TWCA® Quarterly

2020 Volume 7 Issue 2

TWCA / 225 3rd Ave SW / Albany, OR 97321 / ADDRESS SERVICE REQUESTED

Sustain *Ability*

True sustainability means environmentally responsible, economically viable and agronomically sound.

Turf Merchants provides you with the ability to maintain Tall Fescue inventory with varieties that sustain with water savings and high quality turf.

As a founding member of TWCA, we support efforts to preserve water, and offer five different cultivars qualified by TWCA as part of our Aqua Wise® program.

With top NTEP rated turfgrasses and proven performers, TMI has the Tall Fescue seed to support your production:

- **2nd Millennium**
- **3rd Millennium SRP**
- **4th Millennium SRP**
- **Aquaduct**
- **AquaVita**
- **Aztec II**
- **Bonsai 2X**
- **Rhambler SRP**
- **Rhambler 2 SRP**
- **Traverse**
- **Traverse 2 SRP**
- **Turf Gem 2**

*SRP - Self Repair Potential through rhizome activity

Learn more from your turfgrass seed distributor, or visit our website.

TMI
TURF MERCHANTS, INC.

33390 Tangent Loop
Tangent, Oregon 97389
Phone: **(541) 926-8649**
Toll Free: **(800) 421-1735**
Fax: (541) 926-4435
E-mail: *info@turfmerchants.com*
www.turfmerchants.com

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Turfgrass Water Conservation Alliance
225 3rd Ave SW Albany OR 97321
info@tgwca.org

“We cannot be separated in interest or divided in purpose. We stand together until the end.”

- Woodrow Wilson

MISSION STATEMENT

TWCA is committed to water conservation and dedicated to preserving the ecological benefits of turfgrass in the managed environments

OFFICERS	
President	John Cochran
Vice President	Lucas Solis
Secretary	Kirsten Pick
Treasurer	Kyle Atkinson

STAFF

Program Administrator
Jack Karlin

Administrative Assistant
Evanne Gutierrez

Brand Ambassador
Dr. Michael (Mike) Kenna

-MAKE EVERY DROP COUNT-

These are wild times. Frightening times of uncertainty beset by an adversary that we cannot see and sometimes don’t even know if it is present. More than anything, we at TWCA want our members to be safe, healthy, and protected. What that looks like is different for everyone; for some of us, it means quarantined at home with our family, for others it means going out to work.

In many places landscape services are rightly determined to be essential to the health and wellbeing of the community. This means a consistent income for many members but an increased exposure to the pandemic. Whatever healthy and safe looks like for your family we ask everyone to try to be a little kinder, a little more compassionate, and a little more patient, because this is a world wide problem.

TWCA is working to create a response strategy to ensure financial stability for our cooperators, protect our trials and ensure the integrity of the process.

TWCA is a members driven organization; if there is something you would like to see in the TWCA Quarterly, please contact Evanne Gutierrez at evanne@tgwca.org or Jack Karlin at jack.karlin@tgwca.org.


TURFGRASS WATER CONSERVATION ALLIANCE
TWCA

TPI 2020 International Conference Recap

Courtesy of Allie Shriver, TPI Membership & Marketing Manager

TPI's 2020 International Education Conference & Field Day attracted more than 800 people who enjoyed a whirlwind week on February 17th – 20th in Orlando, Florida. Attendees spent a week together learning, networking, catching up with old friends, and meeting new ones. Attendees came from 36 states and 11 countries including South Africa, Norway, Iraq, Australia, Canada, the United Kingdom, and even Japan to take part in the vigor and excitement of this event.

Monday Funday

The week kicked off Monday morning with over 100 participants at the Rootin' Tootin' Clay Shootin' event to benefit The Lawn Institute (TLI). Attendees compete against each other and tested their shooting skills by taking aim at clay targets on a scenic swampy course. After a group breakfast, the teams took to the course and competed for the title. Congrats to all of the winners!

Meanwhile, several attendees and their families made their way on the Wild Florida tour!

A visit to the Florida Everglades proved to be the wildest adventure in Central Florida. Our group enjoyed a close look at alligators & exotic wildlife as they glided through 4,200 acres of untouched nature preserve on an exclusive airboat ride. They also had the opportunity to stroll through the Gator and Wildlife Park to see lemurs, sloths, zebras, and other animals native to South America, Africa, and Australia.

Upon return to the hotel and after a bit of rest, our attendees attended several activities across the resort including lounging in cabanas by the pool, our first-ever Women in Turfgrass reception and our First Timer's reception. Monday evening, TPI president Hank Kerfoot opened the conference on to a packed house at the Opening Reception at the Hilton Orlando Bueno Vista Palace. Here attendees got a chance to network and relax before conference education the next morning.

Education

Karl Mecklenburg, former Denver Bronco, kicked off education with an inspirational speech to TPI members during the General Session and morning breakfast. Attendees enjoyed two full education days focused on improving office processes, communication, best sod farming practices, the latest on regulations, Keeping it Real, and so much more.

TPI Executive Director Casey Reynolds hosted the TPI Annual Business Meeting at Tuesday's lunch where he presented information on TPI and TLI budgets, TLI scholarships, current, and new initiatives, and more.

