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"India has huge market potential for main and vegetable crops"

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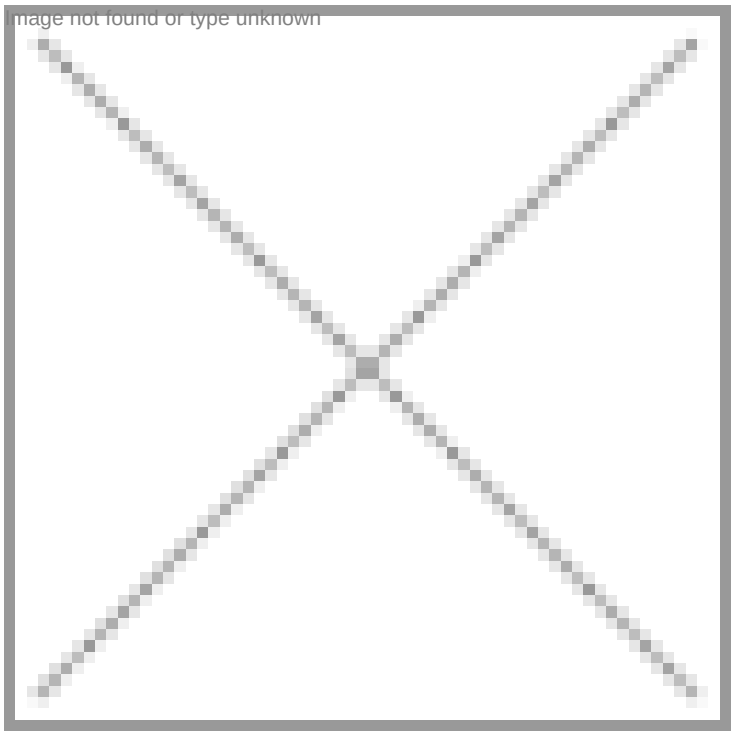

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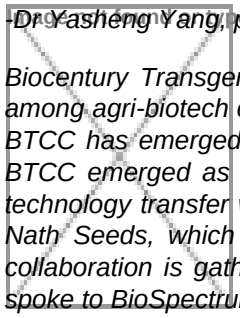

-Dr Yasheng Yang, president, Biocentury Transgene (China) Co. Ltd, China

Biocentury Transgene (China) Co Ltd (BTCC) a public-private enterprise and enjoying the status of 'Jewel in the Crown' among agri-biotech companies in China was set up in 1998 as a Chinese company to promote Chinese Bt cotton technology. BTCC has emerged as the major technology provider of Bt cotton, as well as the main competitor to Monsanto. Last year BTCC emerged as the No.1 cottonseed company in China. In 2001, BTCC signed the first ever overseas agreement for technology transfer with an Indian seed company, Global Transgenes Limited (GTL), a sister concern of Aurangabad-based Nath Seeds, which launched its first Bt hybrids during the last kharif season in April -May 2006. Indeed, cross-border collaboration is gathering momentum. To oversee the progress of Bt hybrids in India, Dr Yasheng Yang was in India. He spoke to BioSpectrum about the agri biotech scenario and opportunities in China. Excerpts of the interview:

If I am not wrong, at present Monsanto and BTCC are the only two leading Bt cottonseed companies in China...

I would say mostly yes. We do have companies working on different kinds of Bt and insecticides. They get approval from the Chinese central government. But they are not so efficient. Monsanto is selling its Bt cottonseeds on its own in China. Last year, about 62 percent of the Bt cottonseeds sold in China were from BTCC. And Monsanto's sales were down by 30 percent. This year we are expecting it at 70 percent of the Bt cotton market. Our sales revenue from Bt cottonseeds for December ending 2005 touched 30 million RMB*. We are expecting the sales revenue at 70 million RMB this year.

Besides private sector initiatives, we have institutes like the Chinese Academy of Agricultural Sciences working on agri biotechnology. Many institutes mostly in the public sector are working on developing genes against drought, pest, salt, cold resistance using Bt technology. Universities like Beijing University and China Agricultural University are actively involved in different crops, genes related to agri biotechnology. Agriculture and science and technology departments have been providing support to these public sector institutes in carrying out R&D activities. The funding for the research activities mainly comes from the Chinese central government and also from the provincial governments.

