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# bioplastics

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## Metabolix to develop advanced industrial oilseed crops for bioplastics

Metabolix, Inc., Cambridge, Massachusetts, USA, recently announced that it has initiated a program to develop an advanced industrial oilseed crop to produce bioplastics. Oilseeds are the primary feedstock for the more than 250 million gallons of biodiesel produced annually in the United States and the co-production of bioplastics promises to improve the economics of this crop industry.

As part of this initiative, Metabolix has established strategic research collaboration with noted oilseed experts at the Donald Danforth Plant Science Center, a leading not-for-profit research institute in St. Louis. Metabolix will assemble a team of scientists to establish a research and development presence in St. Louis. The team will work closely with Danforth's Principal Investigators Drs. Jan Jaworski, Edgar Cahoon and Joseph Jez. This collaboration is supported financially by a 2-year, \$1.14 million grant from the Missouri Life Sciences Trust Fund to the Danforth Center.

"The Danforth Center has extensive experience in oilseed technology. Combining their experience with Metabolix's patented technologies could expedite the commercialization of multiple products in oilseed crops. This technology is expected to play an important role in reducing our reliance on fossil fuels," said Dr. Oliver Peoples, co-founder and Chief Scientific Officer of Metabolix. "This initiative aims to create another biobased route to economically produce bioplastics and biofuels in high yields directly in non food crops."

Industrial oilseeds represent the third crop system to which Metabolix is applying its patented technology. The company is a leader in developing enhanced switchgrass, and is also developing sugarcane crops to co-produce biobased and biodegradable plastic within the leaves and stems of these crops to more economically meet clean energy and bioplastic needs globally.



## First-Ever Biodegradable PHBV Plastic Homegoods Products

The average plastic container purchased today will live more than 10,000 times longer than its original owner, but consumers who today purchase the latest bath accessories from design experts Design Ideas®, Springfield, Illinois, USA, can take comfort that these plastic goods, with proper disposal, will safely decompose within a matter of months.

"Design Ideas is the first design company to utilize EcoGen™ plastic in the production of decorative home goods," said Andy Van Meter, Design Ideas president. "We've listened to our consumers and, more and more, they are conscious of their purchase decisions' impact on the environment. We are happy to provide them a new choice they can feel good about."

EcoGen plastic is a PHBV (poly-3-hydroxy butyrate-co-valerate) "one of the five molecules that will change the world," according to Forbes Magazine. To create practical household applications using this biodegradable material, Design Ideas enlisted the expertise of Professor Hans Maier-Aichen, a design teacher at the Karlsruhe University of Arts and Design in Germany and an award winning plastics designer. Professor Maier-Aichen leads a team of engineers in Europe, China and America.

EcoGen can withstand temperatures of 110°C and will last indefinitely under normal conditions," said Dr. Jim Lunt, vice president of Sales and Marketing at Tianan, the enterprise partnering with Design Ideas to produce the raw PHBV material.

Design Ideas will be launching its first EcoGen line of bath products in April 2008. The bath items feature a bath cup, pump bottle, soap dish, toothbrush holder and waste can.