## Farmers Scientist Interaction and paddy seed distribution programme 20<sup>th</sup> May, 2025

The program of interactions between farmers and scientists and the proliferation of improved varieties of paddy seed was organized at Kathura village in Sonipat district of Haryana on 20<sup>th</sup> May, 2025. Approximately, 50 farmers participated and interacted with the scientists. Now days the farmers are shifting to shorter-duration varieties due to environmental concerns and stubble burning issues. During the distribution program seed of improved paddy varieties like Pusa Basmati 1121, 1718, 1692, and 1509 to was given to the farmers to enhance the productivity, sustainability, and economic returns.

Dr Raj Kumar, PI of Farmer FIRST programme interacted with farmers and explain about the main characteristics of theses varieties like early-maturing varieties (1692, 1509) support push for DSR, reducing water use and stubble burning. Whereas the varieties, mainly 1121 and 1509, contribute to Haryana's significant share in India's Basmati exports. Pusa Basmati 1121 is known for its extra-long slender grains, exceptional cooking quality, and strong aroma. Similarly, Pusa Basmati 1718, a genetically modified version of Pusa 1121, engineered for resistance to bacterial blight. Pusa Basmati 1692, an early-maturing variety with semi-dwarf, non-lodging, and non-shattering traits. The shortest duration among these varieties allows farmers to clear fields early, facilitating wheat sowing and reducing stubble burning, a major issue in Haryana. It also lowers water and energy use, critical for sustainable agriculture. Ideal for farmers adopting Direct Seeded Rice (DSR) techniques, supported by Haryana's Rs 4,000/acre DSR incentive, as it reduces water use by 15–20% and aligns with sustainable practices. Pusa Basmati 1509, early-maturing, semi-dwarf, non-lodging, and nonshattering, with extra-long grains and excellent cooking qualities (fluffy, non-sticky, strong aroma). Dr Suresh Kumar, CoPI concluded this program and briefed that improved seeds of Pusa Basmati 1121, 1718, 1692, and 1509 in Haryana has been highly beneficial, offering higher yields, disease resistance (especially 1718), and water efficiency (1692, 1509). These varieties support economic gains through premium market prices and export demand while addressing environmental concerns like groundwater depletion and stubble burning. However, challenges like high seed costs, supply shortages, and regulatory gaps hinder full adoption. Strengthening seed supply chains, enforcing price controls, and expanding DSR incentives could maximize the program's impact, ensuring sustainable agriculture and improved livelihoods for Haryana's farmers.



