

Lucas and Jolene Wagoner pay for groceries at Safeway for a grocery delivery Aug. 6.

#### **GROCERY**

Continued from Page 1B for convenience."

Jolene said they will pick up from any grocery store, but will also pick up orders from other type of stores and restaurants. To get a delivery from multiple stores the cost is \$5 per additional

WeGoShop does offer some discounts, such as \$5 off your

first delivery and if you get 5 deliveries the sixth one has no delivery charge.

Customers can pay in person with a check, cash or credit card. WeGoShop aims to get groceries delivered the day after a delivery is scheduled, at a time of the customer's choosing.

Contact Max Denning at 541-963-3161 or mdenning@ lagrandeobserver.com.

#### **Grocery Outlet raises \$5,000**



Randy Willson, co-owner of the La Grande Grocery Outlet, with his wife Michelle, examines food purchased for the Union County Food Bank with \$5,054 donated by its customers between June 27 and July 31. La Grande Grocery Outlet conducted the drive while participating in the eighth annual national Grocery Outlet Bargain Market 'Independence from Hunger Campaign'

# Small indoor greenhouses let apartment dwellers grow veggies

**By Christopher Rugaber** AP Economics Writer

You don't need a green thumb to grow vegetables indoors.

On the contrary, there are plenty of indoor greenhouses that take the work out of growing plants, from the amount of water they get to the right dosage of light.

One of these indoor greenhouses - or automated growing systems, as they're referred to — was created by six engineering students at Rice University. Aside from planting the seeds, the greenhouse does pretty much everything. It's about the size of a small bookshelf and operates anywhere indoors.

'We didn't want it to take up too much space in an apartment," said Harrison Lin, a student who worked on the project. He said they wanted to "make it not intrusive, but it could still grow a useful amount of plants."

There are push buttons on the device to designate how much light and water the plants get, and to determine the temperature inside it. If you're feeling extremely hands-off, there are three pre-set options: leafy greens, roots and herbs. Select what you're growing and go about your business.

"In the most ideal circumstance, you plant your seeds, put on the correct settings and walk away until it's ready to harvest," said Jack Kaplan, another student on the team.

Most indoor growing systems are hydroponic, meaning plants are planted in water mixed with mineral nutrients, but this one uses a soil trough for planting. LED bulbs provide the plants with the red-blue spectrum of light needed to grow. The only maintenance is refilling the water tank every three weeks.

The students built three of these indoor greenhouses as a senior project. They were installed at the HSB Living Lab, a residential research facility at Chalmers University of Technology in Sweden.

Growing food indoors, often in small spaces like city apartments, has become popular.

In 2017, indoor gardening was listed as a popular trend in a report by Garden Media Group, a marketing group that tracks industry. Apartment dwellers have less room for a traditional garden but still want fresh veggies.

Businesses are noticing the expanded interest in at-home gardening.

Aerogarden, owned by Scott's Miracle Grow and the Hawthorne Gardening Company, is another automated in-home growing system on the market. It's automated, hydroponic systems range in size and price point — the smallest retails for \$99 and holds four plants, while the largest sells for nearly \$700 and grows 24. Sales have grown over 20 percent year over year since 2013, and last



Indoor greenhouses offer those who live in apartments a chance to grow their own vegetables.

year's sales grew by more than 30 percent, according to company numbers.

Automated systems take the guess-work out of gardening, said Clydette Alsup-Egbers, an associate professor of plant science at Missouri State University. The biggest reason that indoor plants die, she said, is over-watering. If an automated system is used, that risk is eliminated.

"People who are new to growing don't know what they're doing," she said. "A kit makes them feel more confident."

Automating everything is what commercial greenhouses have done for years, said Julie Bare, an estate gardener at Meadowbrook Farm, located in Jenkintown, Pennsylvania, and owned by the Pennsylvania Horticultural Society.

Bare helps grow some of the hundreds of plants on

display in the renowned Philadelphia Flower Show. To do this, greenhouses are necessary; the show is held annually in March, which means short days and cold temperatures.

Still, even the most seasoned gardener can run into problems with indoor vegetables.

A few years ago, George Rebeiro Brooks Jr., a retired mechanical engineer, tried growing lettuce in pots inside at his home in Tewksbury, Massachusetts. Brooks. who owns Green Hollow Orchards, has grown apples, tomatoes and other plants for local farmers markets for more than 45 years. But his indoor lettuce turned out limp, not crispy.

"It's just my guess, but I think it didn't have the right air circulation indoors to make it toughen up," he

## Testing finds flaws with electronic car safety systems

By Tom Krisher

Cars and trucks with electronic driver assist systems may not see stopped vehicles and could even steer you into a crash if you're not paying attention, an insurance industry group warns.

The Insurance Institute for Highway Safety, in a paper titled "Reality Check," issued the warning Tuesday after testing five of the systems from Tesla, Mercedes, BMW and Volvo on a track and public roads. The upshot is while they could save your life, the systems can fail under many circumstances.

"We have found situations where the vehicles under semi-automated control may do things that can put you and your passengers at risk, and so you really need to be on top of it to prevent that from happening," said David Zuby, the institute's chief research officer.

Among the scariest found by the Virginia-

based institute was with the system in two Tesla vehicles, the Model S and Model 3. The institute tested the system with the adaptive cruise control turned off, but automatic braking on. At 31 miles per hour, both Teslas braked and mitigated a crash but still hit a stationary balloon. They were the only two models that failed to stop in time during tests on a track.

