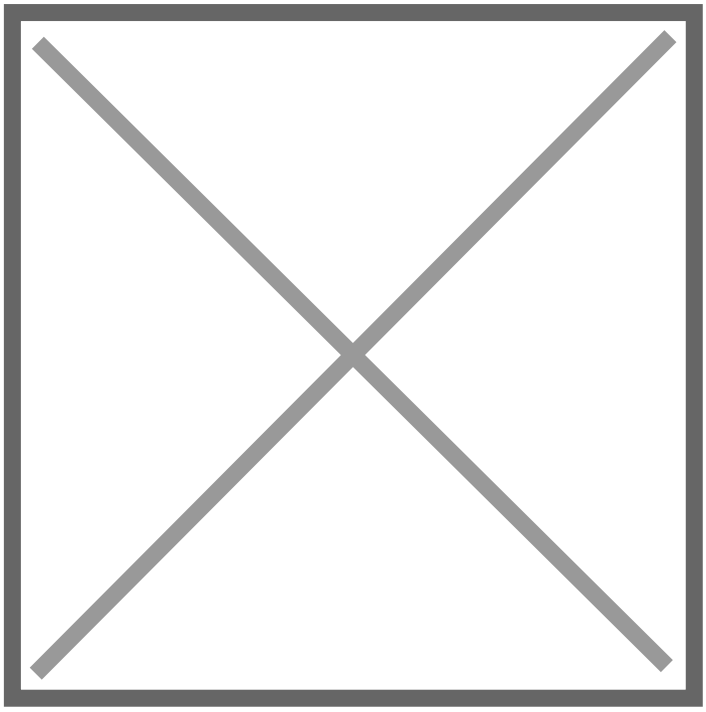
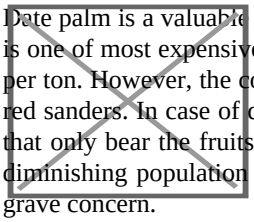
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Quality date palm and red sanders

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The project on development of commercial scale micropropagation technology for elite date palm and red sandalwood by Sun Agrigenetics was supported by DBT through its SBIRI scheme



Date palm is a valuable tree that can be easily grown in the saline region, hence rendering the land very productive. Similarly, Red sanders is one of most expensive timber tree in the world as evidenced by the current international price of its timber which is as much as 1 crore per ton. However, the common issue faced by the farmers generally is the unavailability of quality planting material of both date palm and red sanders. In case of date palm, the traditional seed-derived propagules do not ensure the quality as well as desired female sex of plants that only bear the fruits resulting in wastage due to non-productive male plants that come from seeds. At the same time the dangerously diminishing population of sandalwood due to large scale illegal logging for smuggling into China, Korea, and Japan is also a matter of grave concern.

Keeping in view the vast potential for planting tissue culture and the technology being not available for the identified elite varieties, Vadodara-based Sun Agrigenetics collaborated with Department of Biotechnology (DBT), and was granted funds under the Small Business Innovation Research Initiative (SBIRI) project to develop commercial scale technology for date palm and red sanders micropropagation. While the date palm project was initiated in August, 2010 with SBIRI funding worth 59 lakh, another project on red sanders was funded 31 lakh in April, 2011.

The several accomplishments of the company can be credited to both the promoters of Sun Agrigenetics, Dr Daksha Bhatt and Dr Prashant Bhatt who were pioneers in commercial micropropagation having more than 20 years of experience in the field. The strong and focused objectives of the team has made the unit a recognized in-house R&D centre by Department of Scientific and Industrial Research (DSIR) as well as a recognition under National Certification System for Tissue Culture Raised Plants (NCS-TCP) from DBT.

Ã¢â?¬Å?The research work on micropropagation involves extensive travel for collection of plant tissues, expensive chemicals and equipment as well as involvement of trained scientists. Protocol development is difficult and time consuming for tissue culture of such recalcitrant species with low success rates. Expenditure for all this is difficult to manage by a small company. We could only do this with the generous funding from DBT, partly as term loan and partly as grant-in-aidÃ¢â?¬? explained Dr Daksha Bhatt, director, technical, Sun Agrigenetics.

Way forward

There is a need to genetically map the unique trees to protect the valuable germplasm. The company has set up a facility for developing molecular marker for identification of such unique trees. The company believes that this technique could also be applied for other high value plants. The company's R&D team has identified some unique high yielding varieties of date palm which are old trees and there is no means of propagating them conventionally, so micropropagation is the only resort. Similarly, it has been able to trace some old trees of red sanders in the forests of central India which have unique wood quality and would be of interest to propagate such clones.

Since India has very large acreage of as much as 23 million hectare of saline land which is non-productive, these projects which are of great relevance seem to be going just in the right direction.

Rahul Koul