidity levels, and a consistent water supply.
- To date, 34 varieties of Basmati rice have been listed under the Seeds Act, 1966.