

Study: Consumers prefer gene-disrupting pesticides over GMOs

Researchers study ‘willingness to pay’ for technologies

By MATEUSZ PERKOWSKI
Capital Press

Consumers prefer gene-disrupting “RNAi” biopesticides over genetically engineered crops, but they don’t much like either technology, according to a recent study.

Researchers at the University of Arkansas conducted the study by asking consumers about their “willingness to pay” for conventional rice sprayed with insecticides, rice that’s genetically modified to withstand pests and rice treated with an RNAi biopesticide.

The biotech rice and RNAi biopesticide described to consumers aren’t commercially available, so those possibilities were hypothetical.

In the U.S., survey participants were willing to pay \$7.62 more for a five-pound bag of conventional rice over RNAi-



Courtesy of Walt Mahaffee/USDA

Scientists experiment with RNA interference biopesticide on spotted wing drosophila flies. A survey found that respondents prefer conventional pesticides over biopesticides.

sprayed rice and \$12.56 more for conventional rice than genetically engineered rice.

In other countries — Canada, Australia, France and Belgium — consumers also required a greater discount for genetically modified rice than for RNAi-sprayed rice, though the monetary amounts varied by nation.

RNAi, or RNA interference, works by disrupting the expres-

sion of genes that are critical to an insect’s ability to survive, while biotech crops are often engineered to contain a bacterial gene that kills caterpillar pests.

Researchers explained to survey participants that both options were unlikely to be unhealthy for humans, while conventional pesticides have varying levels of toxicity. Nonetheless, the respondents

preferred conventional rice.

Wayne Hunter, an entomologist with USDA who studies RNAi, said such biopesticides are natural products but opponents have the upper hand in spreading fear about the technology on the internet.

“Even though it’s safer, I don’t think the word is getting out,” he said.

Critics commonly claim that USDA and other institutions that have found RNAi is safe are beholden to corporate interests, undermining findings about the technology, Hunter said.

It’s part of a pattern of people being afraid of scientific progress, he said.

“The negative story gets more press, the negative story is more emotional,” Hunter said. “The horror story is the story you tell around the campfire.”

The Center for Food Safety, a nonprofit critical of biotechnology, believes the study’s authors gave participants an overly rosy description of both genetic engineering and RNAi.

The descriptions played down the risks and limitations of the technologies while exaggerating their value, said Doug Gurian-Sherman, director of sustainable agriculture for the group.

For example, RNAi pesticides could harm beneficial insects related to pests, such as different types of beetles, he said.

If the technology had been accurately described, “the results could easily have been even more negative for RNAi and GE,” Gurian-Sherman said.

It’s also troubling that organic and agroecology methods weren’t offered as options, he said. “They are never discussed as alternative options in these surveys.”

It’s unfortunate if consumers are losing trust in scientists, but in the past, industry-backed scientists pronounced products such as tobacco safe and were later discredited, he said. “My guess is that has filtered into public perception.”

Expert: Trade needs to be priority for new administration

By CAROL RYAN DUMAS
Capital Press

The lack of discussion on important issues in U.S. agriculture in this election cycle is disconcerting to many in agriculture.

Hoping to fuel that discussion, the Farm Foundation hosted a forum last week on ag priorities for the next administration — and included trade as a top issue.

Trade agreements are notoriously complex and there are inevitable burdens that come with globalization, but very few of the problems people are talking about are actually attributable to trade agreements, said Craig Thorn, a partner in DTB Associates.

“I regard trade agreements as being essential to the U.S. economy. They improve our ability to adapt to changes in the economy, to modernize and to cope with globalization,” he said.

Heard often in the trade debate is that trade agreements have led to a big increase in the U.S. trade deficit, but the opposite has always been true. Since 2002, the U.S. has cut its trade deficit almost in half with FTA partner countries and nearly doubled its trade deficit with the rest of the world, he said.

“There’s no ambiguity at all regarding the value of trade agreement for U.S. agriculture,” he said.

NAFTA, the most vilified trade agreement of all, illustrates that point. There’s been a huge increase in U.S. agricultural trade with Mexico and Canada going in both directions, with imports and exports almost parallel, he said.

“I think that’s a good indication of the quality of the trade agreement,” he said.

It’s possible to make similar arguments with every single trade agreement the U.S. has entered into. In every case, they will be positive and represent real economic growth and increases in efficiency in U.S. ag production, he said.

“Take that away or modify it in any significant way, and it would have serious negative consequences,” he said.

Another reason to continue negotiating trade agreements is because the rest of the world is doing it. In addition, countries can throw up illegal barriers to trade that can be dealt with through enforcement of negotiated trade agreements, he said.

“For the health of our economy, and especially our agricultural economy, we need more trade agreements not fewer, and we need stronger rules not weaker rules,” he said.

