

Southwest Michigan Field Crops Updates April 2023

Here are updates from the MSU Extension Field Crops team in Southwest Michigan. If you have any items you would like me to include in future email updates—whether events you want others to know about or topics you would like to have addressed—please send me an email or call the office.

Michigan Soybean On-Farm Research Projects for 2023 - There's Still Time!

For those who may be interested in trialing a product or method on your soybean fields this year, you still have time to work with Michigan Soybean Committee as a cooperator. The trials are listed below with the ones in blue stated as higher priority for our region. All trials will be replicated at least four times and must be oriented perpendicular to existing tile lines. Detailed protocols for each of the projects should be obtained before conducting the trial. If you or someone you work with would like to know more, contact me (Eric Anderson) and I will send you details.

- 1) Broadcast Potassium Fertilizer: This project will determine the yield and income benefits of applying a maintenance/crop removal rate of 0-0-60 in the spring on fields having soil test K levels in or below the maintenance range.
- 2) Planting Date: This project will measure the effect that planting date (April or early May vs 2-3 weeks later) has on soybean yield and income.
- 3) Saltro vs ILeVO Seed Treatment: This project will compare the performance of Saltro to ILeVO. Choose sites that have a history of moderate to severe SDS and have SCN present. Both Saltro and ILeVO will be provided. This one is of particular interest for our area.
- **4) Heads Up Seed Treatment:** This project will compare soybean yield and income from applying Heads Up seed treatment. The product will be provided.
- 5) In-furrow Starter Fertilizer: This project offers cooperators an opportunity to evaluate the yield and income benefits of their in-furrow starter fertilizer program when planting soybeans.
- **6) Planting Equipment Comparison:** This project will compare the yield and income benefits of different planting equipment (unit planters, box drills and air seeders) in the row widths and planting rates selected by the cooperator.
- 7) Biological + Post-emergence Herbicide: This project will evaluate the yield and income benefits of adding a biological product (STIMULATE™ from GarrCo Products) to a post-emergence herbicide application. The STIMULATE will be provided to cooperators.
- 8) Plant Growth Hormone/Foliar Fertilizer + Post-emergence Herbicide Trial: This project will evaluate the yield and income benefits of applying ARCHITECH which combines a plant hormone with a 10-5-5 foliar fertilizer. The ARCHITECH will be provided.

- 9) Prescription Foliar Fertilizer: This project will evaluate the yield and income benefits of applying a prescription foliar fertilizer based on the results from an in-season plant tissue sample. The sampling, prescription and foliar fertilizer will be provided to cooperators.
- **10) Foliar Fertilizer + Foliar Fungicide:** This project will compare the yield and income benefits of adding a foliar fertilizer (eNhance from Agroliquid) to a prophylactic foliar fungicide application. This trial is a good fit for producers planning to apply a foliar fungicide in 2023. The eNhance will be provided.
- **11) Foliar Fungicide (Delaro Complete):** This project will evaluate the effect of a single foliar application of a relatively new fungicide from Bayer CropScience on soybean yield and income when applied in high-yield environments. The fungicide will be provided to the first 9 cooperators.
- **12)** White Mold Fungicide Application Timing: Two fungicide application timings will be compared to an untreated control to identify the optimum fungicide application timing and to help validate the new Sporecaster phone app. This trial must be conducted in a field that has had severe and relatively uniform white mold within the past 5 to 7 years. The fungicide will be provided.
- **13) Cover Crop (Cereal Rye):** This project will determine the yield, income and SCN population suppression benefits of adding a cereal rye cover crop prior to planting soybean. The trial should be conducted in fields with confirmed presence of SCN and the rye should be planted in alternating strips in late summer (after wheat or inter-planted into corn) or in the fall following corn harvest. The strips should be wider than the combine header.

Field Crops Virtual Breakfast Has Begun!

