

Pocatello trials pave way for new food safety technology

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Dolan Falconer, CEO of ScanTech Sciences, shows his company's research and development facility at Idaho State University in Pocatello, where it refined electronic cold pasteurization technology. Treatments kill pathogens and pests while extending shelf life of food, according to testing.

ScanTech Sciences invested about \$4 million to build a research and development facility inside ISU's Research and Innovation in Sciences and Engineering Complex, where the company honed a proprietary food-treatment process called electronic cold pasteurization.

The company's method uses an electronic linear accelerator to shower food with accelerated electrons, killing pests and pathogens while dramatically extending shelf-life, explained ScanTech CEO Dolan Falconer.

ScanTech's planned 100,000-square-foot commercial facility, to be built in McAllen, Texas, should be operational by mid-summer, Falconer said. He said the plant's conveyor system and "horn" — which works like a shower head that emits electrons — were refined in Pocatello.

"That work provided the proof of concept for the commercial build (in Texas)," Falconer said.

Falconer said the Pocatello facility has also been used, both by ScanTech and in grant-funded research involving various partners, to develop protocols for treating specific commodities.

Falconer said USDA is mulling a grant proposal to study electronic cold pasteurization on pecans, and several retailers and food producers plan to request additional grants for next year. He said further testing in Pocatello will help establish commodity-specific electronic cold pasteurization trade protocols, and he sees especial promise for potatoes and apples.

The Texas plant will have the capacity to process 10 to 20 truckloads of produce per day, with the conveyor designed to run at 120 feet per minute. The plant would treat produce entering the country from Mexico, as well as exports from the U.S.

"This improves the economics of exporting," Falconer said.

Falconer said the company already has enough commitments from customers to run the plant at capacity, and investors want a second and third plant to be built as soon as possible.

He said the company may eventually automate the Pocatello facility to add commercial business, in addition to continued research and development.

In testing in Pocatello, ScanTech has proven it can consistently deliver the precise dosage of electrons needed to preserve food without damaging it, said Rocky Starns, ScanTech's chief technology officer and vice president of engineering and manufacturing. He said treated potatoes have retained at-harvest quality after a year in storage, including sprout suppression, and strawberries have maintained the same smell, texture and taste after a month in the refrigerator.