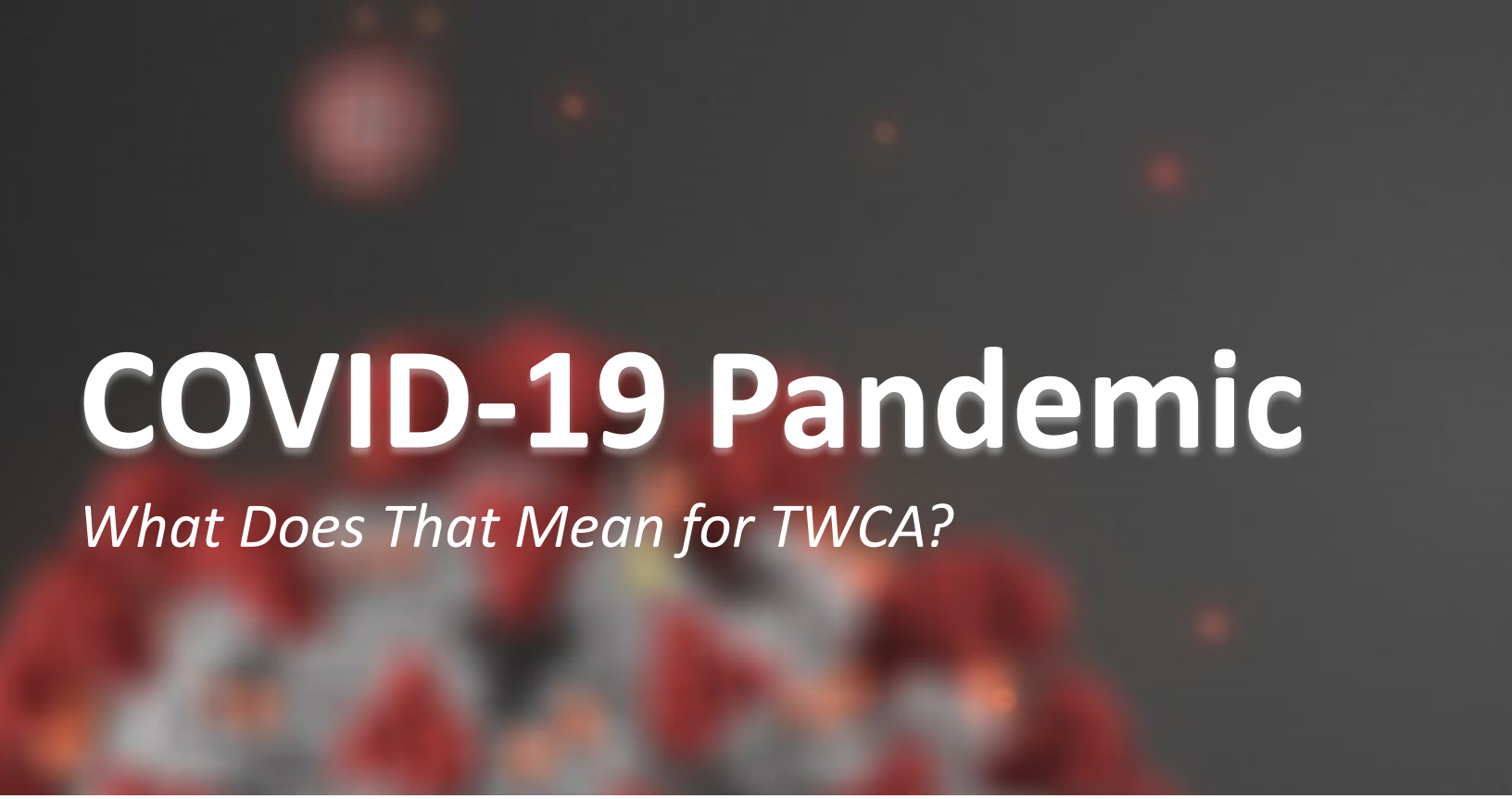
Exhibit Hall and Field Day

The Exhibit Hall opened Tuesday with an eager crowd ready to visit with over 50 exhibitors lining the hall. Vendors were able to share information about their products with the attendees during dinner and in the reception afterward. Then we headed down the hall into the massive dessert reception complete with Disney Characters!

Wednesday morning attendees headed to a field day at nearby H&H Sod Farm. With beautiful weather and over 20 exhibitors, attendees were excited to learn about new products and technologies while enjoying lunch with over 800 of their closest friends.

-Allie Shriver, TPI Membership & Marketing Manager

TWCA Pull-up Banners could be seen throughout the event on member booths, as seen on two Pennington booths. Photos provided by Russell Chambless.



COVID-19 Pandemic

What Does That Mean for TWCA?

TWCA, like the rest of the world, is working to respond to the unprecedented challenge of pandemic living. To ensure the strength and success of the trialing program we have implemented a set of minimum thresholds for viability.

Currently, these thresholds are easily met and we don't see any danger to ongoing trials, but if there are any changes that prevent collecting suitable amounts of usable data TWCA is also prepared to add an additional year to the current trial. If the triggering thresholds are exceeded, any cooperator who is unable to collect data or manage the trial to trialing standards, will be compensated at a 1/2 rate for the 2020 trialing year.

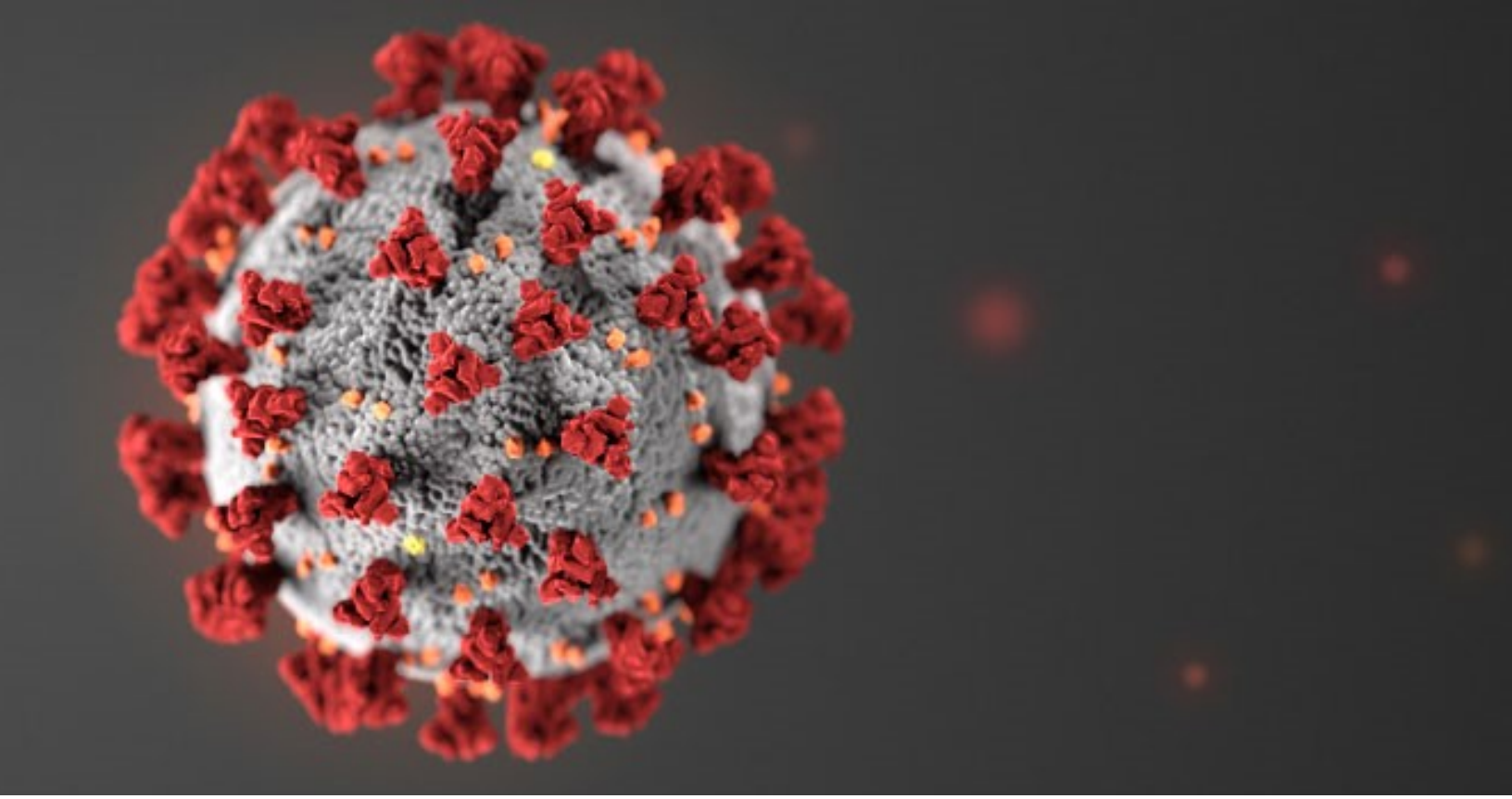
We are still developing criteria for this payment but we want to ensure our cooperators are taken care of and that we've minimized the financial damage done by this pandemic.

We remain committed to providing the highest standards of evaluation for drought tolerant turf and are doing everything we can to preserve the integrity of the process.

Stay safe, stay healthy, and stay home as much as possible; we want to work with everyone for years to come.

Minimum Thresholds for Trialing

- **60% of Acute Drought Stress trials**
  The lowest acceptable threshold for usable, accessible trialing for evaluation.
- **1 May 2020 Access to Trials**
  Cooperators are able to access and maintain trials no later than 1 May 2020. This is the absolute cutoff for applying treatment and controls.



ESSENTIAL SERVICE PROVIDERS

Our industry is allowed to operate during the pandemic. Many states and the Federal Government say so.

Experts with the National Association of Landscape Professionals (NALP) worked with Federal Officials to include Landscaping in the Department of Homeland Security's list of essential operations. Here is the information from NALP:

On March 28, 2020 the Department of Homeland Security updated the national Memorandum on Identification of Essential Critical Infrastructure Workers During COVID-19 Response to indicate which businesses the Federal Government have determined are critical and essential and should remain in operation. The list specifically enumerates the landscape industry, which includes all aspects of landscape services including landscape maintenance, lawncare, irrigation and treecare."Workers such as plumbers, electricians, exterminators, builders, contractors, HVAC Technicians, landscapers, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of residences, businesses and buildings such as hospitals, senior living facilities, any temporary construction required to support COVID-19 response.

