CROPS—UI’s potato, wheat, oilseed breeders win innovation awards in aid of Idaho ag

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RESEARCH ON POTATOES, WHEAT, AND OILSEED CROPS bring international attention to University of Idaho College of Agricultural and Life Sciences (CALS) researchers who help Idaho agriculture remain competitive in global markets.

The University of Idaho Technology Transfer Office honored three plant researchers in November with Innovation Awards—potato agronomist Jeff Stark, wheat breeder Robert Zemetra, and canola and mustard breeder Jack Brown.

The awards recognized researchers who gained plant variety protection or patents for their inventions in fiscal year 2010. Others were honored for issuing licenses to businesses to market plant products developed by University of Idaho. “We are extremely proud of all three plant scientists,” said John Hammel, dean of the College of Agricultural and Life Sciences and director of the Idaho Ag Experiment Station. The varieties they developed are critical to Idaho’s No. 1 industry, agriculture,” Hammel said. “Through their efforts, and those of our faculty throughout Idaho, the College of Agricultural and Life Sciences provides critical research and development capability and serves as an important economic engine.”

**Wheat.** Robert Zemetra’s Brundage wheat variety ranks as Idaho’s most popular variety—10 percent of all wheat grown in Idaho this year. The new award recognizes Zemetra for developing an herbicide tolerant Clearfield cultivar of the Brundage wheat so popular among growers.

**Potatoes.** Jeff Stark was honored for his work with Classic Russet, Alpine Russet, and Clearwater Russet potato varieties. Classic Russet has shown significant potential for the fresh potato market, while Alpine Russet and Clearwater Russet are being evaluated by the processing industry as potential replacements for Russet Burbank, currently the industry standard.

**Oilseed.** Jack Brown was honored for issuing a license to Wyoming-based AAP to commercialize eight of his mustard, canola, and rapeseed varieties. In 2010, he took steps to move two new oilseed cultivars to market—Kodiak, a brown-seeded Oriental mustard, and Arriba, a canola. Brown’s two best known mustards can control weeds and nematodes when used as biopesticides. Since Brown’s breeding program releases a decade ago, he estimates that licensing revenues have generated about $800,000 back to his research.

Crop storage research aids ag profits

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THE LENGTH OF TIME THAT POTATOES AND ONIONS can be stored before they rot or lose their fresh or processed uses can impact both producer and processor bottom lines by millions of dollars.

University of Idaho agricultural researchers study ways to prolong storage of crops including potatoes and onions. These studies help weed out promising new crop varieties that fail storage tests before growers commit large acreages to them.

“We critically evaluate six new potato varieties each year in our storage trials and highlight best management practices for these varieties” says Nora Olsen, UI Extension potato specialist at Twin Falls. “Management concerns with a variety can be identified and therefore lessen the burden by the grower for potential losses,” adds Olsen.

**Same with Onions.** Mike Thornton, superintendent at the UI Parma R&E Center, completed 3 years of long-term cold storage trials for new onion varieties. If Idaho’s commercial onion growers can extend storage time to 11 months—from the current 9—it could mean $20 million to local industries. Thornton’s studies found new varieties that did well for 10 months. But hurdles remain in developing cultural practices for these new cultivars to promote the larger bulb size required by fresh and process markets.

Chicory, a new crop option for Idaho?

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DOES CHICORY HAVE POTENTIAL as a new commercial crop for Idaho growers? The grower-owned Amalgamated Sugar Company LLC is investigating the possibility and has grown and harvested chicory during the past few years.

The Idaho-based sugar producer, whose cooperative processes sugar beets grown on 180,000 acres in Idaho, Oregon, and Washington, is funding research by Don Morishita, superintendent of the University of Idaho’s Kimberly and Twin Falls Research and Extension Centers.

Chicory contains an inulin-based soluble fiber, different from sucrose-based sugar beets. Inulin is a natural prebiotic fiber that is utilized with increasing demand in hundreds of applications in the food industry including yogurt and ice cream.

Morishita’s team seeks herbicides to control weeds in potential chicory crops and also to control volunteer chicory plants that might surface the year after it is harvested. It could be several more years before Morishita’s team finds just the right approved herbicide.

DID YOU KNOW?

1.7 BILLION POUNDS AMOUNT OF SUGAR PRODUCED FROM IDAHO SUGAR BEET CROPS IN 2009. THAT WAS UP 54% FROM 2008.