The <u>Michigan State University Extension</u> <u>Field Crops Virtual Breakfast series</u> will run every Thursday from Mar 30 through Sep 21, 7 - 8 a.m. EDT. The Virtual Breakfast is live via Zoom. Farmers, agribusiness personnel, and others interested in agriculture can interact with MSU Extension specialists and educators to get their questions

answered. Michigan pesticide applicators can earn enough restricted use pesticide (RUP) credits during the season to recertify their credential. One RUP credit (1A, 1B, Comm or Private Core) and one continuing education unit (CEU) for Certified Crop Advisors (CCA) are available with each live session.

Each week features a 15-minute presentation on a timely topic from a MSU Extension specialist or educator followed by a 15-minute weather summary and forecast by MSU Extension state climatologist Jeff Andresen. The session on March



30th featured Christy Sprague discussing early season weed control. Participants then receive information to apply for credits and can leave or stay for a Q&A session. In addition to the scheduled speakers, other MSU field crops specialists and educators are frequently part of the call and available to answer questions.

Participating is easy and free! You can join the live meeting via Zoom using a computer, tablet, mobile device, or regular phone line. If you are new to Zoom, simply <u>download the Zoom app</u> and you will be ready to join online every week to see visuals shared by presenters. A phone-in option is also available for the audio portion only.

Participants must use a one-time signup to receive an email notification with instructions for joining the Virtual Breakfast as well as weekly reminders. Registrants can opt out at any time.

If you cannot join a live session, you can view the recorded version at any time. However, only the live session will be eligible for RUP and CCA credits. Recordings will be closed-captioned and available on the <u>Field Crops Virtual Breakfast</u> website and the MSU Extension Field Crops Team social media platforms: <u>Facebook, Spotify, YouTube, Apple Podcasts</u> and <u>Twitter</u>.

If you are unable to sign up online, call the Lapeer County MSU Extension office at 810-667-0341. Follow us on <u>Facebook, Spotify, YouTube</u>, <u>Apple Podcasts</u> and <u>Twitter</u> for breaking news.

New MSU Soil Sample Program

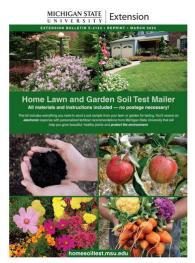
We are excited to announce the April 3, 2023 launch of a new soil sample program for Michigan residents. Clients will have the opportunity to purchase soil sample bags through Michigan State University Extension and receive recommendations directly from MSU. A&L Labs analyze soil samples and send results to MSU Extension where a recommendation will be generated and sent to the client by MSU Extension staff.

All MSU recommendations utilize the latest research and follow state laws and guidelines.

Home Lawn and Garden soil self-mailers including sample bags are available for purchase through local <u>MSU Extension offices</u> or the <u>MSU Bookstore</u>. The self-mailers cost \$26 and look similar to previous self-mailers.

Commercial soil sample bags can only be purchased in person at MSU Extension offices. The cost for the commercial samples is \$18 and does not include shipping costs to A&L Labs.

Please note, clients **must** purchase the correct sample bag (Home Lawn and Garden vs. Commercial). There are different recommendations for commercial and home lawn and garden samples.



Annual Reminder for Restriction of 2,4-D and MCPA in Grape Growing Areas

"It is ordered that pursuant to the authority granted the Director of Agriculture by Act No. 6 of the Public Acts of 1959, as amended, any and all persons shall cease and desist from the use of the volatile ester forms of 2,4-D and MCPA within the above described areas during the period of May 1 to October 1, 2023, and that the amine forms of 2,4-D and MCPA be applied at sprayer pressures not to exceed forty pounds and that sprayer booms be operated over crops at a height not greater than 25 inches."

Still Time to Report Large or Significant Water Use

Agricultural water users in both Indiana and Michigan have until at least June 1 to report their water use for water sources with the capacity to pump ≥70 gallons per minute.

