

# Project Profile: AI Bio Helps Biotech Company Optimize Bio-Plastics Technology on Road to Pilot Plant

The market for biodegradable materials is rapidly becoming a \$30-billion global opportunity. Alberta-based biotech company, TerraVerdae BioWorks Inc., has developed a new process technology to create plastic from bio-based sources instead of petroleum sources.

The company's goal is to construct a pilot scale demonstration project to demonstrate this proven technology within three years. AI Bio has provided TerraVerdae BioWorks with a \$1.2 million Advanced Materials and Chemicals Program grant towards the company's nearly \$3.6 million project, to optimize its process technology prior to constructing the pilot scale plant.

"I think TerraVerdae BioWorks is going to provide Alberta with another company that is going to be in its green tech space," says Bill Bardosh, company CEO and founder. "This is a global market we are going after, but Alberta is going to be the focal point of our technical support."

Stan Blade, AI Bio CEO, says providing support to companies like TerraVerdae BioWorks to help advance their technology contributes toward advancing Alberta's overall bioeconomy.

"The more companies we have active in the bioindustrial marketplace, the faster Alberta can grow its bioeconomy," he says.

TerraVerdae BioWorks has established its research program at the Edmonton Waste Management Centre of Excellence Research Facility because it needs green methanol to use in its process technology. Edmonton is working with another company to convert residential waste into biochemicals such as methanol at the waste management centre located next to the research facility.



*Solid municipal waste from the Edmonton waste Management Centre may be used as feedstock in creation of bioplastic. EWMC, Edmonton, Alberta. June 2011  
Photo courtesy of Marie Cusack*



Bardosh says that licensed use of the company’s technology will ultimately allow companies not only to develop materials that over time will be competitive and provide alternatives to petroleum derived plastics, but produce plastics that will have characteristics that petroleum-based plastics currently don’t have.

“There is definitely a market for our technology,” he says, adding that TerraVerdae BioWorks has partnered with a number of global companies wanting to develop bio-replacements for existing product lines without sacrificing product performance.

For more information about AI Bio’s program, visit [www.bio.albertainnovates.ca/funding/advancematsandchems](http://www.bio.albertainnovates.ca/funding/advancematsandchems). For more information about TerraVerdae visit [www.terraverdae.com](http://www.terraverdae.com).

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