BioSpectrum the business of Bio & Health Sciences

Smiles with cry1C gene

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Even as a cloud of uncertainty has gathered over the moves to approve the country's first GM food crop, Bt brinjal, India's biotech regulator has given the industry a big reason to cheer. The Genetic Engineering Approval Committee (GEAC) has given its approval to a new "genetic event 9124" to use the novel synthetic gene, cry1C, in two Bt cotton hybrids (MH 5125 and MH 5174) developed by Bangalore-based Metahelix Life Sciences.

From the time India's first Bt cotton hybrids containing cry1AC genes, developed by global seed giant, Monsanto were introduced in 2002, experts have been stressing the need to have home-made genes. Now an Indian company, started by homegrown experts, has demonstrated the capability to develop a newer version of the gene, without help from any public or private laboratory. In fact, the new hybrids from Metahelix will match the 2nd generation Bt cotton hybrids released by Monsanto incorporating its proprietary cry2AC genes. The new gene-based hybrids will protect the crops against its two major pests—bolloworm and spodoptera—with a single gene.

This outstanding achievement by the Metahelix team, led by KK Narayanan, is significant for two reasons. One, the cry1C gene will become an alternate technology platform to Monsanto's and other seed giants' cry1AC based crop protection system. The cry1AC gene has been in use for over a decade around the world and there is every possibility of the major cotton pest, bollworm, mutating to develop resistance to this gene. The world will have an alternate option should that happen soon.

Second, a lot of opposition to the GM technology in India, to a large extent, was also based on the fact that the royalty or technology fee on the Bt cotton seeds went to a multinational giant. With the home-grown Metahelix in a position to transfer

this technology at affordable rates to Indian seed companies, the future GM products in India could run less risk of opposition from a wide range of anti-GM activists.

Metahelix, angel funded by Nadathur Holdings of one of the co-founders of Infosys, NS Raghavan, and supported by Kotak Mahindra Private Equity Fund, has managed to get commercial approval for the cry1C gene with an investment of just Rs 50 crore. Hence, it will be in a position to rewrite the rules of the game, if it plays its cards right. Metahelix could well turn out to be the “game changer” for India’s BioAgri industry, in the same manner in which Shantha Biotech’s Varaprasad Reddy, influenced the course of the country’s fledgling biotech sector with his home-made Hepatitis B vaccine in the late 1990s.

The baton of ministerial leadership in the science and technology ministry has meanwhile been handed over to Prithviraj Chavan from Kapil Sibal. A foreign-educated engineer by profession, Chavan has already had a round of discussion at a closed-door session with industry leaders in Bangalore in mid-June. The industry has given him the wish list and also pleaded for increasing access to the fruits of biotech efforts to Indian citizens. The government which swears by the aam admi (common man) hopefully will listen to the industry’s suggestion. Chavan continues to wear his other hat as the minister in the Prime Minister’s Office (PMO) and hence will have additional influence over policy making in the current government.

The July issue has the second part of the 7th BioSpectrum-ABLE Biotech Industry Survey, focusing this time onBioSuppliers, the key companies that keep the biotech research going with their invaluable equipment, material and service support. There is some churn at the top with Waters emerging as the No.1 BioSupplier in 2008-09. The segment growth also mirrors the figures of the biotech industry closely.

The ranking table too has undergone some major changes due to more systematic data capture this year to reflect more accurately the business done by these companies with the life sciences institutions. Some of the industry leaders opted out of this year’s survey due to decline in sales numbers induced by the recessionary market conditions. The biotech industry continues to look forward to this exercise in benchmarking the critical enablers of the life sciences ecosystem. Hopefully, things will be back to normal by the time the next survey is done in June 2010.

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