ICRISAT launches new facility to accelerate plant life-cycle

Hyderabad, Feb 14 (IANS) Giving a major boost to the efforts to modernise crop breeding, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) on Friday launched new facility, which is projected to significantly lower time and cost of crop varietal development.

Called RapidGen, this facility has in it the technology that can make plants zoom through their lifecycle to quickly reproduce and bear seeds.

Where it normally takes about a decade to develop new varieties, RapidGen can help cut that down by about 40 per cent, scientists at ICRISAT said.

The state-of-the-art facility, a first for any public sector agricultural research institution, will accelerate plant lifecycle in light, temperature and humidity-controlled conditions.

Presently, breeding a new crop variety takes about a decade or more, with six or seven years spent in seasonal generational advancements to arrive at the elite lines that go for testing and release as varieties. RapidGen will shorten the six-seven year window significantly.

"Climate and exponential population growth have to be considered for rapid development of improved food crops is essential. But we also need to look at what has been achieved to sustain food security and achieve nutrition security," said Dr Peter Carberry, Director General, ICRISAT.

"With facilities like RapidGen, crop breeders can overcome the limitations of seasons and photoperiod to develop the elite generations in fraction of the time and cost it would take if done in fields."

Dr Kiran K Sharma, Deputy Director General, Research, ICRISAT, told the media persons that protocols for chickpea, groundnut, pearl millet and sorghum are already in place. "Protocol development is the first step before a breeding program can take advantage of facilities like RapidGen. With their development, our partners and collaborators, both public and private, can integrated these modern techniques into their breeding programmes."

ICRISAT is collaborating with several agricultural research institutes under Indian Council of Agricultural Research (ICAR), State Agriculture Universities and industry partners to mainstream rapid cycling of the crops for which protocols have already been standardised.

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