Trade priorities that should be on the next administration’s agenda include passing the Trans-Pacific Partnership and aggressively pushing new bilateral and regional agreements, he said.

TPP is not a perfect agreement, but it’s safe to say it’s going to be a beneficial agreement for the U.S. economy as a whole and the ag sector in particular, he said.

“It’s undeniable that the defeat of TPP in Congress would be disastrous for U.S. trade policy. It would be decades, I think, before countries would get back into a negotiating room with the United States if TPP goes down,” he said.



Tim Hearden/Capital Press

Organic Valencia oranges from California are displayed. As the Valencia harvest winds down, growers are preparing for a navel orange crop that is expected to be slightly smaller than last season’s.

Navel orange growers expecting lighter crop, higher prices

By TIM HEARDEN
Capital Press

SACRAMENTO — An estimate that the 2016-17 navel orange crop will be significantly smaller isn’t a surprise considering the abundance of last season’s production, an industry insider says.

Navel orange growers are gearing up for an 81-million-carton crop, down from the 88 million cartons weighing 1.76 million tons that came out of groves in a weather-bolstered 2015-2016 season, according to the National Agricultural Statistics Service office here.

“We came off a really big crop last year and the season went fairly long,” said Bob Blakely, vice president of the Exeter-based California Citrus Mutual. “The longer after bloom the harvest goes, the more it affects the following year’s crop. So this is typical of what we’d see.”

Citrus Mutual — a growers’ advocacy group with about 2,500 members — has quarreled with NASS estimates in the past, including two years ago, when the group thought the agency’s initial forecast of an 81 million-carton crop in 2014-15 was too high and would depress prices paid to growers.

As it was, growers that season produced 75 million cartons — below the revised NASS estimate of 78 million — as many farms were in their second straight year of not receiving any federal surface water because of the drought and protections for fish.

Last season, growers ex-

ceeded revised NASS estimate by 5 million cartons as warm weather in the summer of 2015 bolstered the sugar content and winter rains helped the fruit gain in size.

The overall average price of \$12.29 a carton last season was enough for most growers to make money, although some with later varieties and lower utilization rates may have struggled, Blakely said.

In a survey of 577 groves in July and August, NASS found an average fruit set per tree of 384, above the five-year average of 334, and estimated that the average Sept. 1 diameter was 2.21 inches, slightly below the five-year average of 2.25 inches.

Blakely believes the smaller crop will bring prices up for growers, though it’s too soon to know how much.

“It’s supply and demand,” he said, adding that much would hinge on mandarin production, which has seen gains in recent years and was up 16 percent last season from 2014-15 levels, according to a USDA citrus fruits summary published this month.

The NASS navel orange report included conventional, organic and specialty oranges, including Cara Cara and Blood orange varieties.

The survey comes as Valencia orange producers are in the home stretch of their harvest of a 21 million-acre crop, which would be 11 percent larger than last year’s utilization. Any rebound in production would be good news for a Valencia industry that produced 39 million cartons in 2001-02, according to NASS.

Retired OSU professor donates timberland to benefit rural school

By ERIC MORTENSON
Capital Press

PHILOMATH, Ore. — The forestry program at Philomath High School, already considered robust for a small school district, will be the chief beneficiary of 20 acres of timber donated by one of the pioneering figures in agricultural and resource economics.

Emery N. Castle donated the Castle Family Forest near Wren, Ore., to the Philomath Community Foundation, which will lease it to the school district. Philomath High has a four-year forestry and natural resources program that includes course and field work in reforestation, timber inventory and harvest practices.

“We teach them to be good stewards of the land,” forestry instructor Simon Babcock said.

The timberland donated by Castle, primarily Douglas fir, will serve as a land laboratory, Babcock said, and will be available for use by all students in the district. He envisioned science or other classes at all grade levels being able to use the site as part of their learning.

Babcock said the first work for students will be to rock an existing road to provide better access into the site.

The land and timber, located along Kings Valley Highway, was appraised at about \$160,000.

The donation was an idea pressed by Van Decker, a former cattle rancher who has a 250-acre tree farm in the area and, at 77, still works for a local logging company. Decker took classes from Emery Castle at Oregon State University in the 1960s, impressed the professor with a paper on water economics, and has remained friends with his mentor over the decades.

Decker also teaches a timber accounting class at Philomath High and hosts students at his shop and lets them practice timber cruising on his land. He wrote a proposal to Castle about donating the land, took him to visit Babcock’s class-



Eric Mortenson/Capital Press

Emery Castle, 93, described as one of the nation’s most influential agricultural economists, donated 20 acres of timber for use by the Philomath School District’s forestry and other programs. Castle taught for many years at Oregon State University, headed a Washington, D.C., resource issue think tank and now is retired and living in Portland.

es and arranged for a student video about forestry skills they were learning.

