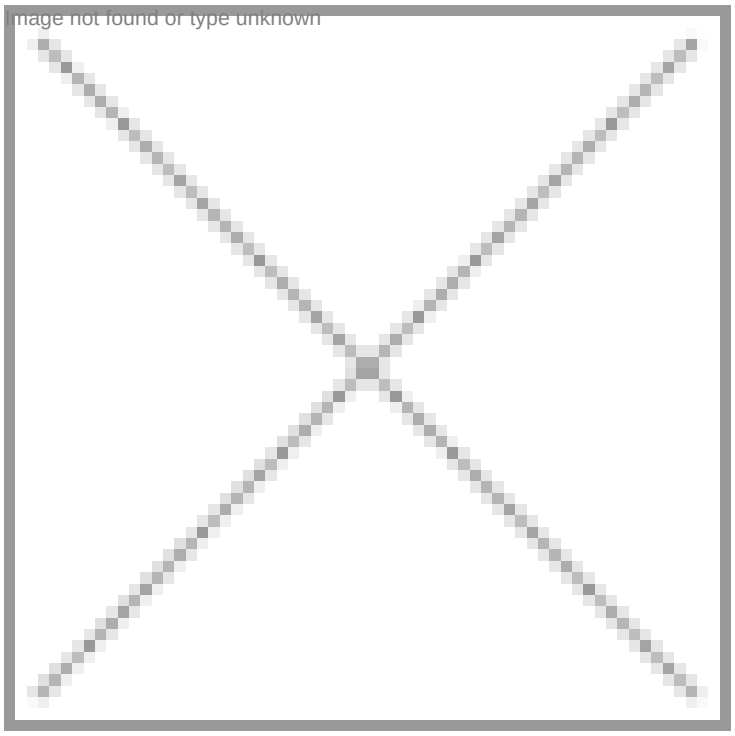
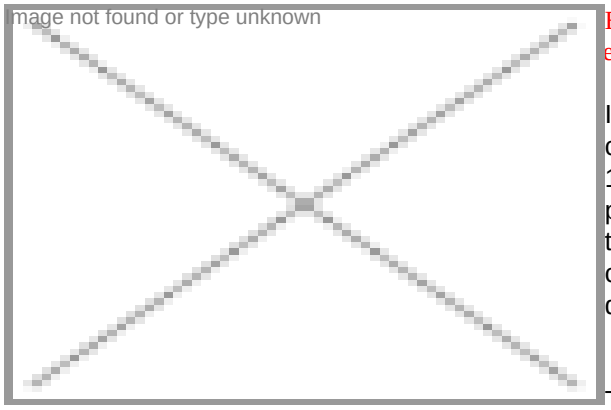
BioSpectrum the business of Bio & Health Sciences

New stress tolerant onion hybrids

11 May 2012 | News





Bejo Sheetal Seeds and International Centre for Genetic Engineering and ess tolerant onion

In India onion is one of the most important vegetable commodities - the country ranks second in onion production globally. India produces about 15 tons onion per hectare, which is 25 percent of the highest global onion productivity in the US. However, one of the major challenges faced by the farmers in India is the large number of weed occurrence in onion crops which results in huge losses. Also, the cultivation of onion, which is done mostly in the Rabi season, when there is scarcity of irrigation water,

To address this problem, Jalna-based Bejo Sheetal Seeds has initiated a project on creating herbicide and stress tolerant onion hybrid varieties in partnership with the International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi. The project aims to apply the biotechnological tools to improve the productivity of onion.

The project received support from the Department of Biotechnology (DBT) under Biotechnology Industry Partnership Partnership Programme (BIPP). The funding helped the company to carry out the validation of both herbicide tolerant and stress tolerant technologies and further utilization of the same for development of the onion products.

According to B Mazumdar, vice president, Bejo Sheetal Seeds, although the grant amount is usually very low, the grant support from public partner institute to work together for the objective is important. â€œCertainly the loan amount with low

interest encourages us to work on the projects where product commercialization is not certain,â€? adds Mazumdar.

He calls the BIPP a great support. â€œWe believe in public private partnership for developing biotech products and this allows us to get guidance from the expert scientists of public institutes. The â€œpublic private partnershipâ€? will be helpful for the high risk technology deployment and commercialization in Indian biotech industry,â€? he says.

Way forward

The project initiated in March 2010 has been progressing well as per the work plan. The set milestones have been achieved with the progress indicator towards development of transgenic onion for herbicide and stress tolerance. Stress tolerance particularly from drought and salinity is becoming an important factor to avoid crop losses and low yields in most of the vegetable crops, in particular, onion. Addressing weed management by developing transgenic variety would be a better alternative in near future considering the success of herbicide tolerant variety cultivation globally.

â€œTransgenic technology deployment is encouraging for both the traits being developed in this project. A few technologies have been commercialized in food crops such as transgenic papaya in Hawaii, transgenic beans in Brazil, and golden rice which are on the verge of commercialization. Bt Brinjal is ready for commercial cultivation although it is taking time to make the same available to the farmers. There are great chances of increasing onion production if transgenic onion is deployed with herbicide and drought stress tolerance,â€? concludes Mazumdar.

Rahul Koul in New Delhi