The deadline for water use reports has always been April 1st of the following year in both Indiana and Michigan. Both Indiana and Michigan will still take your report. See the full article at:

https://www.canr.msu.edu/news/indiana and michigan water use reporting meeting the requirement

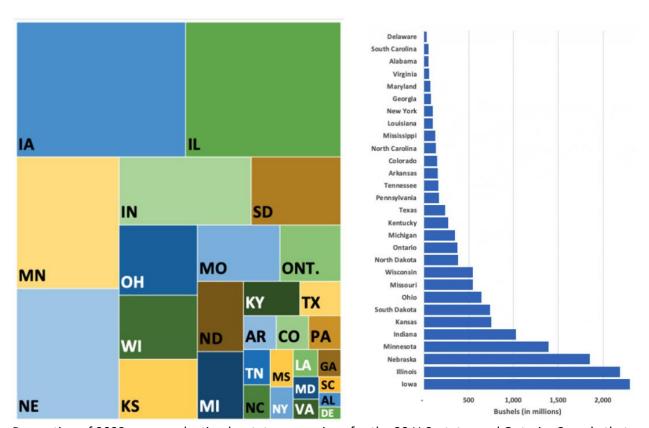
A description of Indiana's registration program and a link to the on-line reporting option are available at http://www.in.gov/dnr/water/4847.htm.

In Michigan, agricultural (LVWU) reports can only be completed by use of the on-line system. An on-line tutorial on the use of the new reporting system is available at: https://www.michigan.gov/documents/mdard/WUR-Procedure 637465 7.pdf.

Corn Disease Loss Estimates Posted for 2022

Corn diseases annually reduce yield in the United States and Canada. Diseases of importance vary from year to year, and diseases that affect yield are based on many factors, including weather conditions, crop production practices, and hybrid susceptibility to disease. The Corn Disease Working Group (CDWG) revises disease loss estimates annually.

From tar spot to nematodes, updated yield loss estimates and revisions have been posted for 2022. Updated annually, plant pathologists representing 28 corn-producing U.S. states and Ontario, Canada, estimated the percent yield loss from corn disease for each participating state or province. These reports account for 14.0 billion bushels (99.0%) of the total corn produced in the United States and Ontario in 2022. The yield loss estimates are comprehensive and include a variety of diseases including root rots, seedling blights, foliar diseases, crazy top, smuts, stalk rots, ear rots, and more.

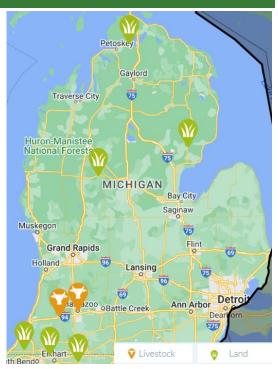


Proportion of 2022 corn production by state or province for the 28 U.S. states and Ontario, Canada that participated in this survey (left). This figure represents 99.0 percent of the 14.1 billion bushels of corn produced across the entire U.S. and in Ontario, Canada. By comparison, the yield loss estimates are also shown for 2021 (right).

Michigan Joins the Midwest Grazing Exchange

[From Kim Cassida, MSU Extension Forage Specialist] The Midwest Grazing Exchange (MGE) is a free "matchmaking service" to help landowners and graziers find each other. The MGE includes Iowa, Minnesota, Wisconsin, Missouri, Illinois, Indiana, and its newest state member, Michigan. The MGE does not oversee the interactions among individuals in any way. It is up to the users to make contacts, verify whether they wish to do business with each other, and finalize the details of their specific agreement. The Exchange does provide a resources page that includes examples of grazing lease agreements and contracts, as well as links to useful grazing information and other grazing exchanges. The page also provides contacts in each state that can assist with problem solving.

Listings are shown as a map with location pins using cows for grazier listings and grass for landowner listings. Despite that cow pin, the service is not just about cattle—sheep, goats, and even poultry are included! Clicking on pins reveals the details of the listing. Anyone can browse the listings and use the contact information, but in order to post a listing, land or livestock owners



must first create a free account. Postings for land available to graze should include: location, acreage, forage or cover crop that is present, timeframe of availability, whether fence and water sources are available, and any other details the landowner wishes to add. Postings from graziers should include: location, species, class, and number of livestock to be grazed, distance willing to travel, and timeframe desired for grazing, and other details about the livestock. Photographs can be included in listings.

Fast Fonz Facts for March 2023 (from MSU Extension entomologist Chris DiFonzo)

As spring slowly comes, I don't have any insect notes to share. But below are helpful info sources to bookmark before the field season starts.