Besides funding the projects, what other support is the Chinese government offering to agri biotech companies?

In China we get two kinds of funding. The first is for R&D activities to develop technologies in the public sector. The funding for R&D activities comes mainly from the science and technology department of the central Chinese government. Every provisional government has science and technology department that funds mainly the R&D activities. The second fund is for commercialization. A lot of funds are available for commercialization purposes. There is no discrepancy between the private and public sector while disbursing the funds. Both will get the priority based on the merit of the projects. The central government has earmarked * $1.2 billion (10 billion RMB) for R&D for the next five years. The government has also been offering many tax benefits to the private sectors that are actively investing on R&D. For example, a company will get tax exemption if it invests 10 percent of its sales revenue in R&D.

Affordability is a key factor when it comes to marketing of seeds to the farming community. What are your initiatives in this regard?

The Chinese central government has laid emphasis on research activities and allocation of funds for biosafety studies and infrastructural preparedness related to commercialization of GM crops was not a constraint. This helped us to offer the Bt cottonseeds to the farmers at a much lower price. Our sales price for Bt seeds is very less compared to the competitors. Our high yielding Bt hybrid cottonseeds are sold at a retail price of 50-60 RMB (Rs 300-360) for a pack of 300-350 gm and the low cost Bt varieties are available at 25-30 RMB (Rs 150-180) per pack. This price is much lower than the Bt cotton available in India.

The Chinese farmers are now saving about $270 per hectare by using our Bt hybrid cottonseeds. There is an increase of 5-10 percent in yields and reduction in the use of insecticides almost by to 2-3 times per season from the 14-16 times per season. The farmers are happy and we are also happy.

What strategy has the BTCC adopted to take lead in the Bt cottonseeds sales in China?

In addition to pricing, we are also supplying about 150 hybrids/varieties of Bt cottonseeds through an established chain of sub-licensees in the range of 40-50 companies across the country. Our competitor has only two varieties of Bt cottonseeds. And more companies are expected to join this chain in the coming years. Every year 50-60 hybrids/varieties of Bt cotton are added as sub-licensees of BTCC are launching newer varieties after getting the approval from the central government or the provincial government. Over two thirds of our sales is from Bt varieties while the rest is from Bt hybrids. Now farmers are being encouraged to go for hybrids, which are slightly on the higher side as compared to the varieties.

What are your focused research initiatives at BTCC?

We are mainly focusing on Bt cotton. Our other focus areas include Bt rice, cold resistant tree and grass. The second major Bt crop in China is rice. Why is rice the second priority? It is mainly grown in south of China where the climate is hot like here in India. The third area is cold resistant tree and grass. We are now working on large-scale field trials for Bt tree and grass. There is a very huge market potential for Bt tree and grass in China; mainly the demand will be from the government and also from the industry. Having an R&D team of 30, we are spending about 3 million RMB on R&D activities every year.

Where do you see more opportunities in agri biotechnology after the successful joint initiatives between BTCC and GTL in the Bt cotton space?

At present we are focusing on cotton and shown the technology on cotton. We have recently reviewed plans for the future.

New insecticidal genes, other genes of interest and crops other than cotton are also on the agenda. We wish to work together in technology program breeding programs and also trials program with the GTL. We would be planning to set up several other programs to be in touch with Indian companies.

What are your observations from your first visit to India?

I visited three places in India - two locations in Hyderabad, three locations in Aurangabad and one location in Nagpur. During the field visits I came to know about spread of armyworm to cotton. We did not see much of armyworm in China. It seems to be a serious issue for cotton farmers in India. However, it is interesting to share this information that Biocentury's Bt cottonseeds are resistant to armyworm but I did not see that kind of resistance to armyworm from the competitor's Bt cottonseeds in the same location.

What are your future plans for India?

Well, India has very big area and is an agriculture country. Since both India and China have more population in common, more attention should be given on commercialization. It has huge market potential for main and vegetable crops. We do wish to have technologies with the Indian companies to get more market in future. We have a good partnership with GTL and wish to move forward.

Narayan Kulkarni

** Note: 1 RMB = about Rs 6 (to be precise - Rs 5.8) and US $1= 0.13 RMB*