Capital Press file

A familiar sign bordering organic farms is shown in this photo.

Oregon's organic acreage grows, number of farms shrinks

By MATEUSZ PERKOWSKI
Capital Press

PORTLAND — Organic acreage has surged in Oregon even as the number of organic farms has shrunk in recent years, according to federal data.

The total number of organic farms in the state decreased 18 percent, from 657 to 525, between 2008 and 2014, according to the USDA National Agricultural Statistics Service.

Meanwhile, organic acreage nearly doubled in Oregon, from 105,600 to 204,000, the NASS report said.

The agency found a sharp decline in the number of farmers who earn less than $25,000 in annual revenue, while the number of those with sales of more than $250,000 grew, said Dave Losh, Oregon's state statistician for NASS.

"The smaller folks are having a harder time and the larger operations are getting bigger," Losh said, noting that the trend is occurring in overall agriculture as well.

In some cases, organic farms may not have gone out of business but opted to drop their organic certification for financial reasons, said Chris Schreiner, executive director of Oregon Tilth, an organic certifier.

At the time of the survey, a USDA cost-share program that helped pay for certification costs had lapsed, so some growers decided the organic label was no longer financially feasible, he said.

That program has since been restored with funding from the 2014 Farm Bill.

Even so, the 2008 survey was conducted shortly before the financial crisis, so some farms might have shut down during the ensuing economic downturn, said Ivan Maluski, policy director of Friends of Family Farmers, a nonprofit group.

"I think the recession during that five-year window had a lot to do with it," he said.

The acreage increase is likely the result of larger conventional farms, as well as dairies with pasture, converting to organic production due to the associated price premium, Maluski said.

"As the organic industry matures, they tend to get bigger," said Lindsey Eng, ODA's director of market access and certification, which certifies organic farms.

Oregon has the fifth highest number of organic acres in the country, following California, Montana, Wisconsin and New York.

The state is also near the top of the list in sales of organic farm products, with $237 million in 2014.

Organic premiums have also attracted farmers who grow feed crops such as Timothy hay and alfalfa and who tend to have bigger operations than those growing vegetables, she said. Organic hay production in the state grew more than 20 percent, to 34,700 acres, between 2008 and 2014, according to NASS.

"It's a relatively low barrier to entry because they grow well in Oregon without a lot of inputs," Eng said.

Oregon's acreage growth has bucked a national trend, as overall U.S. organic acreage contracted nearly 10 percent to 3.7 million acres between 2008 and 2014.

Regulatory problems were considered the primary production challenge nationally, with 34 percent of organic growers naming regulatory problems as their top concern.

Laura Masterson, an organic farmer and chair of the Oregon Board of Agriculture, said she was surprised that the number of organic farmers had dropped and that growers were worried about regulatory problems.

"When the price is in the right place, a lot of those production challenges are resolved," she said.

Organic farming states, 2014

How Oregon ranks among the top states by number of organic farms, organic acres and sales:

Top 10 states by ...

... Organic farms (number)

1. Calif.	2,805
2. Wis.	1,228
3. N.Y.	917
4. Wash.	716
5. Penn.	679
6. Iowa	612
7. Vt.	542
8. Ohio	541
9. Ore.	**525**
10. Maine	517

... Organic acres (thousands)

1. Calif.	687
2. Mont.	318
3. Wis.	229
4. N.Y.	213
5. Ore.	**204**
6. N.D.	135
7. Minn.	133
8. Wyo.	129
9. Texas	127
10. Idaho	125

... Organic sales ($ millions)

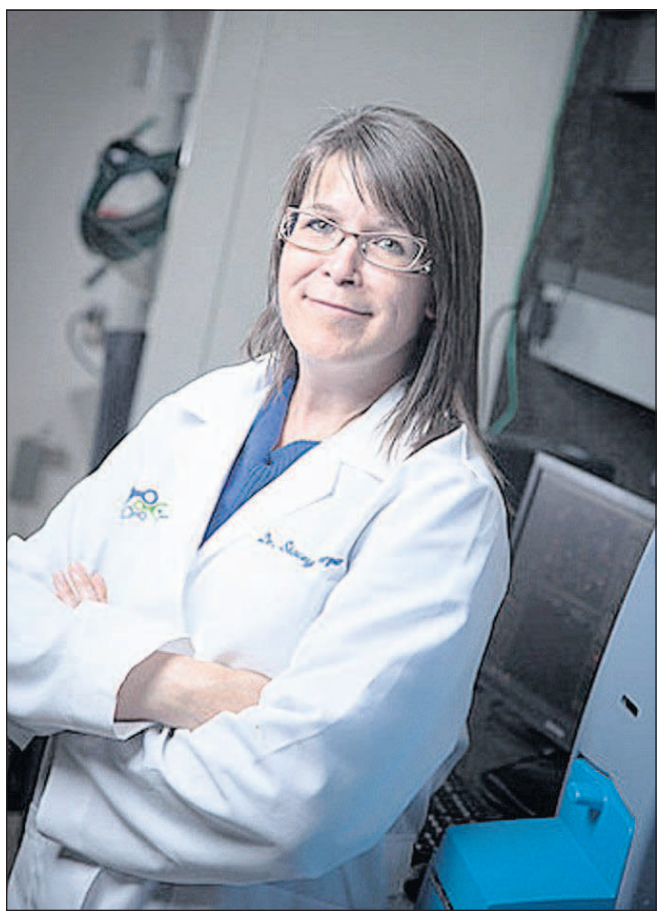
1. Calif.	$2,231
2. Wash.	515
3. Penn.	313
4. Ore.	**237**
5. Wis.	201
6. Texas	199
7. N.Y.	164
8. Colo.	147
9. Mich.	125
10. Iowa	103

Source: USDA NASS

Alan Kenaga/ Capital Press

Study suggests nanotechnology may have unintended impact on pesticides

By ERIC MORTENSON
Capital Press



Courtesy of Oregon State University

Stacey Harper, who has dual appointments in OSU's agriculture and engineering programs, is testing the toxicity of nano-pesticides.