WORDS FOR THOUGHT

Evanne Gutierrez

Whether you turn on the TV, scroll through your social media pages, or simply try going to the store, the term COVID-19 is everywhere. To some, COVID-19 brings chaos and fear, while others see the hope and opportunity this crisis has brought forth.

COVID-19 has joined the world and is not going anywhere anytime soon. As a result to this pandemic, many individuals are forced to work from home, help with online teaching due to in-person school closures, and living with the restrictions quarantine life comes with.

As everyone deals with this crisis in their own way, I hope that many people are able to look at the positives. Don't disregard positive outlook as not viewing this issue as a serious matter, for the lives lost, along with financial hardships is all devastating.

Rather, let us view time isolated in our homes with our families as a gift. Go on a walk, bake, enjoy family meals, spend time in the backyard, start a garden, work on house projects, read a book. Or just relax.

There are so many things that get pushed aside due to the chaos of our everyday lives. COVID-19 has put a hold on life, and is allowing time for things that don't always make the cut.

As the world continues to live with COVID-19, let's remember we are all in this together!

Be kind and loving!


GET
25%
of all membership signups for
YOUR PROGRAM OR UNIVERSITY
at a TWCA Partnered Event
*Available for TWCA Members ONLY

MEMBERSHIP APPLICATION

Complete this application form and —

Mail to: Turfgrass Water Conservation Alliance
225 3rd Ave SW, Albany, OR 97321

Online: https://www.tgwca.org/become-a-member.html

Become a Member

Select One

☐	University/Government	COMPLIMENTARY
☐	Basic	$ 100.00
☐	Beginning	$ 250.00
☐	Expanded	$ 500.00
☐	Full	$1000.00

Member Information

Name: _____

Company: _____

Address: _____

City: _____ State/Province: _____ Country: _____

Zip Code: _____ Telephone: _____ Email: _____

Payment Information: Pay by Check or by Credit Card

Please check appropriate box: ☐ Check* ☐ Visa ☐ MasterCard ☐ American Express

Card Number: _____ Cardholder Name: _____

Security Code: Expiration Date:

*Make checks payable to Turfgrass Water Conservation Alliance, 225 3rd Ave SW, Albany, OR 97321

Membership Update

New TWCA Seed Producer Membership Structure

TWCA recognizes the cost of membership has put conservation out of reach for many turf organizations. We've recently restructured the Seed Producer membership to make it more accessible, more flexible, and more useful to our members and the turfgrass industry at large. Seed Producer Membership, as the name implies, is only available to those companies that actively produce turf seed for

Benefits

TWCA Members receive the following benefits:

Trial Entries– Membership is the only path to TWCA Qualification for Drought Tolerant Turfgrasses

TWCA Logo Use– Only TWCA members are allowed to use the TWCA Seal to promote drought tolerant turfgrass cultivars

Seat on the Board- TWCA Board members set the priorities for the program

Marketing Committee- TWCA Marketing Committee provides insight and direction to targeting the program to the most beneficial audiences

Trialing

TWCA trialing runs in three phases for five years:

Establishment- This first phase of trialing runs from the fall of year zero, when the seed is planted to the initiation of drought stress.

Data Collection- Phase two is Data Collection. This phase extends for three years.

Qualification- Beginning in the fall of the last year of Data Collection, this final phase of Trialing extends until mid March and consists of data analysis, statistical analysis, review and Research Review Committee (RRC) consideration. Final Qualification rests with the RRC and is uncontestable.

Dues

As a membership driven organization, dues and fees provide 100% of our current budget and allow us to continue our strong trialing and advocacy work.

Membership Dues- Membership Dues for Seed Producing Companies are $25k/year

OPTIONAL ENTRY Fee- Additional trial entries, called OPTIONAL ENTRIES are available for $5k/year

Qualification Fee- OPTIONAL ENTRIES are also subject to a one time $5K Qualification fee if they are Qualified and increased for commercial sale

Royalty- Any cultivar can be entered into TWCA trialing, but cultivars from non-TWCA breeders are subject to a 2% royalty paid to TWCA

Frequently Asked Questions

When are membership dues assessed?

Annual dues are billed in November of the prior year

How many entries do I get with membership?

TWCA Seed Producer membership comes with three entries per trial

What if I need more entries for a trial?

Members can submit more entries into each trial. These OPTIONAL ENTRIES are $5k/year for the duration of the trial (Establishment year and all three years of Data collection). These are space limited on a first come first serve basis and are also subject to a Qualification Fee

What if I don't need all my entries ?

Members have the ability to flex one of their three entries to an additional entry in the next trial. For instance, if a member only wants two entries in a Perennial Ryegrass trial but wants more entries in the following Kentucky bluegrass trial, they can flex one entry to the bluegrass trial at no additional cost. The FLEX ENTRY does not have a Qualification Fee (explained below)

Are Entries transferrable?

Yes. If members work out a sharing agreement between themselves that is their right. TWCA does want to know if an agreement exists prior to trial design though

How do Entries work?

There are three entry types, BASE, FLEX, and OPTIONAL.

- **BASE:** These are the three entries that come with membership and are not subject to trialing or Qualification Fees. When designing a trial these have the highest priority on trial space
- **FLEX:** This is essentially a BASE entry that a member chooses to carry over to another trial. It can only be carried over into the next trial. When designing a trial these have second priority on trial space
- **OPTIONAL:** This entry is subject to an additional 5K trialing fee and, if Qualified a one time $5k Qualification Fee. When designing a trial these have the lowest priority and are on a first come first serve basis

Want to Become a TWCA Member?

FOR MORE DETAILS CONTACT JACK KARLIN AT jack.karlin@tgwca.org
OR FILL OUT THE ATTACHED Membership Application on Page #

TWCA Trialing 2020

Schedule & Information

TWCA prides itself on maintaining the highest standard of drought tolerance evaluation within the turf industry.

The upcoming Tall Fescue trial is anticipating ten locations and no less than seven of ten locations under Acute stress and Standard maintenance. This prepares the program for strong evaluation of Drought tolerance in one of the most important cool season turf species.

The trialing is also adding three new locations to the trialing;

- University of Georgia, Griffin GA
- University of California Cooperative Extension, Fresno, CA
- Penn State, Redding PA

Trialing is tied to the Establishment year (2020) with data collection running three years through the end of 2023. Qualification takes place early in the year of 2024.

Where in the past TWCA has also used locations for Chronic and Low Maintenance trialing; this trial will focus on Acute drought stress in standard maintenance conditions.

