

Metabolix Mirel™ is a renewable, biodegradable bio-plastic material made from plant-derived sugars that is a perfect substitute for petroleum-based plastics in a variety of product applications.

Marketing challenges

- Because of its heat and moisture resistant properties, Mirel can replace many petroleum-based plastics
 - olefins and styrenics
 - ABS and polycarbonate
- These features position Mirel in a wide range of market applications
 - consumer goods
 - compost bags
 - durable goods
 - packaging
 - agriculture/horticulture
 - marine/aquatic
- Metabolix needed to select the best markets to pursue to maximize sales and earnings

Environmental problem company addresses

- The amount of plastic produced globally every year is staggering
 - one-half a trillion pounds per year
 - all are made from petroleum (natural gas and oil), fossil fuels with finite supplies
 - 10% of petroleum used in the world today goes into the production of plastics

Carbon Leaf Solution

- Evaluated, prioritized and selected target markets for company's Mirel™ bioplastic
- Assessed Mirel fit for customer applications based on physical properties
- Ranked markets to pursue, then selected two from among ten diverse segments spanning several processing technologies
 - blown/cast film
 - injection molding
 - sheet/extrusion
- Analyzed manufacturing costs and economics of using Mirel and Mirel blends versus competitive offerings for specific product applications
- Developed value propositions for target markets based on product benefits and customers' key buying factors
- Determined key competitors in each market by region based on manufacturing volumes and market share
- Created target customer lists based on
 - selected market/products to pursue
 - customers processing capabilities