

# ACCESS

## SASKATCHEWAN

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### A Prairie Innovation Success Story

by Bev Fast

Since opening in 1977 as a research facility for grains and oilseeds processing, **POS Pilot Plant Corporation** has steadily expanded to provide bioprocessing expertise to an international client base. The company's latest milestone came in September 2002, when Western Economic Diversification Canada (WD) announced funding of \$562,500 over two years to enable it to expand its small-scale bioprocessing facilities.

POS is the largest pilot plant operation of its kind in North America. It has five separate processing areas, 11 fully-equipped laboratories and a team of more than 80 specialists and support staff. It is a global leader in bioprocessing solutions, and currently serves clients in Canada and around the world, from Australia to Venezuela.

Mini-scale processing enables small and medium-sized clients to have their materials tested in small quantities, sometimes as little as one pail, to determine how they will perform under full-scale production conditions. This capability could play an important role in helping smaller firms bridge the gap between the laboratory and commercial production.

The 2002 assistance will help POS purchase new equipment to be used in processing a wide range of bioproducts – food ingredients, nutraceuticals, animal feeds, cosmetics, pharmaceuticals and industrial materials, such as bioplastics.

At the September news conference, POS President and CEO Robert Morgan welcomed the news. "This new funding will



*The capacity of this Crown Model V mini-scale solvent extractor at POS makes it ideal for projects requiring smaller quantities of materials to be processed.*

help us add equipment which will not only support the extraction and refining equipment we put in place this past year through WD investment, but also allow us to move into technologies which require less solvent use in the processing of biological materials."

The announcement adds to WD's existing investment in POS. In 2001, WD contributed \$635,000 to establish micro plant capabilities at the POS research centre in Saskatoon as part of the company's development of a \$4.7 million mini-scale processing capability.

For more information about POS Pilot Plant Corporation, call (306) 978-2800 or visit its Web site at: [www.pos.ca](http://www.pos.ca). 🍁

# Prince Albert Takes *Green* Approach to Wastewater Treatment



*Construction of the environmentally-friendly Prince Albert Biosolids Waste Facility.*

by Bev Fast

The City of Prince Albert's commitment to environmental friendliness is being put into action with a new approach to the disposal of biosolids or sewage sludge. Earlier this year, the **Prince Albert Biosolids Waste Facility** began operations at the landfill. It is one of the first of its kind in the province.

The **Canada-Saskatchewan Infrastructure Program (CSIP)** provided \$595,966 to help build the new \$2.2 million facility, which is part of the final phase of an expansion to the city's secondary wastewater treatment plant.

What makes the project unique is that it allows biosolids generated by the city's wastewater treatment plant to be

composted instead of incinerated – a benefit that reduces harmful emissions.

Facility Manager Alain Trudel says the process, in its simplest terms, uses heat and evaporation to turn biosolids into compost. "It's a natural process. We're just speeding things up by providing ideal conditions."

Inside the composting facility, biosolids are blended with wood fibres and small blocks, which provides a carbon source and porosity to the mixture. Recycled compost is also blended into the mix to provide the microbial "seed" needed to start the composting process. When the microbes go to work, they generate up to 70° Celsius of heat – and that's without any outside help.

"We add fresh air to keep the mix from getting too hot and to supply oxygen," Trudel says. "It takes about 17 to 20 days to complete one cycle."

After the material has been tested, it's ready for use as compost. Right now, the city plans to use the compost as cover to promote vegetation growth on the decommissioned landfill. Future plans call for its possible use as a soil conditioner along highways, boulevards, parks and more.

CSIP is a five-year program between the governments of Canada and Saskatchewan that is improving infrastructures in municipalities around the province. The program puts a priority on "green" municipal projects, such as enhancements to water and wastewater systems, solid waste management and recycling, and the energy efficiency of municipally-owned buildings. ♣

# Saskatchewan Synchrotron Institute Launched

by Bev Fast

The **Canadian Light Source (CLS)**, Canada's national synchrotron facility located at the University of Saskatchewan, is on schedule for 2004 completion. This makes news of an initiative to maximize its economic and scientific benefits to Saskatchewan all the more welcome.