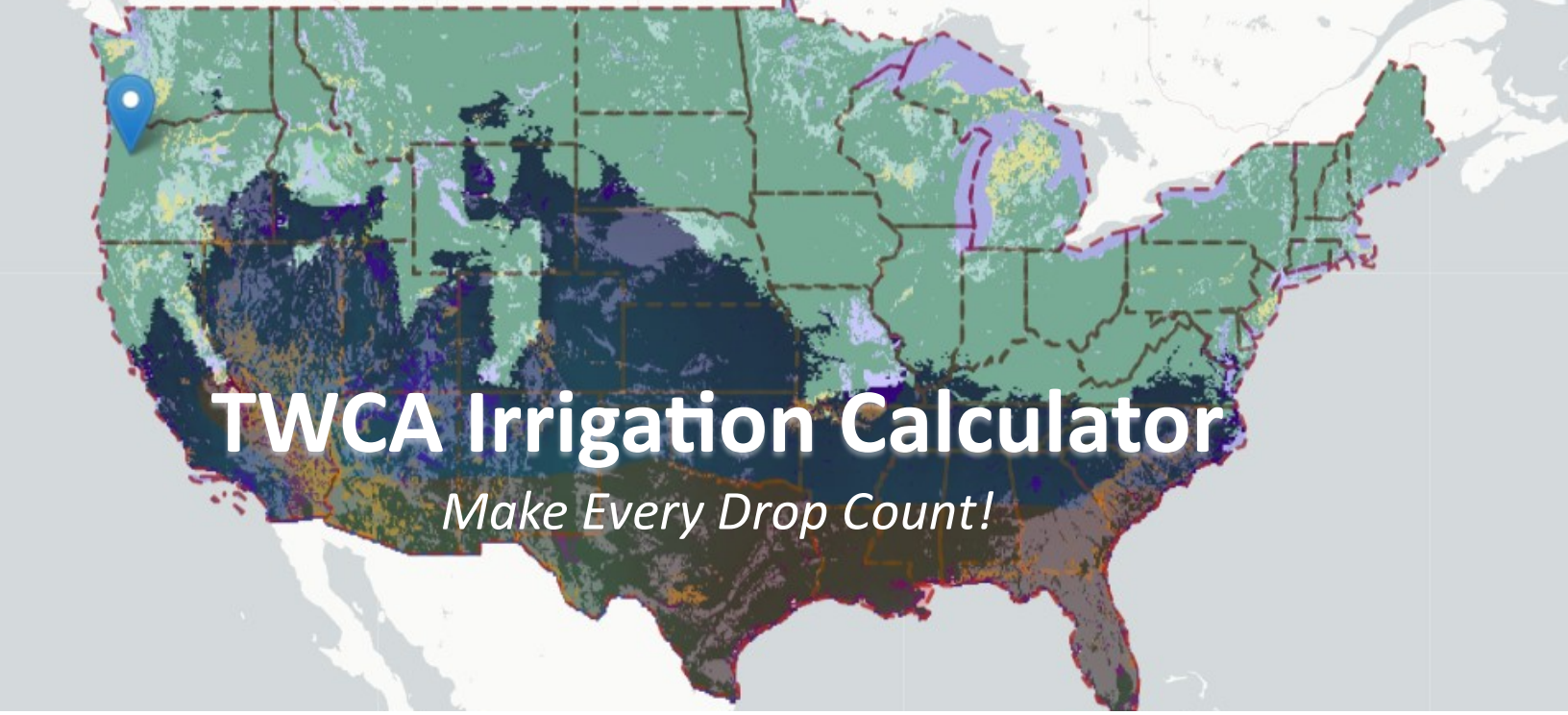
TWCA Trialing Locations 2020		
Cooperator	Location	Affiliation
M, Fraser	Rolesville, NC	Pure Seed Testing East
J, Derr	Virginia Beach, VA	Hampton Roads AREC
K, Hignight	Albany, OR	NexGen Turf Research, LLC
C, Bigelow	West Lafayette, IN	Purdue University
M, Richardson	Fayetteville, AR	University of Arkansas
E, Lyons	Guelph, Ontario (Canada)	University of Guelph
P, Raymer	Griffin, GA	University of Georgia
M, Reiter	Fresno, CA	UCCE
M, Fidanza	Redding, PA	Penn State
K, Kopp	Logan, UT	Utah State University

New TWCA Cooperator Dr. Michael Fidanza

Dr. Michael Fidanza is a Professor of Plant and Soil Sciences at Penn State Berks. Fidanza's research focus is turfgrass ecology, the evaluation of plant health products (i.e., fungicides, herbicides, plant growth regulators), soil surfactants, seed technology, and cultural practices (fertilizers, biostimulants) in turfgrass ecosystems, and the biology and ecology of fairy ring disease in turfgrass. Fidanza also investigates the benefits and uses of mushroom compost for the lawn and landscape, crop production, and the environment. All research involves collaborations with scientists from many other academic institutions as well as industry. Dr. Fidanza is active in the American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA), and many other academic, professional, and trade organizations particularly in the green industry. He was Co-Chair of the Bouyoucos Conference on Constructed Rootzones. Fidanza has conducted seminars and workshops in Scotland, Czech Republic, Slovenia, Japan, China, Canada, Italy, and many other countries. He has established the "Valentine East" research and teaching facility at Penn State Berks Campus.

Fidanza also conducts pedagogical research, and teaches undergraduate courses in BIOLOGY 120A (Plants, Places, and People), BIOLOGY 496 (Independent Research), TURF 230 (Turfgrass Pesticides), TURF 235 (The Turfgrasses), TURF 297 (Special Topics), and SOILS 101 (Introductory Soils), and a graduate course in TURF 850 (Turfgrass Physiology). He also has responsibilities with undergraduate student advising.

Dr. Fidanza has received the Outstanding Research Award for Penn State Berks Campus, Outstanding Service Award for Penn State Berks Campus, Howard O. Beaver Outstanding Community Service Award for Penn State Berks Campus, Outstanding Educator Award from the Northeastern Weed Science Society of America, Outstanding Teaching Award from the Northeastern Branch ASA-CSSA-SSSA, and was Past-President of the Northeastern Branch ASA-CSSA-SSSA, and former Editor of the International Turfgrass Society Research Journal.



TWCA Irrigation Calculator

Make Every Drop Count!

The TWCA Irrigation Calculator is finally here! TWCA worked together with Oregon State University, University of Washington and University of Arkansas to provide a unique tool for all turfgrass users in the effort to *make every drop count!* Thank you to all of the sponsors who made this possible: TMI, Pennington, ProSeeds and PureSeed.

How Does It Work?

Go to our website at *tgwca.org* and click the *Irrigation Calculator* tab at the top of the screen, or go to *http://turfgrasswaterconservationalliance.org/twca-calc/* .

On the left side of the screen will show six steps to calculate how many minutes to irrigate your lawn.

Step 1: How green do you want your lawn to be?

- Select from the 5 options: survival, adequate, homeowner, premium, and professional.

Step 2: How much water does your irrigation system put out (in/hour)?

- It is important that you know what your precipitation rate is. This fairly simple step is crucial to maximizing the accuracy and effectiveness of the Water Star® Irrigation Calculation. If you do not know what your precipitation rate is, click the How to determine my precipitation rate? button under step 2. Once you determine your precipitation rate, change it from the 0.6 in/hr that is automatically entered.

Step 3: How many times per week do you run your irrigation system?

- Select from 1 to 5 times per week.

Step 4: Is your turf TWCA qualified?

- If you aren't sure, select the information button which will take you to the TWCA qualified list.

Step 5: What month are you irrigating?

- This will automatically enter the month you are accessing the calculator.

