

People & Places

‘Dream team’ builds better turfgrass

By SIERRA DAWN MCCLAIN
Capital Press

CORVALLIS, Ore. — Across the drought-stricken Western U.S., some cities and states have temporarily banned watering “non-functional turf,” including lawns. Other municipalities, domestic and international, are restricting fungicide use on landscapes.

These and other developments have cast a sudden spotlight on turfgrass management, an important and often-overlooked field of study, and the innovators behind it — people like Alec Kowalewski, Oregon State University turfgrass specialist.

BeaverTurf, OSU’s turf management program, is exploring how to grow turfgrass on sports fields, golf courses and parks in a way that’s more environmentally and economically sustainable.

Kowalewski leads a “dream team” of Ph.D. researchers who are exploring how to grow turfgrass with less water, testing which cultivars are disease-resistant, experimenting with fungicide alternatives, irrigating with wastewater, documenting which varieties are safest for livestock consumption and exploring how management practices can impact carbon sequestration.

“I’m very proud of the team I have. It’s truly a world-class team,” said Kowalewski.

He and the researchers, like game pieces on a checkboard, were standing on an experimental plot with hundreds of square test blocks,



Sierra Dawn McClain/Capital Press

Researchers stand on test plots of various turfgrass cultivars. From left are Clint Mattox, Cole Stover, Wrennie Wang, Alec Kowalewski, Chas Schmid, Emily Braithwaite.



Alec Kowalewski

each containing a different grass cultivar.

The researchers under Kowalewski say he’s not only an innovator but a teacher and adviser who empowers other innovators to shine.

This year, Kowalewski said he’s excited about many of the projects his team is taking on.

One project looks at soil health and the potential to sequester carbon in turfgrass systems. Emily Braithwaite, faculty research assistant, said recent climate extremes have created a “sense of urgency” in the turfgrass industry for ways to limit emissions and be more sustainable.

The project uses a carbon-capturing device, tracks how much carbon plants absorb while photosynthesizing and explores how management practices impact carbon storage.

Tests so far have found that grass is healthier and stores more carbon if it’s mowed frequently — about once a week — to four inches tall rather than taller or down to stubble.

In watering, too, frequency matters. Irrigating a plot four times a week at just a quarter-inch leads to healthier, better carbon-storing turf than a plot that’s watered excessively but less often.

“See how much greener this is,” said Wrennie Wang, research associate, pointing at a block.

This “less water, more

often” concept can save water during droughts.

The researchers are also interested in irrigating turf with effluent water, or “graywater,” non-sewage wastewater that comes from sources such as sinks and showers.

Clint Mattox, another research associate, is exploring alternatives to fungicides. Mattox is testing less toxic products, including sulfur and mineral oils.

Research associate Chas Schmid is leading a study in the National Turfgrass Evaluation Program for which turfgrass seed breeders submit entries. Schmid tests the entries, looking for which cultivars “rise to the top” as most disease-resistant, sustainable and attractive.

“It’s like a beauty pageant for turf,” said Schmid.



Western Innovator

ALEC KOWALEWSKI

Age: 41

Hometown: Augusta, Mich.

Education: Ph.D., crop and soil sciences, Michigan State University, 2010; M.S., crop and soil sciences, Michigan State University, 2006

Occupation: Associate professor and turf specialist at Oregon State University; advises students and post-grad researchers

Another project will study endophytes, microbes that live in some turfgrasses.

Endophytes can make grass more disease-resistant, which is great for landscaping. But grass with high endophyte levels can be toxic to livestock. Although grass seed breeders have a general idea of which cultivars have endophytes, a comprehensive study has never been done. This fall, the researchers will document endophyte levels in hundreds of cultivars.

Kowalewski said that he, as “facilitator” for the researchers, is excited to see where the projects go.

Student artists showcase Oregon agriculture

Winners chosen for Oregon AITC calendar

By GEORGE PLAVEN
Capital Press

SALEM — Thirteen student artists ages 6-12 will have their artwork featured in this year’s Oregon Agriculture in the Classroom calendar, with 10,000 copies distributed statewide.

The winners were selected from 1,327 entries and honored during a reception Aug. 29 at the Oregon State Fair, where they also received a \$50 prize and certificate.

Oregon AITC holds its calendar art contest annually for students from kindergarten through sixth grade, celebrating Oregon’s agricultural diversity. The winning entries for 2021-22 depict



Oregon AITC

Winners of the 2021-22 Oregon Agriculture in the Classroom calendar art contest were honored during a reception Aug. 29 at the Oregon State Fair.

scenes featuring everything from Christmas trees, pumpkins and tulips to corn, berries and livestock.

