

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION

LOK SABHA
UNSTARRED QUESTION NO. 2151
TO BE ANSWERED ON 14th MARCH, 2023

FLOOD/DROUGHT TOLERANT SEEDS

2151. SHRI JUAL ORAM:

Will the Minister of AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्री be pleased to state:

- (a) whether the Government has any plan to invest/promote seed research to tackle climate change related cropping issues and droughts to help the farmers in future and if so, the details thereof;
- (b) whether flood/drought tolerant seeds are being developed in our country and if so, the details thereof; and
- (c) the efforts that the Government has taken to improve the per acre yield of various crops?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) and (b): Indian Council of Agricultural Research (ICAR) through its 57 Institutes and 40 All India Coordinated Research Projects/ All India Network Projects operating in more than 930 centres across 45 State/Central Agricultural Universities is promoting research on improvement of seed/varieties. In addition, eight special projects viz., ICAR - National Innovations on Climate Resilient Agriculture (NICRA), four Consortium Research Projects, Incentivizing Research in Agriculture Project, Network Project on Translational Genomics in Crop Plants and National Agricultural Science Fund are also focussing on climate change research in seed varieties.

To tackle climate change related cropping issues and droughts ICAR has developed more than 7200 high yielding varieties of field and horticultural crops since 1969 through National Agricultural Research System (NARS). During 2014-15 to 2022-23, NARS under the aegis of ICAR has released 2681 high yielding/ stress tolerant varieties/ hybrids of field (2279) and horticultural crops (402) for different agro-climatic conditions, of which 407 varieties have been bred through precision phenotyping tools specially for extreme climate including flood/ water submergence/ water logging tolerance (73), drought/moisture stress/ water stress tolerance (220), salinity/ alkalinity/ sodic soils tolerance (52), heat stress/ high temperature tolerance (49) and cold/ frost/ winter chilling tolerance (13).

(c): India has made a commendable progress in improving per unit yield of various food grains by deploying the high yielding climate resilient varieties through enhanced seed and varietal replacement rates, which has resulted in increasing the overall productivity level of food grains by 4.57 times (2386 kg/ha) during 2020-21 as compared to 522 kg/ha during 1950-51. Since 2014, average productivity in most of the crops has increased significantly as a result of which total production of food grains has increased to 6.4 times from 50.8 million tonnes in 1950-51 to 323.6 million tonnes during 2022-23 (2nd advance estimates).