- All info on the Handy Bt Trait Table web site (https://www.texasinsects.org/bt-corn-trait-table.html) was updated in March.
 - Revised Bt trait tables for field and sweet corn
 - Updated list of citations for the cases of Bt resistance
 - New 'How to use the trait table' slide set. Download it for training or watch it as a video.
- Pesticide-related databases are publicly available on the MDARD web site and are updated at least weekly.
 - <u>Certified Pesticide Applicator Credits</u>: Find out how many credits you've earned to date in each category. Applicators are listed by Cert number (not name), C/commercial then P/private.
 - Pesticides Registered in Michigan: Searchable by product name, company, EPA Registration # and RUP status. A great way to check if a given pesticide is still current in the state.

New Soybean Fungicide Efficacy Guides Updated for 2023

New ratings have been developed by the members of the North Central Regional Committee on Soybean Diseases (NCERA-137) detailing Fungicide Efficacy for Control of Soybean Foliar Diseases and Fungicide Efficacy for Control of Soybean Seedling Diseases. These ratings factor how well fungicide seed treatments control their respective diseases. Efficacy ratings for a number of fungicide active ingredients were determined by field-testing the materials over multiple years and locations and provides information on a fungicide's level of disease control.

Fungicide Efficacy for Control of Soybean Foliar Diseases Table (02/2023)					Brown spot ²	Cercospora leaf blight³	Frogeye leaf spot ⁴	<i>Diaporthe</i> (Pod and stem blight)	Soybean rust	Farget spot	White mold ⁵
	Active ingredient (%)	Product/Trade name	Rate/A (fl oz)	Aerial web blight	B	ea lea	Fr lea	Dia	Soy	Iar	¥
11	Trifloxystrobin 13.7% Prothioconazole 16.0%	Delaro 325 SC	8.0 – 11.0	VG	VG	U	G-VG	U	U	NL	F
7 11 3	Fluopyram 10.9% Trifloxystrobin 13.1% Prothioconazole 14.9%	Delaro Complete 3.83 SC	8.0 – 11.0	U	VG	U	U	U	U	NL	U
7	Pydiflumetofen 6.9% Difenoconazole 11.5%	Miravis Top 1.67 SC	13.7	VG	VG	F-G	G-VG	G	NL	F-G	U
7 11 3	Pydiflumetofen 7.0% Azoxystrobin 9.3% Propiconazole 11.6%	Miravis Neo 2.5 SC	13.7	U	U	U	U	U	U	U	Р
11 7	Pyraclostrobin 28.58% Fluxapyroxad 14.33%	Priaxor 4.17 SC	4.0 - 8.0	E	G-VG	P-G	P-F	U	VG-E	F-G	Р
7 11 3	Fluxapyroxad 14.33% Pyraclostrobin 28.58% Tetraconazole 20.50%	Priaxor D 4.17 SC, 1.9 SC	4.0 each component	VG	VG	P-G	F-G	G	VG-E	F-G	Р
11	Trifloxystrobin 32.3% Prothioconazole 10.8%	Stratego YLD 4.18 SC ⁷	4.0 – 4.6	VG	G	F	F-G	U	VG	Р	NL

Fungicide Efficacy for Control of Soybean Seedling Diseases (02/2023)

Efficacy categories:

P=Poor; F=Fair; G=Good; VG=Very Good; E=Excellent; NL=Not Labeled for use against this disease; NR=Not Recommended; U=Unknown efficacy or insufficient data to rank product

Fungicide active ingredient	Pythium spp.¹	Phytophthora	Rhizoctonia spp.	Fusarium spp. ^{1,3}	Sudden death syndrome (SDS) Fusarium virguliforme	Phomopsis spp.
Azoxystrobin	P-G	NS	VG	F-G	NR	Р
Carboxin	U	U	G	U	NR	U
Ethaboxam	E	Е	NR	NR	NR	NR
Fludioxonil	NR	NR	G	F-VG	NR	G
Fluopyram	NR	NR	NR	NR	VG	NR
Fluxapyroxad	U	U	Е	G	NR	G
lpconazole	Р	NR	F-G	F-E	NR	G
Mefenoxam	E2	Е	NR	NR	NR	NR
Metalaxyl	E2	Е	NR	NR	NR	NR
Oxathiapiprolin	P-G	F	NR	NR	NR	NR