Castle, now 93 and living in Portland, had his doubts at first.

“I was not terribly enthusiastic about it,” he said. “I was not opposed to doing something like that, I just wasn’t sure it was going to pay off in the long run.

“I was thinking of the students,” he added. “I wondered if they really should be spending a lot of time on something of a vocational nature instead of tearing into their academic work and maybe mastering that a little bit better.”

But Castle didn’t hesitate long. He acknowledged there is a segment of students who are better served by vocational or hands-on learning. He said some might find an opportunity in forestry, otherwise they might “float by” in school.

“I grew up through agriculture, I went to college in agriculture, then left and got into a broader field (economics),” he said. “I would like for something like that to happen to them.”

Castle had another concern, as well: his daughter, Cheryl Rogers.

“She was the one that would lose in the long run,” Castle said. “She’s an only child and would have an inheritance there.”

Rogers, an accountant, gave the proposal a rigorous

examination and fully supports the donation. She said the broader educational use of the land is a tribute to her late mother, Merab Castle, who taught speech, drama, English and grammar in rural Kansas.

“It’s really important to my dad that this be recognized as something not just done for him, necessarily, or by him, but done as a memorial to the great teaching my mother did,” she said.

Her dad was no slouch either. He grew up poor during the Depression, served as a radioman aboard a B-17 bomber during World War II and arrived at Oregon State in 1954 to begin his academic career. He taught and did research for more than 50 years, and in addition to teaching spent 10 years as vice president, then president, of a Washington, D.C., think tank, Resources for the Future.

Bruce Weber, emeritus professor and director of the Rural Studies Program at OSU, said Castle is “one of the most influential agricultural economists in the United States.”

Working with fellow OSU prof Manning Becker, Castle wrote a farm management textbook that educated generations of students, Weber said. Castle started OSU’s Rural Studies program, and funded the Castle Endowment in Resource and Rural Economics to support faculty work in that area.

WSDA fines man for spraying; orchard claims \$5.4 million loss

Pesticide applicator disputes allegations

By DON JENKINS
Capital Press

A Washington pesticide applicator has agreed to a \$2,200 penalty and 20-day suspension to settle allegations he let herbicides drift from potato fields to apple trees, purportedly causing more than \$5.4 million loss to Broetje Orchards in Walla Walla County.

Luz Martinez Jr. disputed the allegations, but accepted the settlement negotiated between

the state Department of Agriculture and his employer, Eagle Spraying Service of Othello.

The penalty is the largest of six fines levied this year by WSDA officials for pesticide drift.

Eagle Spraying owner Rolando Garza told the Capital Press that he’s puzzled by how the chemicals could have drifted so far and caused such extensive damage, but he said he decided to settle with WSDA rather than insist on an administrative hearing.

“I did not want bad feelings between me and the state, and I didn’t want to hire any lawyers,” Garza said.

Originally, WSDA proposed suspending Martinez’s license for 36 days. In negotiations, WSDA agreed to shorten the suspension, but held firm on the penalty.

Garza said his insurance company has yet to settle with Broetje and that he’s unsure about his businesses’ future. He said he started the business 17 years ago and has six workers.

Efforts to reach Broetje were unsuccessful. The family-owned company, based in Prescott, has more than 6,000 acres of apples and cherries in Washington, according to its website.

According to WSDA’s investigation, Martinez sprayed two potato fields Sept. 22, 2015, near Wallula with a mix of AIM EC and Reckon 280 SL herbicides.

The potato fields were 50 feet and 1,500 feet, respectively, from two Broetje orchards, according to WSDA.

On Oct. 5, Broetje contacted WSDA and reported that “red spots” were appearing on apples.

The spots were not there when the harvest began Sept. 25, but were noticed three days later, according to Broetje.

The company reported that the drift affected approximate-

ly 702 acres in two orchards a mile apart, according to WSDA.

A WSDA investigator reported that damage to apples was most severe in the orchard closest to the potatoes.

WSDA tested 14 samples from the two orchards, but could not detect residue of the herbicides.

The department did detect residue in the potatoes fields and in the 50 feet between the orchard and potato field.

Martinez told the investigator that he had used a hand-held meter and cellphone app and measured the wind speed at 3 to 5 mph.

“Basically, it was a beautiful day. We started at 8 in the morning,” Garza said. “If we couldn’t spray that day, we could never spray.”

Washington State University’s Wallula weather station along the Columbia River and about 2 miles southwest of the potato fields recorded wind speeds of 5.9 to 10 mph, with gusts up to 14.2 mph, according to WSDA. The wind was blowing toward the orchards.

Garza said that based on his experience he’s not surprised that wind speeds would differ between the potato fields and the weather station by the river.