Each month in the calendar showcases a different student’s artwork and includes a fact about Oregon agriculture.

“The calendar contest is a great project for teachers and students,” said Jessica

Jansen, Oregon AITC executive director. “It gives them an opportunity to teach and discuss about the bounty and beauty of Oregon agriculture and incorporate art into their classrooms.”

Joe Colby, a sixth-grade teacher in Condon, Ore., said the contest — along with virtual field trips organized by Oregon AITC —

OREGON AITC CALENDAR ART CONTEST

Winners for the 2021-22 Oregon AITC Calendar Art Contest include:

- Cover — Elin Casper, fourth grade, Eugene.
- September — Tiel Morgan, sixth grade, Gresham.
- October — Stella Holley, second grade, Portland.
- November — Leif Hagborn, second grade, Fields.
- December — Kate Janzen, fifth grade, Happy Valley.
- January — Isaiah Cota, fifth grade, Redmond.
- February — Emma Defoe, fifth grade, Junction City.
- March — Claire Chou, second grade, Portland.
- April — Gabriela Leikam, fifth grade, McMinnville.
- May — Grayson Warner-McGee, fourth grade, Portland.
- June — Peyton Cline, fifth grade, Wolf Creek.
- July — Ariana Langsather, sixth grade, Aumsville.
- August — Carson Wade, sixth grade, Condon.

help students to realize what is grown across Oregon, and understand where their food originates.

Calendars are free for Oregon teachers, and can be purchased online for \$4 at www.oregonaitc.org/shop.

No bull: Scientists potty train cows to use ‘MooLoo’

Researchers in Germany have potty trained cows, all in the name of science

By SETH BORENSTEIN
AP Science Writer

Turns out cows can be potty trained as easily as toddlers. Maybe easier.

It’s no bull. Scientists put the task to the test and 11 out of 16 cows learned to use the “MooLoo” when they had to go.

Just like some parents, the researchers used a sweet

treat to coax the cows to push through a gate and urinate in a special pen. And it took only 15 days to train the young calves. Some kids take quite a bit longer.

“The cows are at least as good as children, age 2 to 4 years, at least as quick,” said study senior author Lindsay Matthews, an animal behavioral scientist at New Zealand’s University of Auckland who worked with colleagues on the tests at an indoor animal research lab in Germany.

What started with a half-in-jest question on a New Zealand radio talk show about the very real problem of livestock waste resulted in a seri-

ous study published Monday in the journal *Current Biology*. And it wasn’t just a “wow, this could be fun” academic question. Massive amounts of urine waste is a serious environmental issue, Matthews said.

Urine contains nitrogen, and when mixed with manure becomes ammonia, which is an environmental issue with acid rain and other problems, Matthews said. It can also taint the water with nitrates and create the airborne pollutant nitrous oxide, he said.

And cows do pee a lot. A single cow can produce about 8 gallons of urine a day, Matthews said. In 2019, nitrous oxide comprised 7% of all

the U.S. greenhouse gases, according to the Environmental Protection Agency.

“I am not surprised they can train calves to urinate in set locations, but I am surprised no one has demonstrated this before,” said Duke University animal cognition scientist Brian Hare, who wasn’t part of the research. “The critical question is can it and will it scale?”

If it could be done, toilet training animals makes it easier to manage waste products and reduce greenhouse gas emissions, said Donald Broom, a professor of animal welfare at the University of Cambridge in England.

At the lab in Dummerstorf, Germany, the researchers mimicked a toddler’s training, putting the cows in the special pen, waiting until they urinated and then giving them a reward: a sweet liquid of mostly molasses. Cows do have a sweet tooth, Matthews said. If the cows urinated outside the MooLoo after the initial training, they got a squirt of cold water.

Then in two sets of experiments, the researchers let the Holstein cows roam about the indoor facility. When they had to urinate, 11 of them pushed into the pen, did their business, and got their sweet reward.

CALENDAR

Submit upcoming ag-related events on www.capitalpress.com or by email to newsroom@capitalpress.com.