Researchers believe nanotechnology is changing agriculture and many other industries, but in some cases our ability to manipulate molecule-sized bits of material may be jumping ahead of what we know about the impact.

An ongoing nanopesticide study at Oregon State University showed encapsulated particles of pesticide were more toxic to laboratory fish embryos than the pesticide's active ingredient alone. The results raise questions about nanopesticide toxicity, the effect of encapsulation, application rates, handling, labeling and how nanopesticides may persist in soil and water.

Environmental toxicologist Stacey Harper and OSU doctoral student Alicea Meredith are conducting the research. Harper said companies using nanotechnology to manufacture pesticides should be aware their product might be behaving differently than expected.

Harper said her advice to pesticide producers is "Proceed with caution and try to understand how applying that technology to the formulation may alter what you think you know about that ingredient."

Harper said the majority of pesticides produced today contain nano-sized material that has been engineered and encapsulated. The scale is incredibly small. For reference, there are about 25 million nanometers in an inch, according to the National Nanotechnology Initiative. A page of this newspaper is about 100,000 nanometers thick.

Scientists believe that shrinking the size of pesticide droplets and encapsulizing them in biodegradable plastic provides better surface area coverage on crops, more efficient pest control and, because of the capsule, longer-lasting, time-released protection. That combination could significantly reduce the amount of pesticides used on crops, according to multiple sources.

But the OSU research indicates the encapsulated nanopesticides may be more toxic than expected. Harper and Meredith exposed the embryos of zebrafish to six progressively stronger doses of an off-the-shelf pesticide. Two groups received the doses in different-sized capsules; a control group received the same doses but in an uncapsulized version of the pesticide's active ingredient.

The fish embryos over five days showed the effect of pesticide poisoning, with malformations, tremors, paralysis and death, according to an OSU news release. But exposure to the active ingredient alone, without encapsulation, was "significantly less toxic."

Researchers use zebrafish because they are translucent and it's easier to spot malformations or other internal damage.

Harper said the toxicity finding was a surprise. The EPA tests active ingredients for toxicity, but doesn't test the commercial, encapsulated products. As a result, toxicity screenings may underestimate the environmental impact of pesticides, according to OSU.

Harper said she recently talked to EPA regulators about the agency's risk assessment and they indicated additional scrutiny might be necessary. "So that's great, as far as I'm concerned," she said.

Harper said the "next big thing" in nanopesticide research is how they transport through the soil and into aquatic systems.

Researchers say nanotechnology could have multiple uses in agriculture and food systems. Food packaging, for example, could be engineered to detect contamination.

Harper's research is funded by the USDA's National Institute of Food and Agriculture and by OSU's Agricultural Research Foundation.

2014 Carlton fire victims sue DNR; attorney investigates 2015 fires

By DAN WHEAT
Capital Press

Dan Wheat/Capital Press

Kent Stokes checks ear tag of cow killed in Finley Canyon near Twisp, Wash., in the Carlton Complex fire in July 2014. The Stokeses lost 250 head of cattle and 90 percent of their grazing but are not part of the lawsuit against the state.

OKANOGAN, Wash. — An attorney who has filed a lawsuit against the state Department of Natural Resources for its handling of the 2014 Carlton fire is investigating claims regarding the 2015 Chelan and Okanogan fires.

Alex Thomason, an attorney in Brewster and Seattle, said he has talked to dozens of victims of the 2015 fires interested in suing and is looking for more information from people who think they have claims of negligence in the ways fires were fought or not fought.

"We need eyewitnesses and people who lost property. They may or may not have legal basis for a claim, but we will investigate," Thomason said, adding people should contact him at his Brewster office at 509-689-3471.

On Nov. 17, Thomason and attorneys with the Seattle law firm of Pfau Cochran Vertetis and Amala, filed a lawsuit of behalf of plaintiffs David and Deannis Schulz and John Clees in Okanogan County Superior Court.

The lawsuit claims the state Department of Natural Resources was negligent in failing to fight the Golden Hike fire, one of four fires in the Methow Valley started by lightning the morning of July 14, 2014, that merged and became known as the Carlton Complex fire. The fire burned 256,108 acres, caused two deaths, killed about 980 cattle, destroyed 277 primary residences, 50 cabins, 500 miles of fencing, millions of board feet of timber and thousands of acres of grazing for several years.

Claims from more than 200 people total more than $75 million, Thomason has said. Initially, he planned one class-action lawsuit, but instead filed on behalf of the Schulzes and Clees. If that is successful it will establish state liability on the rest of the claims, he said.

The party with the single greatest losses, but not party to the lawsuit or claims against DNR, is the Gebbers family with the death of patriarch Danny Gebbers and estimated losses in timber, cattle, fences and orchards of $15.4 million to $17.8 million.

The lawsuit states the Golden Hike fire initially was confined to a few acres on DNR land and surrounding residents promptly notified the DNR of the fire's existence and location.

Despite early notice, DNR was "negligent in responding" and when it did respond "was negligent in containing the fire," the lawsuit states.

The agency abandoned fire lines early in an evening and did not return until morning, refused the assistance of local residents and volunteers who knew the geography and failed to keep all available equipment and personnel on fire lines, the suit states.