

MEDIA RELEASE

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SIAS research could benefit Canadian beer industry

Students, faculty perform tests on barley for R&D firm

November 19, 2013 – SIAS is collaborating on a research project that will determine how technology can better identify premium barley kernels, which are essential to producing quality beer.

Working with Spectrum Agricultural Inc., a Manitoba-based research and development firm, SIAS will examine how barley kernels with favourable malting qualities can be cost-effectively sorted from lower-quality barley kernels by using acoustic and optical measuring methods. The research could lead to an increase in the availability of higher-value malting barley for both domestic use and export.

Spectrum Agricultural has already developed patented optical-mechanical technology for sorting infected wheat kernels from sound wheat kernels. It hopes to do the same for barley, but because barley hulls limit what can be identified in the underlying kernel, the technology must be adapted.

Students in SIAS's CAD/CAM Engineering Technology program, under the supervision of instructor Roy Eichendorf, will be researching the critical measurements and robustness of barley. "The students will gain valuable experience in thorough documentation, instrumentation set up and advanced sorting technology," says Eichendorf. "Applied research projects like this give our students the opportunity to apply their skills to real-world situations."

SIAS's Office of Applied Research and Innovation (OARI) facilitated the partnership by securing a \$25,000 grant through the College and Community Innovation program of the Natural Sciences and Engineering Research Council of Canada (NSERC), enabling Spectrum to access applied R&D expertise at SIAS.

"There is a sizeable amount of data to be collected and analyzed in our work with SIAS," says Dr. David Prystupa, president of Spectrum Scientific Inc., the parent

company of Spectrum Agricultural. "By partnering with SIAST, we can significantly reduce our time to market."

Students will learn the primary grade determinants and other important quality characteristics of malting barley. They will use this knowledge to inspect, document and store hundreds of individual barley kernels. The detailed information on each kernel will be used to set the operating parameters for the inspection instruments on the sorting machine.

SIAST is Saskatchewan's primary public institution for post-secondary technical education and skills training. A member of Polytechnics Canada, SIAST offers apprenticeship training and certificate, diploma and degree programs. The institution serves 26,000 distinct students through campuses in Moose Jaw, Prince Albert, Regina and Saskatoon, and through extensive distance education opportunities.

Spectrum Agricultural Inc. is a subsidiary of Spectrum Scientific Inc., a privately held research and development company focused on spectroscopy and allied materials sciences. It is based in Pinawa, Manitoba.

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