

New high-yielding and pest-resistant variety of soybean can help boost countrywide production

Indian Scientists have developed a high-yielding and pest-resistant variety of soybean.

This newly developed variety called MACS 1407 is suitable for cultivation in the states of Assam, West Bengal, Jharkhand, Chhattisgarh and North-Eastern states and its seeds will be made available to farmers for sowing during the 2022 Kharif season.

In 2019, India produced around 90 million tons of soybean, widely cultivated as oil seeds as well as a cheap source of protein for animal feed and many packaged meals and is striving to be among the world's major producers of soybean. High-yielding, disease resistant varieties of the legume can help achieve this target.

Accepting this challenge, scientists from MACS- Agharkar Research Institute (ARI), Pune, an autonomous institute of the Department of Science & Technology, Government of India in collaboration with Indian Council of Agricultural Research (ICAR), New Delhi have developed higher yielding varieties and improved practices for the cultivation of soybean. Using the conventional cross breeding technique they developed MACS 1407 which gives 39 quintals per hectare making it a high yielding variety and is also resistant to major insect-pests like girdle beetle, leaf miner, leaf roller, stem fly, aphids, white fly and defoliators. Its thick stem, higher pod insertion (7 cm) from ground, and resistance to pod shattering make it suitable even for mechanical harvesting. It is suitable for rain-fed conditions of north- east India.

Mr Santosh Jaybhay, ARI scientist who led this work said, 'MACS 1407' showed 17% increase in yield over the best check variety and 14-19 % yield advantage over the qualifying varieties. It is highly adaptive to sowing from 20 June to 5 July without any yield loss. This makes it resistant to the vagaries of Monsoon as compared to other varieties."

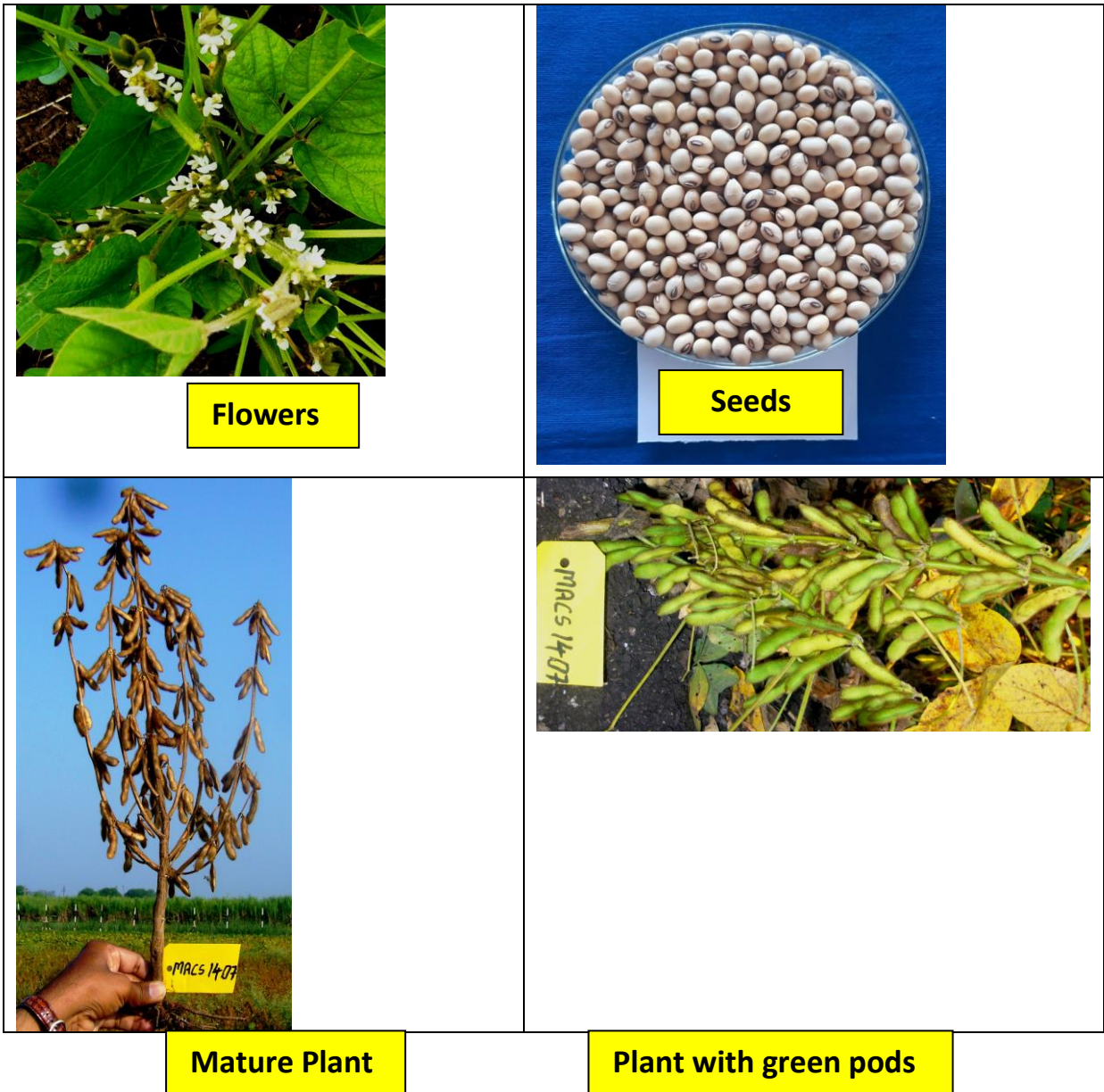
MACS 1407 requires an average 43 days for 50 % flowering and takes 104 days to mature from the date of sowing. It has white coloured flowers, yellow seeds and black hilum. Its seeds have 19.81 % oil content, 41 % protein content and show good germinability. This high yielding, pest resistant, low water and fertiliser requiring soybean variety, suitable for mechanical harvesting has recently been released by the Central Sub-Committee on Crop Standards, Notification and Release of Varieties of Agricultural Crops under the Ministry of Agriculture and Farmers Welfare, Government of India making it legally available for seed production and cultivation.

References:

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Field view of MACS 1407

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