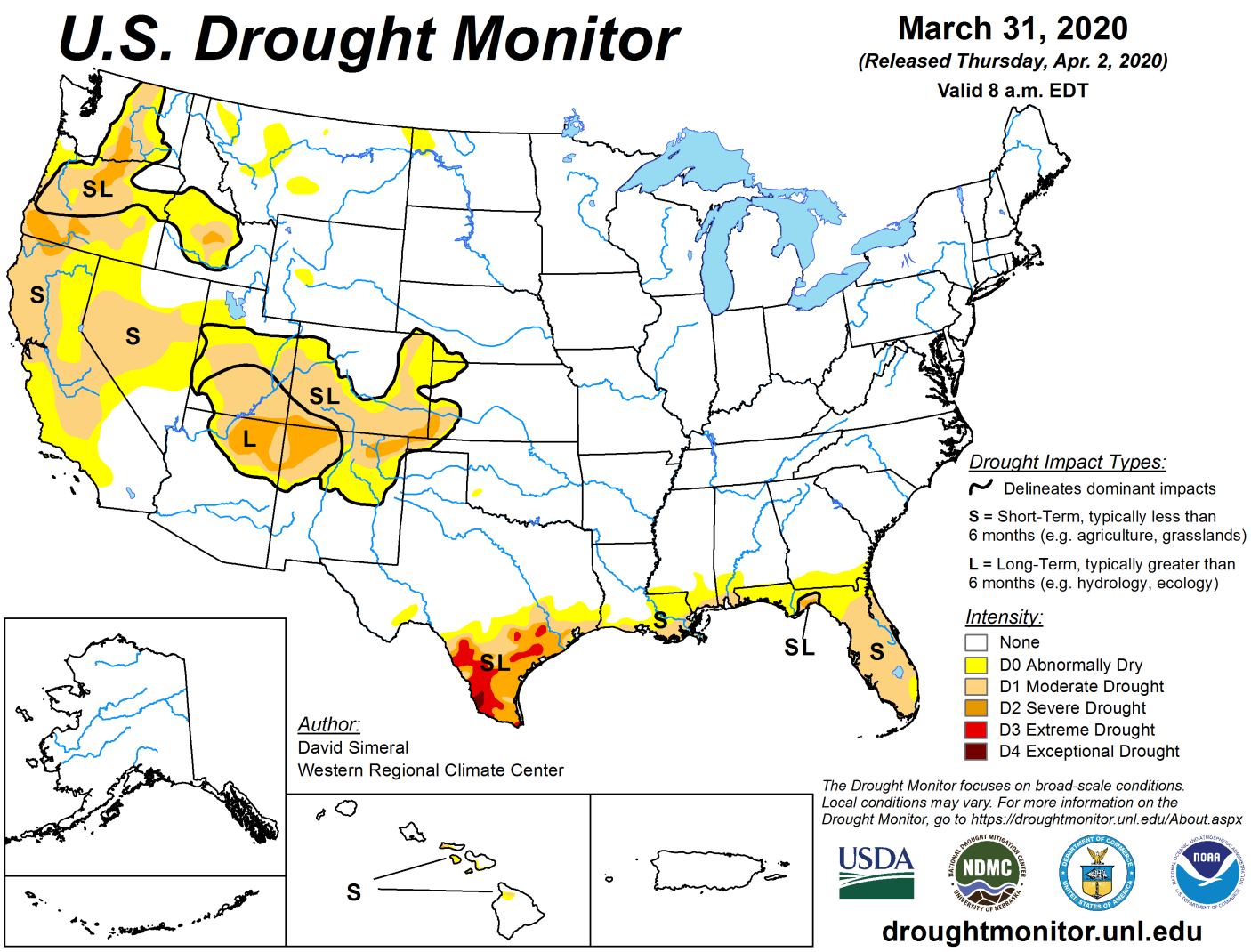
Step 6: Select a location on the map via clicking on the map or entering a location on the search box on the top right corner. This version only supports locations in the contiguous United States (Alaska, Hawaii are excluded.)

- Below the search option, select the type of map you would prefer to view; grayscale, streets or satellite. You also have the option to select place names, soil class, turf zones and precipitation.

PROMOTE YOUR EVENTS WITH TWCA

Do you have an event that TWCA should be apart of?
Let us know to get on the 2020 TWCA Calendar

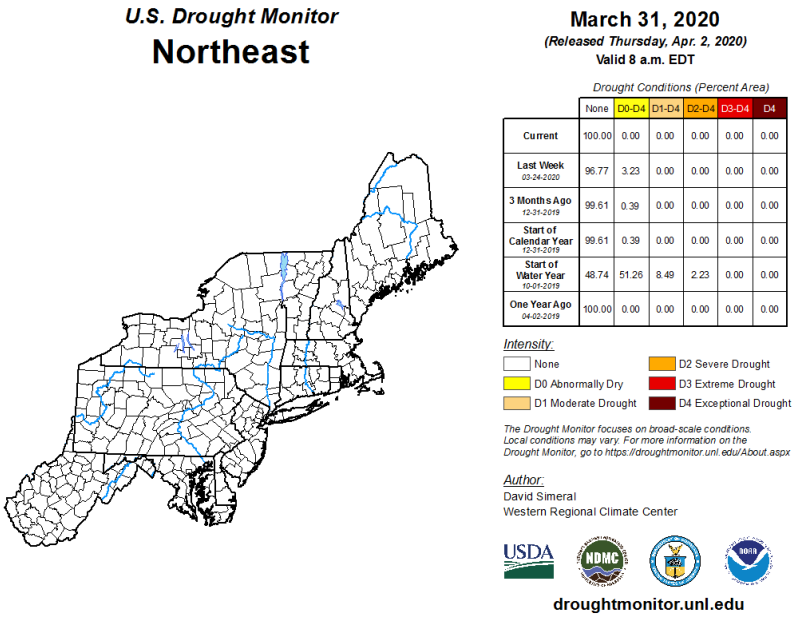
FOR MORE DETAILS CONTACT JACK KARLIN AT jack.karlin@tgwca.org