Common Fungicide Trade Names and Active Ingredients

Product trade name | Active ingredient(s) DX-612 Fluxapyroxad, DX-309 Metalaxyl, Acceleron DX-109 Pyraclostrobin Allegiance FL Metalaxyl Allegiance LS Metalaxyl Apron XL LS Mefenoxam ApronMaxx RFC ApronMaxx RTA Fludioxonil, Mefenoxam CruiserMaxx CruiserMaxx Advanced or Cruiser Maxx Plus CruiserMaxx Vibrance Fludioxonil, Mefenoxam, Sedaxane or Vibrance Trio Dynasty Azoxystrobin **EverGol Energy SB** Metalaxyl, Penflufen, Prothioconazole **ILEVO** Fluopyram

MSU Extension Managing Farm Stress Project

Farming is a highly unpredictable, hazardous, and stressful occupation. In fact, the suicide rate in the agriculture/forestry/fishing/hunting sector is nearly double that of the national population average. Michigan State University (MSU) Extension is committed to supporting agricultural professionals. These professionals face tough decisions that affect their families, livelihoods, operations, and farms.



MSU Extension has a team of over 20 dedicated professionals who combine expertise in farm business management with mental and behavioral health. They provide innovative resources and support, such as teletherapy, financial services, free online education, and community presentations. These tools are not limited to farmers but are also available to farm workers, local farm organization chapters, veterinarians, Farm Bureau members, county commissioners, and other key stakeholders in agriculture and agribusiness.

To learn more, visit https://www.canr.msu.edu/resources/legacy-of-the-land.

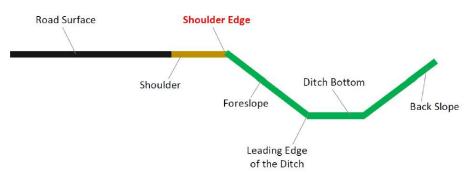
Leave Room for the Right-of-Way

The following message was excerpted from a note published by the Van Buren County Road Commission, but it is applicable in all Michigan counties.

The Road Commission has been given, by law, the responsibility for regulating and controlling activities in the county road right-of-way to manage the placement of road signs, utilities and for other approved uses of the public easement. Any work in the right-of-way must be permitted by the Road Commission to make sure access to public facilities is efficient. The right-of-way is typically a width of 66 feet (33 feet on either side of the centerline of the road). From late spring through late summer the road commission maintains the right-of-way by performing mowing cycles to keep roadsides and intersections clear and suitable for travel and use. In addition, in

late summer the road commission also performs roadside chemical vegetation management to control brush and woody vegetation within the county road right-of-way.

Farmers can help protect our roads by avoiding the road rightof-way when tilling and planting



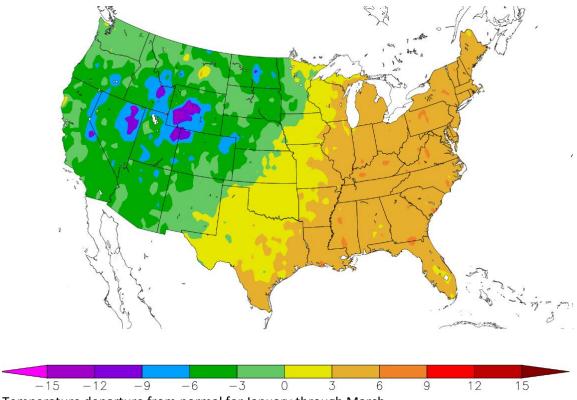
their crops. Any crops planted in the right-of-way are there at the farmers' risk and no compensation for loss of crops in the right-of-way will be considered. Therefore, all crops must be planted beyond 14' from the road's edge, or behind the "Back Slope" of an existing ditch as set forth in the diagram. Roadside ditches cannot be backfilled by property owners or their tenants.

