

February 27, 2012

## **Funding spurs new bioproducts from Alberta biomass Grants help bring new technologies to bioindustrial marketplace**

EDMONTON... Three companies developing industrial products from Alberta biomass in the agricultural, forestry and municipal waste sectors are now a step closer to the marketplace after receiving a total of \$4 million in grants from Alberta Innovates Bio Solutions (AI Bio).

Ceapro Inc., Radiant Technologies Inc. and TerraVerdae BioWorks, all with Edmonton-based projects, are the successful applicants to AI Bio's Advanced Materials and Chemicals Program. They will receive funding over the next three years to assist commercialization efforts including production and technological scale-up activities for projects totalling more than \$15 million.

"I believe we can build a bio-economy that rivals anything found anywhere else in the world," said Greg Weadick, Alberta's Minister of Advanced Education and Technology, which funds the program. "Today's announcement takes us one step closer to that goal. It expands our partnership among government, academia and industry as we work together to realize the commercial value of Alberta's fibre and other bio-based resources."

Among the challenges faced by companies developing new bioindustrial products such as cosmetics, personal-care products, pharmaceuticals and plastics is scaling up technological processes to commercial production.

More than 30 companies and researchers expressed interest in the program.

"These three companies are at a critical stage of innovation development," said Dr. Stan Blade, Chief Executive Officer of Alberta Innovates Bio Solutions. "Our financial support reduces the time it will take them to prepare for commercial production. The more companies we have active in the bioindustrial marketplace, the faster Alberta can grow its bioeconomy."

Alberta Innovates Bio Solutions is a provincial government agency that leads and coordinates science and innovation to grow prosperity in Alberta's agriculture, food and forestry sectors.

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**Background:** Three Edmonton biomass projects receive funding.

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### **Ceapro Inc.**

**Project summary:** Scale-up enhancements for a technology that creates oat-based ingredients for cosmetics and personal-care products.

**Description:** The project involves construction of a commercial-scale manufacturing plant allowing manufacturing of certain projects to be done in Alberta. The grant will support commercial-scale processing of oats and specialty oil crops into ingredients for cosmetics and personal-care products.

**Total project cost:** \$4,875,000, including AMCP grant of \$1,600,000.

**Location:** Edmonton.

### **Radiant Technologies Inc.**

**Project summary:** Construction of a production plant where a patented microwave technology will extract premium ingredients from agricultural, forestry and marine materials for use in pharmaceuticals, nutraceuticals, food and cosmetics.

**Description:** This project involves construction of a commercial-scale production plant in Edmonton where its clean technology process will extract premium ingredients for a variety of applications. Some of the raw materials suitable for this process include flax, canola, soybeans, corn, rice, borage, blueberries, vanilla, raspberries, cranberries, yew tree, buckwheat and algae, among others. Operated by a locally assembled staff, as well as a few employees who have relocated from the company's predecessor operations in North York and Whitby, Ont., the plant's patented Microwave-assisted Processing (MAP) technology has the potential to transform the ingredient-extraction industry using lower temperatures, fewer chemicals and producing higher yields than traditional processes.

**Total project cost:** \$7,400,000, including AMCP grant of \$1,200,000.

**Location:** Edmonton.

### **TerraVerdae BioWorks Inc.**

**Project summary:** Scale-up enhancements to a technology that uses micro-organisms to convert methanol derived from municipal waste, forestry or other waste sources into biodegradable plastic.

**Description:** This project involves refinements to new process technology. This approach of creating plastic from bio-based sources instead of petroleum sources avoids pressures on food and agricultural resources; limits impact on land use; and helps mitigate environmental effects including greenhouse gas, air, water and soil impacts. The market for biodegradable materials is rapidly becoming a \$30-billion global opportunity with the potential to produce significant and sustainable benefits for Alberta.

**Total project cost:** \$3,591,902, including AMCP grant of \$1,200,000.

**Location:** Edmonton Waste Management Centre of Excellence Research Facility.

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