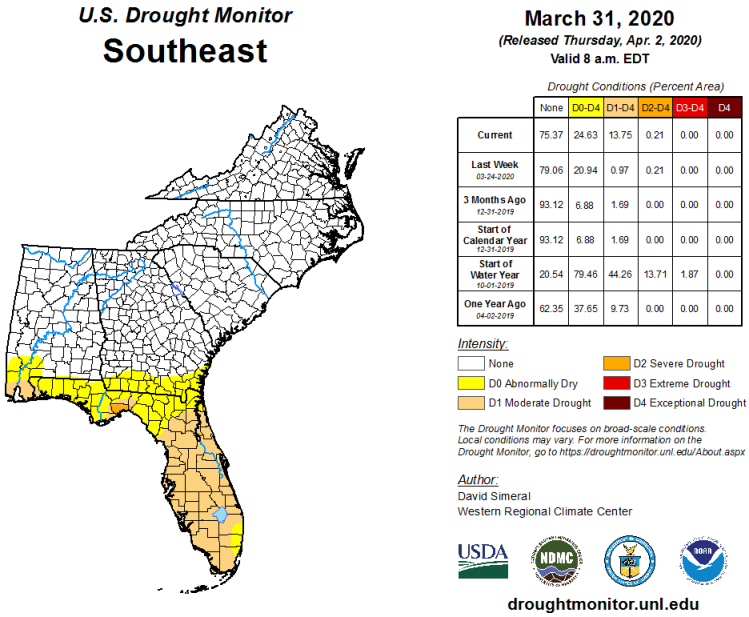


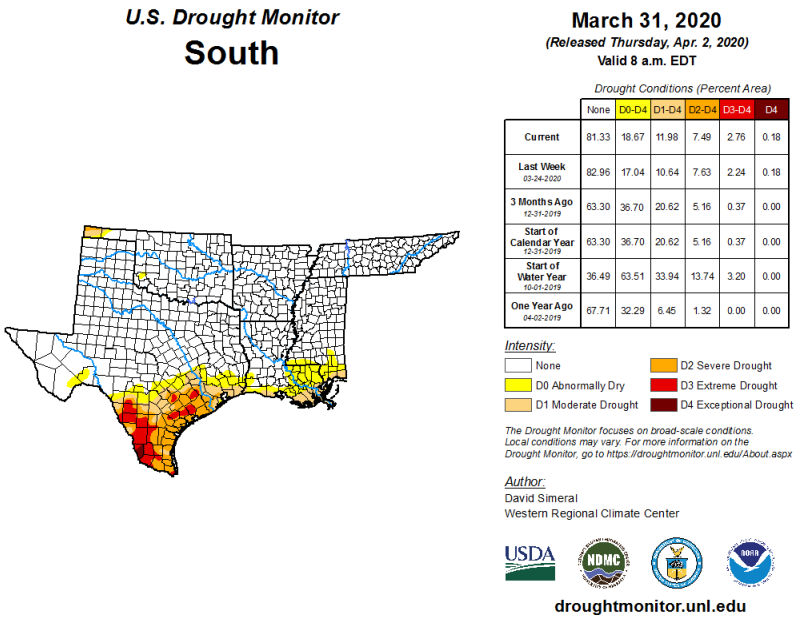
National Drought Summary

Author: David Simeral, Western Regional Climate Center

This U.S. Drought Monitor week saw an active weather pattern impact various parts of the conterminous U.S.—including the western U.S. which continued to experience below-normal temperatures and snow showers in the mountain ranges of the Pacific Northwest (Olympics, Cascades), California (Northern Coast Ranges, Sierra Nevada), and parts of the Intermountain West (Wasatch, central and northern Rockies). In other parts of the Pacific Northwest, including central Oregon and Washington, drought intensified while improvement in drought-related conditions occurred in the Four Corners of northeastern Arizona. Elsewhere, an outbreak of severe weather, including showers and thunderstorms as well as tornadoes, affected parts of the Midwest and South. Along the Gulf Coast, temperatures were well-above normal with numerous single-day high temperature records broken. In Florida, drought conditions expanded across much of the state after another week of unseasonably warm temperatures and continued dryness with numerous cities across the state experiencing record dryness for the month.







Northeast

On this week's map, the region remained drought-free and several small areas of Abnormally Dry (D0) in Connecticut, Massachusetts, New Jersey, New York, and Rhode Island were removed in response to precipitation events during the past several weeks, which provided a boost in soil moisture and streamflow levels. Average temperatures for the week were above normal across most of the region with largest positive anomalies (6-to-10+ degrees) observed across western portions of Pennsylvania as well as New York and West Virginia. Much of the region observed light precipitation during the past week with liquid accumulations of generally less than one inch with the exception of areas of central and western Pennsylvania that received 2-to-3 inches accumulation while snow showers were observed in the Adirondacks, Green Mountains, and White Mountains.

Southeast

During the past week, precipitation was observed across much of the northern portion of the region with the heaviest accumulations (3-to-5 inches) observed across northern portions of Alabama and Georgia while other parts of the region, including the Carolinas, received accumulations of generally less than two inches. In the southern portion of Alabama and Georgia as well as in Florida, the hot and dry pattern persisted leading to expansion of areas of Abnormally Dry (D0) and Moderate Drought (D1). In these areas, the 7-day average streamflows were mainly below normal levels. In Florida, a number of observing stations around the state recorded their driest March on record including Lakeland Linder Regional Airport (0.00"), St. Petersburg Albert Whitted Airport (0.00"), and Vero Beach International Airport (0.02"). According to the March 30 USDA Crop Progress and Condition Report, pasture conditions in Florida were steadily deteriorating around the state because of

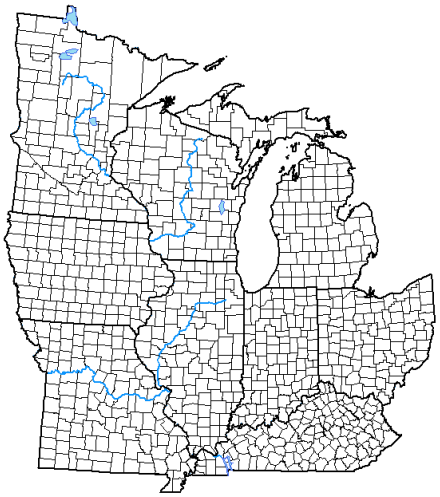
the abnormally warm temperatures and decreasing soil moisture levels.

South

On this week's map, drought-affected areas of southern Texas and the Gulf Coast region of Louisiana and Mississippi saw continued deterioration resulting from the lack of rainfall and abnormally high temperatures. During the past week, a number of daily high temperature records were either tied or broken across the region — including at the New Orleans International Airport that soared to 89º F on March 25. Along the Gulf Coast region of Louisiana and Mississippi, precipitation deficits (ranging from 3-to-6 inches) for the past 30-day period led to expansion of areas of Moderate Drought (D1). In the South Texas Plains and Gulf Coast Region, hot and dry weather this week led to continued expansion of areas of Moderate Drought (D1), Severe Drought (D2), and Extreme Drought (D3). In far southern portions of the state, temperatures reached the high 90s last week. According to the latest USDA Texas Crop Progress and Condition Report, some failed fields (small grains) in South Texas are being reported because of dry conditions while livestock across the state was rated in fair-to-good condition. In Oklahoma, above-normal precipitation during the past 30-day period led to removal of areas of Abnormally Dry (D0 and Moderate Drought (D1) in southwestern Oklahoma.

Midwest

On this week's map, the region remained drought free. For the week, severe weather impacted much of the region including showers and thunderstorms as well as tornadic activity in Iowa, Illinois, Indiana, Kentucky, and Wisconsin. Precipitation accumulations for the week ranged from 1 -to-3 inches with the greatest accumulations observed in northern Illinois, central Indiana, southern Michigan, and northern Ohio. Average temperatures were above



March 31, 2020
(Released Thursday, Apr. 2, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

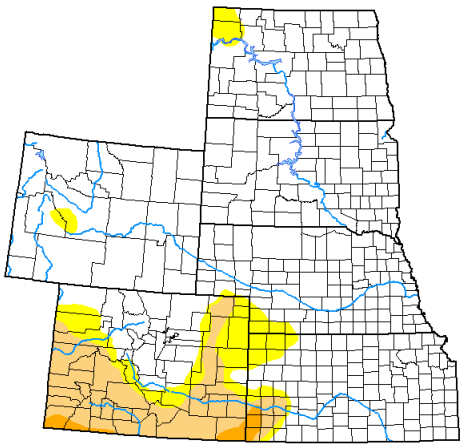
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 03-24-2020	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 12-31-2019	99.74	0.26	0.00	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	99.74	0.26	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	74.06	25.94	11.99	5.07	0.32	0.00
One Year Ago 04-02-2019	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:
David Simeral
Western Regional Climate Center

droughtmonitor.unl.edu



March 31, 2020
(Released Thursday, Apr. 2, 2020)
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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	82.13	17.87	10.65	0.99	0.00	0.00
Last Week 03-24-2020	81.83	18.17	10.35	0.99	0.00	0.00
3 Months Ago 12-31-2019	75.57	24.43	12.06	4.79	0.00	0.00
Start of Calendar Year 12-31-2019	75.57	24.43	12.06	4.79	0.00	0.00
Start of Water Year 10-01-2019	78.65	21.35	6.42	0.00	0.00	0.00
One Year Ago 04-02-2019	89.57	10.43	1.53	0.00	0.00	0.00

Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

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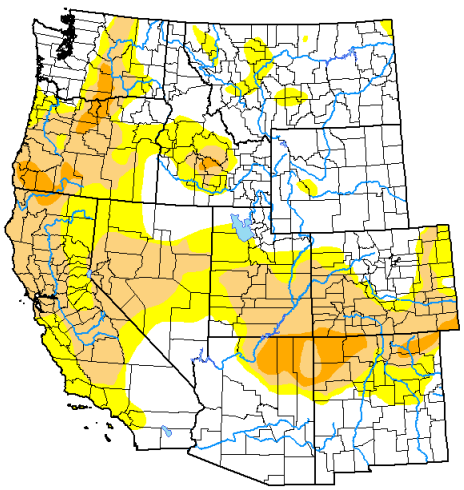
Western Regional Climate Center

droughtmonitor.unl.edu



March 31, 2020
(Released Thursday, Apr. 2, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	51.87	48.13	27.82	4.20	0.00	0.00
Last Week 03-24-2020	51.19	48.81	24.66	3.60	0.00	0.00
3 Months Ago 12-31-2019	59.17	40.83	18.17	7.12	0.00	0.00
Start of Calendar Year 12-31-2019	59.17	40.83	18.17	7.12	0.00	0.00
Start of Water Year 10-01-2019	68.40	31.60	16.32	3.16	0.00	0.00
One Year Ago 04-02-2019	71.08	28.92	9.32	1.65	0.00	0.00

Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:
David Simeral
Western Regional Climate Center

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normal across the region with the largest positive anomalies observed in the southern half of the region that saw average temperatures for the week ranging from 6-to-10+ degrees above normal.