Weather and Crop Update

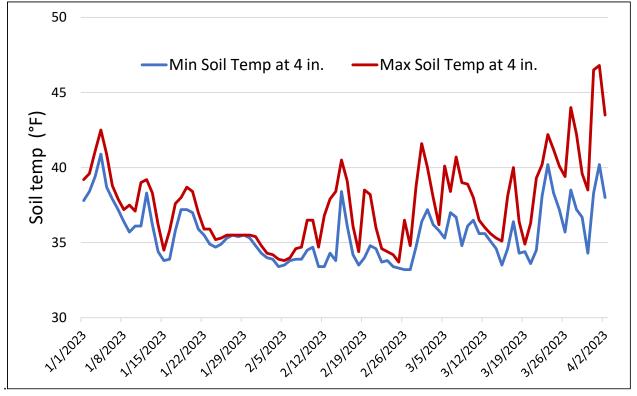
Weather

By now we've all heard that this winter was unusually warm/mild. The first three months of 2023 have been 3-6 degrees warmer than normal in Michigan and most of the country east of the Mississippi River. This has resulted in low potential for winterkill for our overwintering crops and a relatively early green-up for wheat and cover crops. Soil temperatures also did not fall below freezing in many locations, and soil temps have already warmed up above 50 degrees in some cases. It has also resulted in an early leaf-out for plants in general in the

southeastern US, which is significant since many of our early-season insect pests are driven into Michigan on storm winds. If these pests emerge sooner and are already located further north than normal, this could result in higher-than-normal insect pest populations this spring. The current 6-10 day and 8-14 day forecasts predict near-normal temperatures for the first half of April.

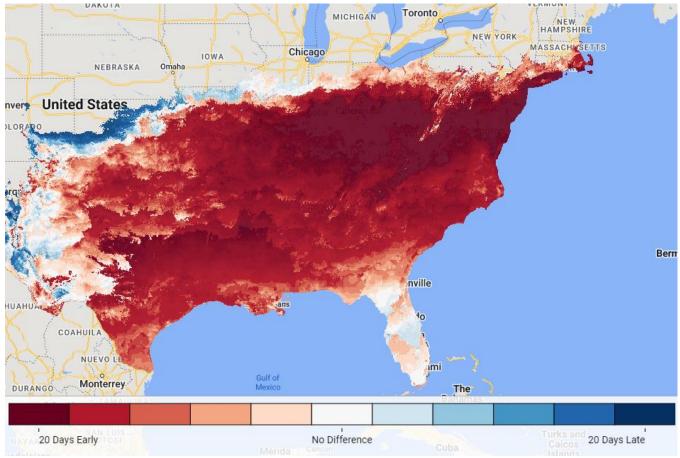


Temperature departure from normal for January through March.



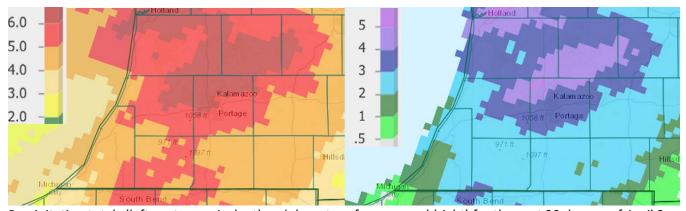
Minimum and maximum soil temperature at 4" depth as recorded at the Enviroweather site in Mendon (St. Joseph County)

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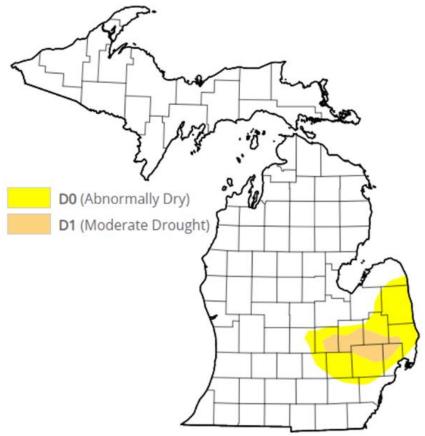


Daily Spring Index Leaf Anomaly as of April 3, 2023. USA National Phenology Network, www.usanpn.org

