NEWS RELEASE

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PAMI WORKING TO IMPROVE PULSE CROP STORAGE AND PROFITABILITY

HUMBOLDT—As the tonnage, and value, of pulse crops grows, so does the need for better information to help producers protect their investment when the grain is in the bin. It is a knowledge gap Prairie Agricultural Machinery Institute (PAMI) is working to fill with a two-year study into the management of stored pulses.

"There has been some baseline work done over the years to establish drying and wetting characteristics of pulses, but it's never been validated or widely adopted," said Dr. Joy Agnew, project manager with PAMI Agricultural Research Services in Humboldt. "Given the amount of pulse crops we see today, it's critically important updated information is available to producers."

The goal of the PAMI research is to validate equilibrium moisture content (EMC) charts for peas and lentils, to assess airflow rates on natural air drying, and to determine resistance to airflow in pulses, information that will help producers minimize the risk of over drying, she said. An additional goal is to collect baseline data on how repeated wetting and drying cycles affect seed quality.

The first year of the two-year project, funded by Canada and Saskatchewan governments through Growing Forward 2, a federal-provincial-territorial initiative, is complete, said Agnew. It involved testing various airflow rates in bench-scale bins of both lentils and peas, but also had an important on-farm component.

"We had Saskatchewan producers who allowed us to install gauges in eight fan-equipped bins, and then they submitted data whenever they ran their fan, or filled or emptied the bin," she explained. The information collected included static pressure across the fan, grain depth and volume, and moisture content.

Next year, the bench-scale research will be repeated to confirm the year-one findings, and the on-farm trials will be expanded. "We have no trouble finding co-operating producers for this work," said Agnew. "Our research at PAMI is always driven by producer need and they're very anxious to get these results so they can make sound storage decisions that mitigate any downgrading of their pulse crops."

A preliminary look at year-one data shows "airflow rate definitely affected drying rate," she said. "We're also seeing that kernels from the middle of the bin had a poorer germination rate than those near the plenum but again, next year's trials will confirm these and other findings."

Agnew reiterated that up-to-date information is the best way to avoid spoilage and maximize profits.

"Given that the three Prairie Provinces produced over eight million tonnes of lentils and peas in 2016, and that the cost of over drying can be 20 cents per bushel or more, the potential lost revenue runs into the tens of millions of dollars every year. With this study, we want to give producers confidence they're making appropriate storage management decisions and reducing their risk of loss."

PAMI is a full-service applied research and engineering agency specializing in all aspects of machinery. They are owned by the provinces of Saskatchewan and Manitoba and serve agricultural, industrial, and defense and security sectors.

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NOTE: Supporting photography and/or a prepared 250 word story available upon request