High Plains

On this week's map, only minor changes were made in Wyoming where an area of Abnormally Dry (D0) was introduced in response to below-normal snowpack conditions at several NRCS SNOTEL sites in the Wind River Range. Elsewhere, short-term conditions improved in northwestern Colorado leading to removal of areas of Abnormally Dry (D0) while conditions deteriorated in south-central Colorado leading to minor expansion of areas of Abnormally Dry (D0) and Moderate Drought (D1). Overall, precipitation for the week was light (generally <1.5" liquid accumulations) with areas of northwestern Kansas, eastern Nebraska, and southeastern South Dakota receiving the greatest accumulations. Average temperatures for the week were mostly above normal (2-to-8 degrees) with greatest positive anomalies observed in northern North Dakota and eastern Kansas while the plains of eastern Colorado and Wyoming were slightly cooler. For the past 30-day period, precipitation was below normal across the Dakotas, eastern Wyoming, southeastern Colorado, and portions of western Kansas, while above-normal precipitation was observed across much of Nebraska, eastern Kansas, and portions of northeastern Colorado.

West

On this week's map, areas of drought expanded in north-central Oregon, southcentral Washington, central Nevada, and in the central Sierra Nevada of California. Elsewhere in the region, one-category improvements in areas of Abnormally Dry (D0), Moderate Drought (D1), and Severe Drought (D2) were made in northern Arizona where precipitation has been above normal during the past 30-day period. In California, the California Snow Surveys is reporting a statewide SWE percentage of normal of 54% with a regional breakdown as follows: North 57%, Central 58%, and South 45%. Elsewhere in the West, region-level (2-digit HUC) SWE at the end of the month was as follows: Great Basin 91%, Pacific Northwest 107%, Upper Colorado 108%, Lower Colorado 110%, Missouri 113%, Rio Grande 92%, and Arkansas-WhiteRed 105%. At a basin level (6-digit HUC), below-normal SWE was observed across several basins in Arizona and New Mexico (Salt 29%, Little Colorado 81%, Upper Gila 29%, Rio Grande-Elephant Butte 75%, Upper Pecos 82%) as well as in central Nevada (Central Nevada Desert Basins 78%, Walker 54%, Carson 76%, Truckee 71%) and Oregon (Southern Oregon Coastal 84%, Deschutes 84%).

Looking Forward

The NWS WPC 7-Day Quantitative Precipitation Forecast (QPF) calls for moderate-to-heavy accumulations ranging from 1-to-5 inches across central and eastern portions of Texas and slightly lesser accumulations in southeastern Oklahoma, Arkansas, and northern Mississippi. Across much of the Southeast, the dry pattern is forecasted to continue with the exception of northern portions, which are forecasted for light accumulations (1-to-2 inches). In portions of the northern Plains and western portions of the Midwest, generally light accumulations (<1 inch liquid) are expected. Out West, moderate-to-heavy accumulations (ranging from 1-to-4 inches liquid) are forecasted for northern California while western portions of Oregon and Washington are forecasted to receive less accumulation. Across the Intermountain West, liquid accumulations of generally less than one inch are expected for parts of the central and northern Rockies, Uinta, and Wasatch ranges of Utah while the Southwest is expected to be dry. The CPC 6-10-day Outlook calls for a moderate-to-high probability of above-normal temperatures east of the Rockies while areas west of the Rockies are expected to be below normal. In terms of precipitation, there is a moderate-to-high probability of above-normal levels across California and Nevada while there is a low-to-moderate probability of above-normal precipitation across the remainder of the West with the exception of the areas of Colorado and New Mexico where below normal precipitation is expected. Elsewhere, above-normal precipitation is expected (33% to 50% probabilities) across the eastern half of the conterminous U.S. with the exception of Florida where dry conditions are expected to prevail. In Alaska, the northern two-thirds of the state have a high probability of above-average precipitation while the Aleutians, Southcentral, and Southeast should be below normal.

Crop Science Society of America (CSSA)

Science Policy Committee

The Crop Science Society of America (CSSA) is a progressive international scientific society that fosters the mission of plant science for a better world. Based in Madison, WI, and founded in 1956, CSSA is the professional home for 4,000+ members dedicated to advancing the field of crop science. Crop science is highly integrative and employs the disciplines of conventional plant breeding, transgenic crop improvements, plant physiology, and cropping system sciences to develop and improve varieties of agronomic, turfgrass, and forage crops to produce feed, fiber, food, and fuel.

CSSA supports its members by providing peer-reviewed publications through the Digital Library, educational programs, scientific meetings, recognition and awards, career services, student activities, and science policy initiatives via a Washington, DC office.

Because of their common interests, CSSA, the American Society of Agronomy, and the Soil Science Society of America share a working relationship. Each organization is autonomous with its own bylaws and governing boards of directors.

The Science Policy Committee coordinates Congressional Visit Day for the Societies. Held annually CVD offers direct and coordinated access to the offices of Senators and Representatives to communicate the value of federally funded agricultural research. For the State of Oregon this translated to $16.5 million dollars in funding for fiscal year 2019.

SPC maintains Legislative networks, creates advocacy tools, supports Society members in their efforts to advocate for their work.

Beginning 2020 TWCA Program Administrator serves on the Science Policy committee to advocate for the advancement of science driven policy.

For more information about CSSA go to *crops.org*

USDA Research is Working for Oregon

Supporting Innovation

$45 Million in AFRI grant funding

Supporting Business

$8 Million in SBIR grant funding

- Oregon State University — **$41 million**
- University of Oregon — **$2 million**

U.S. Agriculture Economic Impact

- **$985 Billion** added to GDP
- **9.3%** U.S. workforce
- **20:1** ag research returns
- **$150 Billion** ag exports

Oregon Agriculture Economic Impact

- 34,600 farms
- $4.6 billion in commodities
- $1.9 billion in exports
- 107,640 jobs

Advertising Rates

Ad Size	Non-Member Pricing	Members Pricing
Full Page	$1000	$500
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1/2 Page Horizontal	$440	$220.00
1/3 Page Vertical	$333	$166.70
1/3 Page Square	$333	$166.70
1/4 Page Banner	$287	$143.50
1/8 Page	$125	$62.50

This is a great opportunity to advertise your TWCA membership at a great price, reach an ever expanding audience of researchers, green collar professionals and government agents in your area.