Yet when the adaptive cruise control, which keeps a set distance from cars in front, is activated, the Teslas braked earlier and gentler and avoided the balloon, the agency said.

On the road, the institute's engineers found that all the vehicles but Tesla's Model 3 failed to respond to stopped vehicles ahead of them, the institute said.

The systems tested, in the Teslas, BMW's 5-Series, the Volvo S-90 and the Mercedes E-Class, are among the best in the business right now and have been rated "superior" in previous IIHS tests. Zuby said the systems

do increase safety but the tests show they are not 100 percent reliable.

Many of the scenarios discovered by IIHS are covered in the vehicles' owner's manuals, which tell drivers they have to pay attention.

But Zuby said not many people read their owner's manuals in detail. Even though the systems have names like Tesla's "Autopilot" or Volvo's "Pilot Assist," they are not selfdriving vehicles, Zuby said. "They will help you with some steering or speed control but you really better be paying attention because they don't always get it right," he

Many of the cars' lane-centering systems failed, especially on curves or hills. The BMW, Model S and Volvo "steered toward or across the lane line regularly," requiring driver intervention, the IIHS said.

The IIHS-affiliated Highway Loss Data Institute analyzed Tesla insurance losses to find that automatic braking and other

crash avoidance features on the Model S were helpful in reducing property damage and bodily injury claims. But adding "Autopilot," which includes automatic steering and lane-changing, only helped to lower collision claims.

The institute, which in the past has developed tests that made the auto industry strengthen vehicle structures, also said the California crash of a Tesla Model X SUV in March that killed a man shows the limits of the technology and the tendency of some drivers to misuse it.

The group also said a pedestrian death in Arizona involving an Uber autonomous vehicle shows the dangers of testing selfdriving vehicles on public roads.

IIHS is developing ratings for driver assist systems and eventually will make recommendations on regulations for fully autonomous vehicles, Zuby said.

Messages were left Monday seeking comment from the automakers.

#### **SIMPLOT**

Continued from Page 1B technology from being used unethically. The technology allows scientists to make precise changes to the genome of living organisms and has wide-ranging applications for improving plant food production and quality.

"The issues are about getting the right kind of food produced in the right kind of way," said Neal Gutterson, chief technology officer at Corteva Agriscience, DowDuPont's agriculture division. "It's important to be able to produce enough

food for the nine to 10 billion people who will be on the planet in 30 years."

The gene editing technology is called CRISPR-Cas9, the first part an acronym for "clustered regularly interspaced short palindromic repeats."The technology speeds up the traditional process of breeding generation after generation of plants to get a certain desirable trait, saving years in developing new varieties that are as safe as traditionally developed varieties, scientists say.

Essentially, if an organism's genome is made

analogous to a large manuscript, CRISPR-Cas9 allows scientists to edit specific words in the manuscript using a "search and replace" function. One of the remaining challenges, scientists say, is getting the complete genome for particular food crops. Or, to use the analogy, to not only have the complete manuscript but to have it translated so scientists know where to make the edits.

The CRISPR-Cas9 technology is so new that in March the U.S. Department of Agriculture, which regulates how food is produced,

issued a statement clarifying its oversight of foods produced with gene editing. "Under its biotechnology regulations, USDA does not regulate or have any plans to regulate plants that could otherwise have been developed through traditional breeding techniques," the agency said.

Simplot markets products in more than 40 countries, and ithas major operations in the United States, China, Canada, Australia and Mexico. The company, which is a top producer of avocados grown in Mexico and sold in the U.S., is perhaps best

known for potatoes.

The company has already used other genetic techniques to adapt genes from wild and cultivated potatoes to produce commercially sold potatoes that resist bruising and late blight, which caused the Irish Potato Famine and continues to cause problems for potato farmers. Gene editing is expected to further the company's expertise in potatoes.

"That's part of our vision for Simplot — to be the knowledge leader for potatoes," said Susan Collinge, vice president of plant sciences at Simplot, where she supervises about 95 plant scientists.

Idaho produces 13 billion pounds (6 billion kilograms) of potatoes annually — a third of the nation's potatoes worth about \$1.2 billion.

Gene editing likely wouldn't result in new varieties of potatoes for at least five years, and probably longer before the potatoes could be sold commercially, Collinge said.

### **BRIEFS**

Continued from Page 1B prior year. Increased earnings were primarily the result of continued loan growth and a refund of premiums previously paid to the Farm Credit System Insurance Corporation. Total capital increased 3.9 percent during the year to \$2.5 billion.

"So far in 2018, our customermembers are generally seeing good

growing conditions and positive returns, as evidenced by the continued strong performance and growth of our loan portfolio," said Phil DiPofi, President and CEO. "However, we are seeing pockets of stress in some commodities where production costs have increased and commodity prices have declined due to unfavorable market conditions. We're closely monitoring how the current volatility in the world trade situation and

pending Farm Bill issues will impact our customers."

Northwest FCS is an \$11 billion financial cooperative providing financing and related services to farmers, ranchers, agribusinesses, commercial fishermen, timber producers, rural homeowners and crop insurance customers in Montana, Idaho, Oregon, Washington and Alaska.

For more information, go to northwestfcs.com.

#### Are you looking for fun? Join one of our winter leagues!

#### **STARTING DATES:**

Sunday Night Mixed August 26th, 6:30 p.m. Coffee Cup League August 29th, 10 a.m. Wednesday Night Mixed August 29th, 6:30 p.m. Industrial League August 30th, 7 p.m. Monday Night Football September 10th, 6:30 p.m. Saturday Mixed League date & time TBD