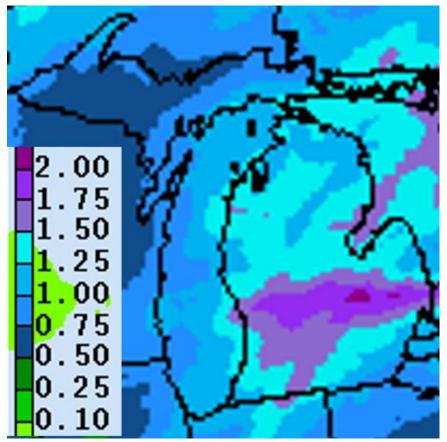
Precipitation in the southwest has been well above-normal so far this year with some areas between Kalamazoo and Grand Rapids receiving as much as 5 inches more than normal during March alone. The dry conditions in the Thumb have greatly improved with only a small area in D1 drought. The forecast for the coming week predicts 0.75-1.75 inches of rain, most of that expected with the storm system coming through early this week. The current 6-10 and 8-14 day forecasts predict near-normal to slightly below-normal chances of precipitation through the first half of the month.



Precipitation totals (left, water equivalent) and departure from normal (right) for the past 30 days as of April 3.

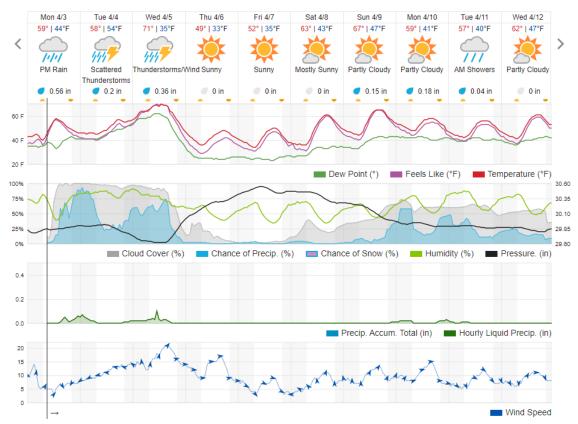


US Drought Monitor released Mar 30.

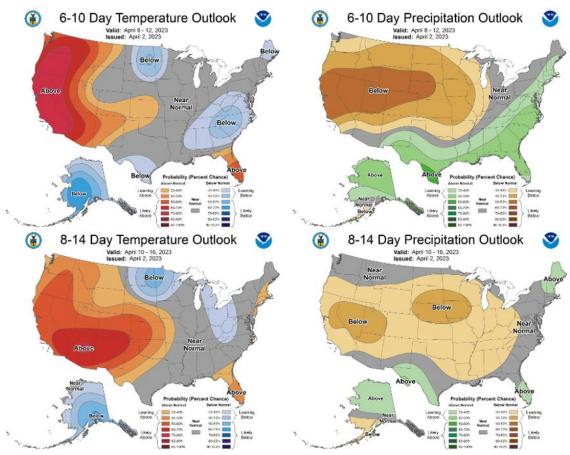


Precipitation forecast for Apr 3-10.

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The 10-day weather forecast for Kalamazoo according to www.wunderground.com.



The 6-10 day (Apr 8-12, top) and 8-14 day (Apr 10-16, bottom) outlooks for temperature (left) and precipitation (right).

Calendar

Titles are clickable links to online content when highlighted and underlined

<u>Virtual Breakfasts</u>. 7-8am. This hour-long broadcast from the MSU Extension Field Crops Team will run throughout the cropping season and feature a brief weather forecast and a presentation from a MSU specialist or educator on a timely topic. One RUP and one CCA credit will be available with each session. Cost is free. Register to receive the link that will be used throughout the season.

- Apr 6: Soil Fertility Considerations in Corn Soy and Wheat with Kurt Steinke. 7-8am.
- Apr 13: Alfalfa Planting Recommendations with Kim Cassida. 7-8am.
- Apr 20: Corn and Soybean Planting Considerations with Manni Singh. 7-8am.
- Apr 27: Postemergence Weed Control with Erin Burns. 7-8am.
- May 4: Wheat Foliar and Head Scab Management with Kim Cassida. 7-8am.
- May 11: Soybeans and N Applications with Kurt Steinke. 7-8am.
- May 18: <u>Dry Bean Planting with Scott Bales</u>. 7-8am.
- May 25: Plant & Pest Diagnostics Know Your Problems with Erin Hill. 7-8am.