THROUGH SEPT. 26
Washington State Fair: Washington State Fair Events Center, 110 9th Ave. SW, Puyallup, Wash. Website: <https://www.thefair.com/>

SATURDAY SEPT. 25
Spokane Conservation District’s 80th Birthday: 10 a.m.-4 p.m. 4422 E. 8th Ave., Spokane Valley, Wash. Tour the district’s new facilities, Vets on the Farm seed saving class, scavenger hunt, chil-

dren’s activities, food trucks and other offerings. Website: <https://bit.ly/3AimLFJ>

TUESDAY SEPT. 28
Washington State Dairy Council 88th annual meeting (virtual): 9:30-11:30 a.m. The event will include speakers from the National Dairy Council and the Washington Dairy Council. Website: <https://bit.ly/3lqeSrf>

Public Lands Council 53rd Annual Meeting (online): On behalf of the Public Lands Council Board of Directors and Executive Committee, we invite you to attend the 2021

Public Lands Council Virtual Annual Meeting on Tuesday, Sept. 28. While we originally planned to see you in Seaside, Ore., due to increased COVID-19 cases, we have made the difficult decision to move the annual meeting to a virtual format. Website: <https://bit.ly/3sR4NH0>

OSU Extension’s Seed and Cereal Crop Production meeting (online): 8:30 a.m. Agenda: a look at Oregon Wheat Commission activities from Amanda Hoey, chief executive officer for the Oregon Wheat Commission and the Oregon Wheat Growers League; winter and spring wheat variety recom-

mendations from OSU Extension cereal scientist and assistant professor Ryan Graebner; and a report on best practices for strong yields and pest management in wheat from OSU field crops agent Nicole Anderson. The session is free but you must register to get the credit. Registration: <https://beav.es/39h>

TUESDAY-SATURDAY SEPT. 28-OCT. 2
World Dairy Expo: Alliant Energy Center, 1919 Alliant Energy Center Way, Madison, Wis. Among the many events held are contests and a trade show. Website: <https://worlddairyexpo.com>

worlddairyexpo.com

WEDNESDAY SEPT. 29

Production Animal Consultation Summit (in person and online): Lincoln Marriott Cornhusker Hotel, Lincoln, Neb. The summit focuses on issues and opportunities in the beef industry. This year’s event will include presentations and discussions on carcass quality, selling more beef, global meat trade and the role of antibiotics. Website: www.pacd-vms.com



Capital Press
EMPOWERING PRODUCERS OF FOOD & FIBER
Established 1928

Capital Press Managers

Joe Beach Editor & Publisher
Anne Long Advertising Director
Carl Sampson Managing Editor
Samantha McLaren Circulation Manager

Entire contents copyright © 2021
EO Media Group
dba Capital Press

An independent newspaper
published every Friday.

Capital Press (ISSN 0740-3704) is
published weekly by EO Media Group,
2870 Broadway NE, Salem OR 97303.

Periodicals postage paid at Portland, OR,
and at additional mailing offices.

POSTMASTER: send address changes to
Capital Press, P.O. Box 2048 Salem, OR
97308-2048.

To Reach Us

Circulation 800-781-3214
Email Circulation@capitalpress.com
Main line 503-364-4431

News Staff

Idaho
Carol Ryan Dumas 208-860-3898

Boise
Brad Carlson 208-914-8264

Western Washington
Don Jenkins 360-722-6975

Eastern Washington
Matthew Weaver 509-688-9923

Oregon
George Plaven 406-560-1655
Mateusz Perkowski 800-882-6789
Sierra Dawn McClain 503-506-8011

Designer

Randy Wriughthouse 800-882-6789

To Place Classified Ads

Telephone (toll free) 800-882-6789
Online CapitalPress.com/classifieds

Subscriptions

Mail rates paid in advance
Easy Pay U.S. \$4/month
(direct withdrawal from bank
or credit card account)

1 year U.S. \$65
2 years U.S. \$115
1 year Canada \$230
1 year other countries call for quote
1 year Internet only \$52
Visa and Mastercard accepted

To get information published

Mailing address:

Capital Press
P.O. Box 2048
Salem, OR 97308-2048

News: Contact the main office
or news staff member closest to you,
send the information to
newsroom@capitalpress.com
or mail it to “Newsroom,” c/o Capital Press.
Include a contact telephone number.

Letters to the Editor: Send your
comments on agriculture-related public
issues to opinions@capitalpress.com, or
mail your letter to “Opinion,” c/o Capital
Press. Letters should be limited to
300 words. Deadline: Noon Monday.

Capital Press ag media

CapitalPress.com
FarmSeller.com
MarketPlace.capitalpress.com
facebook.com/CapitalPress
facebook.com/FarmSeller
twitter.com/CapitalPress
youtube.com/CapitalPressvideo

Index

Markets 10
Opinion 6

Correction policy

Accuracy is important to Capital Press
staff and to our readers.
If you see a misstatement, omission or
factual error in a headline, story or photo
caption, please call the Capital Press news
department at 503-364-4431, or send
email to newsroom@capitalpress.com.
We want to publish corrections
to set the record straight.