MBLX Logo

Metabolix Develops Three Methods For Biodegradable Polymer Production

Cambridge, MA, January 6, 1995 - Metabolix Inc. ("MBX") of Cambridge, Massachusetts, has begun commercializing patents, licensed under an exclusive agreement from the Massachusetts Institute of Technology (MIT), for the production of naturally occurring polymers, known as polyhydroxyalkanoates (PHAs).

The Company has developed technology which now allows these plastics to be produced in three different ways, namely, enzyme catalyzed polymerization, high throughput recombinant fermentation, and, genetically engineered plants. Each of these three systems provides significant benefits. The enzyme catalyzed method has the potential to provide very high purity PHAs for biomedical applications. The new fermentation process significantly lowers the current cost of production, and longer-term, production of PHAs in plants now offers the promise of costs competitive with today's petroleum derived polymers.

The PHA plastic materials range from those that resemble polypropylene to others that are more elastomeric. These materials can be processed using conventional polymer technology and offer significant advantages in certainareas of the commodity and specialty plastics markets where biodegradability is important. Potential application areas include: packaging; fast food service; and, disposable personal products such as diapers. The biodegradability of these materials is also potentially important to those who must comply with Annex V of the MARPOL treaty. The biocompatibility of PHAs is also expected to lead to applications in the medical and specialty chemical industries.