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Biotech products in the pipeline

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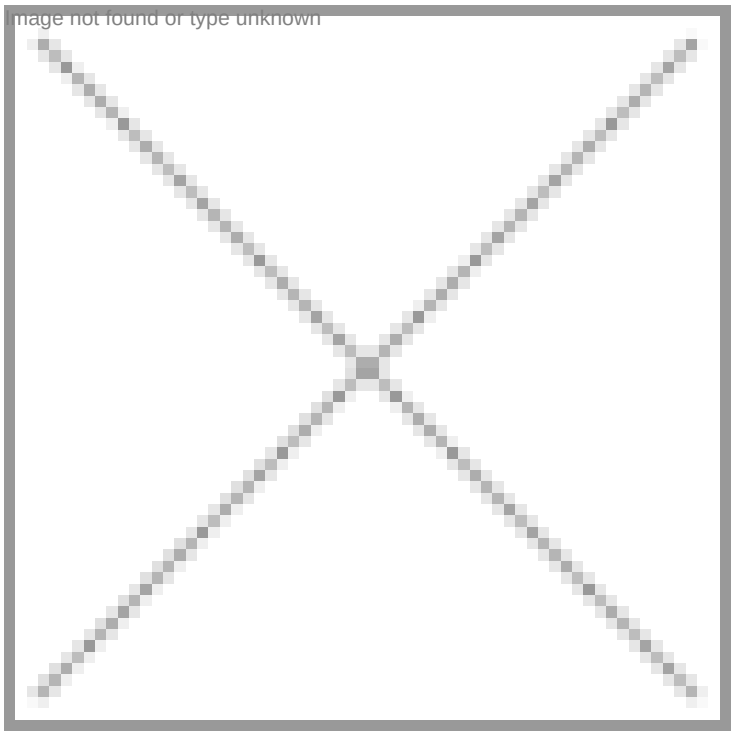

Biotech products in the pipeline

Sweet potato that resists disease

A new biotech sweet potato is being field tested in Kenya has built-in resistance to a devastating virus that consumes more than three-fourths of the annual harvest in Kenya. The new sweet potato could double yields, which could represent another step forward in the fight against global hunger.

Rice that can withstand droughts

A new variety of biotech rice developed by Cornell University researchers can withstand drought and thrive in marginal soil. Taking a clue from the hardy resurrection plant, a desert moss that can slow its activity down to near zero when water's scarce and then spring back to life with the arrival of water, the Cornell researchers took the genes that synthesize trehalose, a simple sugar that is produced naturally in a wide variety of organisms, including the resurrection plant and inserted it into rice.

Citrus trees to help preserve citrus industry

Biotech citrus trees now in development at Texas A & M University could help protect the Texas citrus industry from the brown citrus aphid that has already destroyed millions of citrus trees in Argentina, Brazil, Mexico and Venezuela. Currently

Mirkov is carrying out field tests, authorized by the USDA, on about 100 citrus trees modified to resist CTV in different ways.

Biotech papayas could aid subsistence farmers in Southeast Asia

The technology that led to the creation of a new biotech papaya that is credited with saving Hawaii's industry is now being deployed to help papaya growers in many areas of the developing world, including Southeast Asia. Led by scientists from Cornell and the University of Hawaii, researchers inserted a gene that made the plants resistant to the ringspot virus similar to the way a vaccine makes people immune to disease.

Tastier tomatoes to combat heart disease, cancer

Researchers at the US Department of Agriculture (USDA) and the Boyce Thompson Institute for Plant Research (BTI) at Cornell University have discovered the gene one scientist calls the "Holy Grail" for understanding tomato ripening and taste.

By shutting down the rin gene, USDA and BTI researchers have developed a way for tomatoes to stay on the vine longer so they develop more nutrients, color and taste. The longer a tomato stays on the vine, the more beneficial lycopene that is produced. Lycopene is an antioxidant that is believed to inhibit cancer and heart disease.

In another research lab, scientists at Purdue University and the US Department of Agriculture have developed a biotech tomato that contains as much as three and a half times the level of lycopene as conventional tomatoes.

New lettuce could help prevent heart disease

A researcher at the National Institute of Education in Singapore has used plant biotechnology to develop a new type of lettuce that is fortified with resveratrol, the ingredient in red grapes and red wine that is believed to help prevent heart disease and cancer by increasing levels of good cholesterol and lowering levels of bad cholesterol. Scientists hope to genetically enhance other fruits and vegetables including spinach, tomatoes, cabbage, watermelons and strawberries.

Healthier French fries with added starch

Researchers are working to boost the starch content in potatoes so that less oil will be absorbed when they are cooked to make French fries, potato chips and other foods made from potatoes. By inserting a gene into potatoes that improves the conversion of sucrose into starch, the starch content of potatoes has been increased by between 30 and 60 percent.

Heart-healthier soybean oil

A new variety of soybean developed by a Nebraska researcher could make thousands of consumer products healthier, according to biotechnology experts. The enhanced soybeans have been improved so they contain more of the "good" monounsaturated fats and less polyunsaturated fats and "bad" saturated fats.

Decaffeinated coffee bean plants

Today, the decaf coffee you sip at your local coffee shop was decaffeinated using chemicals and solvents that strip the caffeine out of the bean. But researchers from the Research and Education Centre for Genetic Information in Nara, Japan, outlined their method for producing enhanced coffee plants that repress the caffeine-generating genes that produce caffeinated coffee beans. The enhanced beans have 70 percent less caffeine. The new beans aren't likely to make it into consumer's mugs for at least another three or four years.

Plant-based vaccine to prevent cervical cancer

Bananas and potatoes have been developed that contain a vaccine for Human Papillomavirus (HPV), one of the most prevalent sexually transmitted diseases and the cause of almost all cervical cancer in women. Researchers with the University of Rochester have tested varieties equipped wit h the vaccine and work is now entering the third stage of clinical evaluation.

Vaccine in cherry tomatoes to fight RSV

Cherry tomatoes could one day be used to deliver a vaccine to prevent Respiratory Syncytial Virus (RSV), a potentially deadly respiratory virus that often attacks children. Researchers at the University of Illinois at Urbana-Champaign, aided by some funding by the USDA, are working on a way to genetically enhance cherry tomatoes and eventually apples to administer a vaccine to prevent the disease.

Source: www.whybiotech.com