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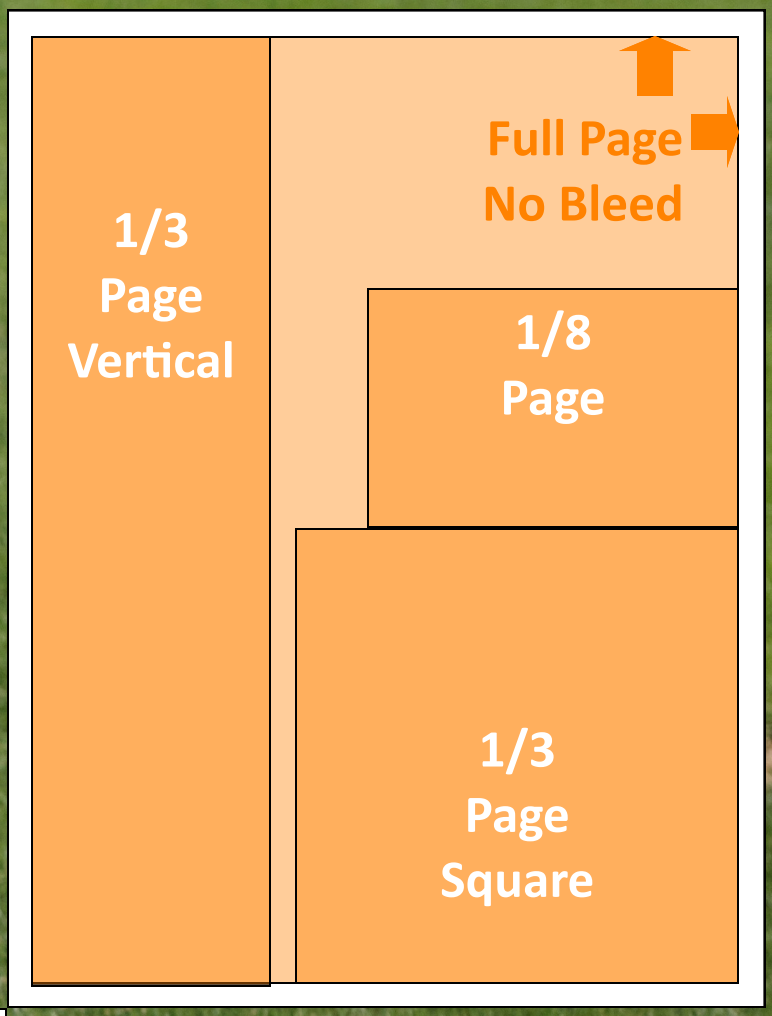
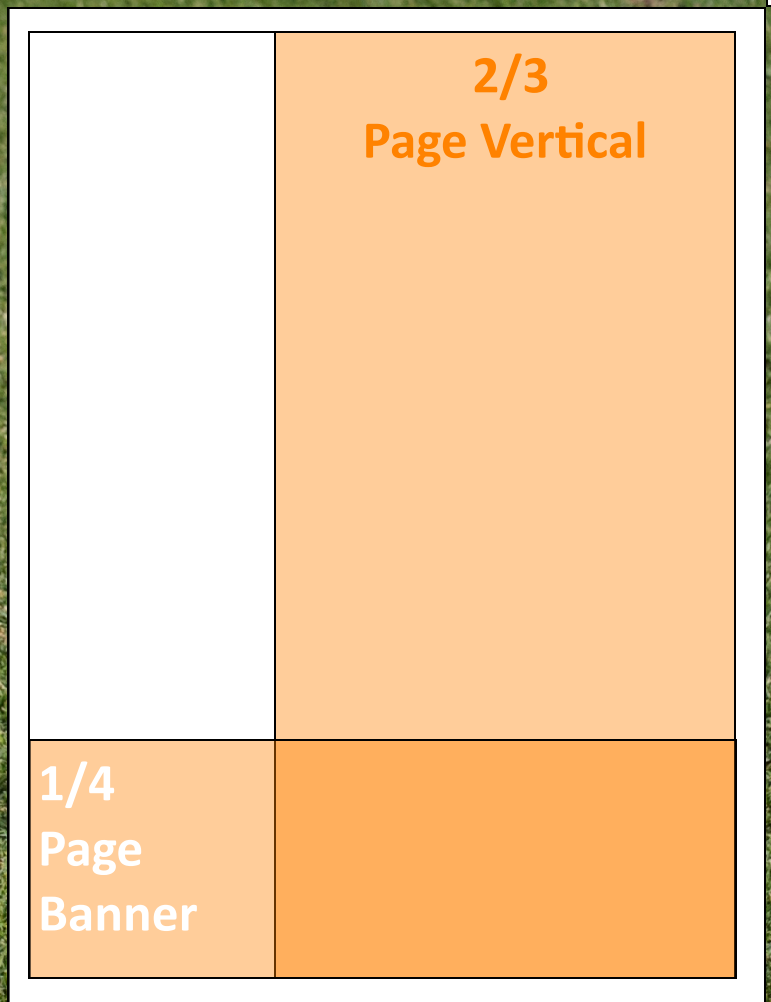
Please keep files to 5MB or less and mail directly to info@tgwca.org.





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TURFGRASS WATER CONSERVATION ALLIANCE
TWCA

TWCA CALENDAR

upcoming events

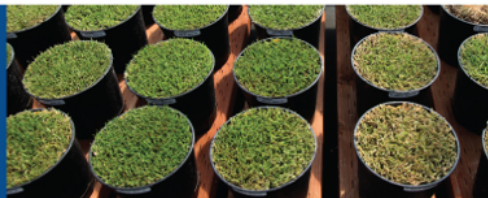
THIS EVENT HAS BEEN

POSTPONED

BECAUSE OF THE COVID-19 SITUATION,

THE TURFGRASS RESEARCH FIELD DAY WILL BE RE-SCHEDULED FOR 2021.

Turfgrass Water Conservation Alliance
225 3rd Ave SW Albany OR 97321
info@tgwca.org



5 Tips for Beautiful Sustainable Landscapes

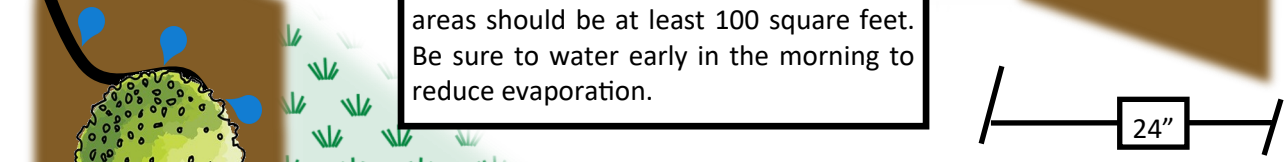
Sustainable Landscaping doesn't always mean getting rid of grass. With TWCA Qualified Drought tolerant turf your yard can reduce it's water need by 30%! These 5 simple tips help you have an easy, affordable, and beautiful sustainable landscape! Learn more about drought tolerant turf at tgwca.org

1. TWCA Qualified Drought tolerant turf is only one way your landscape saves water. Installing mulch or gravel strips 18-24" wide reduces turf area and eliminates overspray from irrigation. Make you landscape more unique by using local alternatives like hazelnut shells or pine straw instead of gravel.

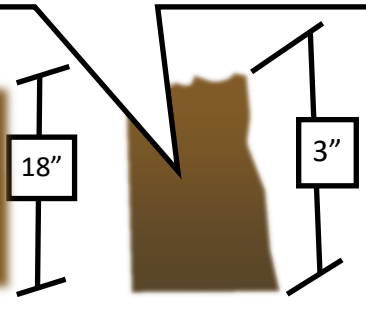
2. Plant drought tolerant, climate appropriate ornamentals in your borders to capture and utilize any overspray on your TWCA Qualified lawn. Rosemary and lavender are both hardy AND pollinator friendly choices.

3. Drip irrigation is a great way to water right at the root zone of drought tolerant shrubs and plants.

4. For greater irrigation efficiency turf areas should be at least 100 square feet. Be sure to water early in the morning to reduce evaporation.



5. Make sure your mulch is at least 3" deep to maximize moisture retention and weed suppression.



NexGen
TURF RESEARCH LLC

Drought

Disease

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Better Turf By Design

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