Jun 28: Weeds Day. 8am-1pm. MSU Agronomy Farm, East Lansing. Hold the date, more details to follow.

MSU Extension Digest Briefs

PUBLISHED ON MARCH 31, 2023

<u>COVER CROP TERMINATION</u> - Developing a termination strategy for cover crops is an essential part of the
planning process to ensure there is no interference with the planting or management of the subsequent
cash crop.

PUBLISHED ON MARCH 30, 2023

- <u>MILD WINTER: A SUMMARY ANALYSIS OF THE WINTER OF 2023</u> An in-depth look at temperatures this winter and what it could mean for field crop production in 2023.
- <u>SOIL FERTILITY CONSIDERATIONS FOR CORN, SOYBEANS AND WHEAT</u> The Field Crops Virtual Breakfast series continues on April 6 with Kurt Steinke discussing fertility considerations when growing corn, soybeans and wheat.
- <u>MICHIGAN'S BIOCHAR</u> Chris Saffron and Mike Person of the Great Lakes Biochar Network discuss the properties of biochar and its industry potential in the Great Lakes region.

PUBLISHED ON MARCH 29, 2023

 <u>LABEL MANDATED TRAINING IN PESTICIDES: PARAQUAT AND DICAMBA</u> - Label mandated trainings are for specific active ingredients that are required by the EPA in addition to the restricted use pesticide certification. This information can be found on the label.

PUBLISHED ON MARCH 28, 2023

 <u>FINDING THE RIGHT CRISIS SUPPORT: ALTERNATIVES TO THE 988 SUICIDE & CRISIS LIFELINE</u> - Discover resources and support options for mental health crises to keep yourself and your loved ones safe during challenging times.

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PUBLISHED ON MARCH 27, 2023

• <u>MSU EXTENSION COMMERCIAL SOIL SAMPLE FORM</u> - This form can only be used for a commercial soil sample, purchased through MSU Extension offices, to be analyzed for nutrient recommendations.

PUBLISHED ON MARCH 20, 2023

 <u>DRY BEAN ANTHRACNOSE IDENTIFICATION AND MANAGEMENT</u> - Common bean anthracnose is one of the most economically important diseases affecting yield. Early identification is integral to mitigating losses.

PUBLISHED ON MARCH 16, 2023

- MAXIMIZING SOYBEAN INCOME WITH HIGH INPUT PRICES Research results will help soybean producers maximize income in 2023 despite high input costs.
- MECHANICAL SEED COAT DAMAGE IN DRY BEANS AND ITS EFFECT ON END-USE PRODUCT QUALITY Useful information for dry bean growers and processors to better understand mechanical seed coat
 damages and ways to prevent it.
- <u>ARE 2X2 STARTER FERTILIZER PROGRAMS PROFITABLE IN SOYBEANS?</u> Research results will help soybean producers maximize income in 2023 despite high input costs.

PUBLISHED ON MARCH 14, 2023

- <u>A NEW FIELD CROPS IPM COURSE OFFERS RUP CREDITS</u> Get an update on insect, disease, nematode and weed management with the new Field Crops IPM Course.
- HOW INSECTS SURVIVE COLD: THE POTENTIAL EFFECT OF A MILD WINTER Large insect populations are possible this year, but many factors determine overwintering survival and success.

PUBLISHED ON MARCH 13, 2023

MSU RESEARCHERS IDENTIFYING CORN TAR SPOT MANAGEMENT STRATEGIES - A team of MSU scientists
is working with regional and national partners to mitigate damage from corn tar spot, a disease that can
drastically reduce yields.

PUBLISHED ON MARCH 10, 2023

• <u>THE ANATOMY OF A SOIL TEST REPORT</u> - A summary of a soil test report to help you best understand and analyze the results to make effective farm management and soil fertility decisions.

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