Omega-3 oils from GM soybeans safe to eat: US FDA

October 28th, 2009 - 5:45 pm ICT by ANI

A genetically modified soybean that produces oil containing omega-3 fatty acids - recommended for heart and brain health - is safe to eat, says the US Food and Drug Administration.

The US Food and Drug Administration’s ruling means food companies can begin testing it in products such as margarine.

The modified plant oils could ease the pressure on fish stocks, currently the principal source of omega-3 fatty acids.

The soybean, developed by biotech giant Monsanto, is the first GM plant that has claimed health benefits for consumers, not just economic benefits to farmers.

Two other companies, BASF (PDF) and Du Pont, say they are not far behind.

BASF has developed GM canola plants that produce similar oils, while Du Pont makes them by fermenting microorganisms, and says it plans to launch its first ‘omega-3’ pill early next year.

Some plants, such as linseed, naturally produce an omega-3 called alpha-linolenic acid (ALA), and one way to increase the amount of omega-3 in our diet is to eat these plants or margarines and other foodstuffs that contain added ALA.

However, only a tiny amount of ALA is converted by the body into a fatty acid it can use, prompting some nutritionists to say the labelling on omega-3-enhanced margarines is misleading.

Fish oils are rich in two related omega-3s, docosahexaenoic acid (DHA), which is important for nerves and the brain, and eicosapentaenoic acid (EPA), which is vital for cardiovascular health.

BASF has inserted five genes from algae that naturally make EPA and DHA into the canola genome. Its product is still in development.

Monsanto has taken a different approach. It inserted two genes into the soybean genome, one from a plant related to primrose and one from a fungus. The modified soybean produces stearidonic acid, or SDA.
Monsanto says like ALA, SDA is converted into EPA in the body, but in much higher proportions - about a third.

Daniel Pauly, a fisheries specialist at the University of British Columbia in Vancouver, Canada, welcomes the move.

“Our stressed marine ecosystem would benefit from an alternative to fish oil as a source of omega-3s,” New Scientist quoted him as saying. (ANI)