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

LOK SABHA
UNSTARRED QUESTION NO. 4924
TO BE ANSWERED ON 23/07/2019

FLOOD TOLERANT SEEDS

4924. DR. UMESH G. JADHAV:

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

(a) whether the Government is developing eco-friendly flood tolerant seeds for protecting the crops in flood-prone regions;

(b) if so, the details thereof;

(c) whether the seeds have already been used anywhere in the country;

(d) if not, whether the Government would start working in this field; and

(e) the time period by which the Government plans to expand it to all the flood prone States in the country?

A N S W E R

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

(a) & (b): Yes Sir. During last five years (May 2014 to 2018), the Indian Council of Agricultural Research (ICAR), through its Institutes, All India Coordinated Research Projects (AICRPs) and State Agricultural Universities (SAUs) has released 35 varieties of various field crops (rice - 21, maize -2, jute - 3, sugarcane - 8 and rice bean - 1) that are tolerant to flood/submergence/water logging/deep water (Annexure).

(c) Yes, Sir. ICAR has produced 772q breeder seeds of flood/submergence/water logging tolerant varieties of various crops (predominantly rice) as per the indent received from Department of Agriculture Cooperation & Farmers Welfare (DAC&FW). The breeder seed is further converted to foundation, certified and truthfully labelled seeds for commercial cultivation by the farmers. Since 2016-17 till Kharif-2019; 73.20 lakh quintals seeds of stress tolerant (flood, drought and salt) paddy varieties was produced in the country. Further, 3600q planting material of stress tolerant sugarcane varieties was also produced.
National Seed Corporation Ltd, State Seed Corporations, State Department of Agriculture, ICAR Institutes, SAUs, Cooperatives and Private Seed Companies are already involved in production and marketing of these seeds.

(d) Does not arise in view of reply to (c) above.

(e) The Government of India supplements the efforts of the State Governments by coordinating seed requirement and availability through the mechanism of Zonal Seeds Review Meetings prior to each sowing season and developing Seed Rolling Plan for each State. Moreover, contingency planning as per the indent/requirement is also done to produce seeds of stress tolerant varieties including the flood prone States.

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### Flood/submergence/water logging/ deep water tolerant field crop varieties released during May 2014 to 2018

<table>
<thead>
<tr>
<th>Crop</th>
<th>Varieties</th>
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<tbody>
<tr>
<td><strong>Rice (21)</strong></td>
<td>CR Dhan 505; Samba Sub-1 (IET 21248); Tanmayee (OR2339-8) (IET20262); CR 1009 Sub 1; CR Dhan 508 (IET 23601); Bheema (Dheera) (MTU 1140); Rajdeep CN 1039-9 (IET 17713) (CNR 4); CR Dhan 506 (IET 23053); CR Dhan 408 (IET 20265) Chakaakhi; CR Dhan 507 (IET 22986); CR Dhan 409 (IET 23110); CO 43 Sub-1 (IET 25676); DRR Dhan 50 (IET 25671); Bahadur Sub-1; Ranjit Sub-1; Ashutosh (OR 2331-14) (IET 21341); Tripura Jala -1; CR Dhan 801 (IET 25667) (IR 96322-34-223-B-1-1-1-CR3955-2); CR Dhan 510 (IET 23895) (CR2593-1-1-1-1); Ksheera (IET 24495) (MTU 1172); CR Dhan 802 (Subhas) (IET 25673) (CR3925-22-7)</td>
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<tr>
<td><strong>Maize (2)</strong></td>
<td>Jawahar Maize 218; Pusa Jawahar Hybrid Maize-1</td>
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<tr>
<td><strong>Jute (3)</strong></td>
<td>JRO 2407 Samapti (Tossa Jute); Ishani (JRC-9057) White Jute; NCJ-28-10 AAUCJ-2 (Kkhyati)</td>
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<tr>
<td><strong>Rice bean (1)</strong></td>
<td>Bidhan Rice Bean-3 (KRB-19)</td>
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<tr>
<td><strong>Sugarcane (8)</strong></td>
<td>Sankeshwar 814 (Co Snk 05104); Sankeshwar 049 (Co Snk 05103); Gujarat Sugarcane 5 (CoN 05071); Gujarat Sugarcane 7 (CoN 04131); Buddhi 2003 A 255 (CoA 08323); CoLK 09204 (Ikshu-3); CoA 11321 (Sri Mukhi); CoLk 12207 (Ikshu-6)</td>
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