In July 2002, Western Economic Diversification Canada (WD) and the provincial government announced matching contributions of \$500,000 to establish the **Saskatchewan Synchrotron Institute (SSI)**.

The SSI has a two-year mandate to bring Saskatchewan researchers, suppliers and businesses up to speed on the requirements and opportunities offered by the CLS. To do this, the SSI will co-fund workshops and seminars to introduce the applications of synchrotron radiation to Saskatchewan scientists, engineers and students from a broad range of industry and science sectors. It will also encourage the development of CLS-related learning experiences in schools.

"It is critical that Saskatchewan scientists, students, businesses and government agencies actively participate in the CLS to ensure that this province can fully share in the scientific, economic and social benefits," said Dennis Johnson, the institute's director.

Training is a key focus. Several programs provide matching funds for Saskatchewan-based researchers to travel to international synchrotrons for training. Programs include: work experience at foreign synchrotron facilities, synchrotron visits for Saskatchewan-based scientists who want to investigate the use of synchrotron radiation in their research,



*A look at the Canadian Light Source facility currently under construction.*

and travel programs to enable post-doctoral and graduate students to enhance their knowledge and experience in the application of synchrotron-based techniques.

By bringing their experience back home to share with colleagues and students, these researchers will lead the way in building a knowledge base in the use of synchrotron radiation here in Saskatchewan.

WD's involvement reflects the Government of Canada's commitment to supporting innovations that have the potential to develop regional economies, capitalize on new opportunities and access global markets.

The major stakeholders – and beneficiaries – of SSI programs will be Saskatchewan-based research organizations, industry and post-secondary institutions. The Saskatchewan Synchrotron Institute is encouraging applications from researchers in both industrial and academic settings. For more information, visit: [www.sasksync.ca](http://www.sasksync.ca). ♦

# Saskatchewan Students Benefit From WestLink's Internship Program

by Bev Fast

In September 2002, Western Economic Diversification's Secretary of State Stephen Owen was in Saskatoon to announce \$1.2 million for **WestLink Innovation Network Ltd.** The assistance allows the non-profit organization to continue facilitating technology transfer and commercialization in Western Canada, including through its innovative internship program.

Interns across Western Canada who joined the current **WestLink Technology Commercialization Internship Program** in 2001 have enjoyed a hands-on look at the complex process of technology commercialization, including several based in Saskatchewan.

"It's been a great experience," says Lorraine Barker, who has a Bachelor of Science degree and is working on an MBA. In her placement with Bioriginal Food & Science Corporation, where she's involved in market research, Barker is finding her university education coming in handy. "The internship is providing the opportunity to obtain relevant work experience. I've learned a great deal in terms of understanding the needs of different businesses when it comes to technology and commercialization."

Bachelor of Commerce Honours graduate Ryan Wilkes is currently at the University of Regina's Industry Liaison Office, following two placements in Winnipeg. He says the program has been a huge benefit. "I don't think I could have established such a large network of contacts so quickly. We have been able to meet a wide range of industry people from across Western Canada, both through our training events and our placement companies."



*WestLink officials and Saskatchewan students with Secretary of State Stephen Owen.*

For Diane Harms, a Bachelor of Science Honours in Biochemistry who had already been working in research labs, WestLink offered the opportunity of a lifetime. "The program came along at an opportune time. I tell people it has basically accelerated my career by 10 or 15 years, because I'd thought about going into technology transfer, but down the road."

Harms is currently at Foragen Technologies Management Inc. "Through WestLink, you work with excellent people in their area of expertise in each placement, but you're not limited to that one area. You see many perspectives in each of the three rotations, so in a way, you get a little bit of everyone's best practices."

For more information about the WestLink Innovation Network and the internship program, call (403) 974-8470 or visit their Web site at: [www.westlink.ca](http://www.westlink.ca).☘