

NOVEMBER 2023 | VOL. 23:09

Citrus from the Ridge to the Valley

CENTRAL FLORIDA CITRUS EXTENSION

November 2023

The USDA citrus crop estimate was released this past month. This year the October estimate is forecasting 20.5 million boxes of round oranges, 1.90 million grapefruit and 500,000 of tangerines/tangelos. The round orange number is 30% higher than last year's final number. Please take a look at the numerous opportunities to check out new citrus variety displays this winter. There is also an new program, Florida Agtech and AI Expo scheduled for this December. Information is included this month.

OJ Break registration is due this Friday, November 10th.

Several important dates are coming up this month, and are as follows:

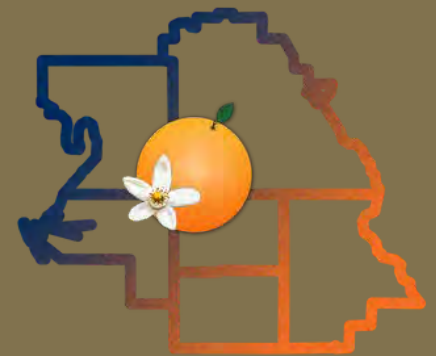
November 15 November Citrus Grower OJ Break meeting followed by at 1:00 p.m.
UF/IFAS CREC Citrus Breeding grower fruit evaluations - Lake Alfred

November 15 Winter Weather Watch Program Begins

Information on registration, CEUs, locations, etc., for these meetings are included in this newsletter.

We also have included information on subscribing to the annual Winter Weather Watch Program.

The Foundation for the Gator Nation
An Equal Opportunity Institution



UF | IFAS Extension
UNIVERSITY of FLORIDA

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November 2023

UF | IFAS Extension
UNIVERSITY of FLORIDA

OJ Break

November 15, 2023
10:00 am to 12:00 pm



UF/IFAS Citrus Research & Education Center
BHG Citrus Hall
700 Experiment Station Rd
Lake Alfred, FL

Lebeck Mealybug, Snails and IPC Update & Citrus Transgene-Free Genome Editing

Dr. Lauren Diepenbrock and Dr. Nian Wang from the UF/IFAS Citrus Research and Education Center, will be discussing these important topics.

9:45 am Check-in, BHG Citrus Hall

**10:00 am Lebeck Mealybug, Snails and IPC Update
Dr. Lauren Diepenbrock**

**11:00 am Transgene-Free CRISPR Genome Editing for Improving Citrus Resistance/Tolerance Against HLB
Dr. Nian Wang**

12:00 pm Lunch - Sponsored by Bo Griffin and TreeDefender

Pre-registration is required by Friday November 10, 2023

using Eventbrite:

https://ufl.qualtrics.com/jfe/form/SV_ahNilHPCttRQp2m

Or Contact Joy Spencer to register 863-519-1041

2.0 RUP CEU in Private, Ag Tree, Ag Row, and Demo & Research will be available.

1.0 Pest & 1.0 Crop Management Certified Crop Advisor CEU's will be available.

An Equal Opportunity Institution. UF/IFAS Extension, University of Florida, Institute of Food and Agricultural Sciences, Andra D. Johnson, dean for UF/IFAS Extension. Single copies of UF/IFAS Extension publications (excluding 4-H and youth publications) are available free to Florida residents from county UF/IFAS Extension offices.

In accordance with the provisions of ADA, auxiliary aids and services will be provided upon request with a 10-day notice. Contact Joy Spencer at (863) 519-1041. This material is available in an alternate format upon request.

2023 FALL WEATHER OUTLOOK

BY CHRIS OSWALT

The National Oceanic and Atmospheric Administration (NOAA) has recently published its latest weather outlook for November, and the outlook for temperature and rainfall is particularly noteworthy. According to the outlook, there is a higher probability of above-normal temperatures during this period (as indicated in Figure 1). This means that we may expect to experience warmer temperatures than typically seen during November.

The rainfall outlook (Figure 2) also presents a different picture, leaning toward above-normal rainfall. This suggests that we may receive above-average amounts of precipitation than would be typical for November.

The El Niño Southern Oscillation (ENSO) forecast also plays a crucial role in shaping the weather outlook for this period. Currently, we are under a strongly building El Niño condition. The forecast is for existing El Niño conditions to gradually strengthen into the winter of 2023-24. This strengthening is forecasted to result in a peak moderate to strong El Niño November to January. It is anticipated that these El Niño conditions will continue (with 80% probability) through March and into May 2024. In this situation, we should look for cooler daily temperatures due to increased cloudiness associated with increased rainfall expected during winter El Niño conditions.

In conclusion, the latest NOAA weather outlook for the November 2023 period suggests that we may experience warmer temperatures and above-average rainfall than what is typical. However, the U.S. Monthly Drought Outlook has dry conditions developing for the west coastal area of peninsular Florida from just north of Tampa to coastal Lee County (depicted in Figure 3).

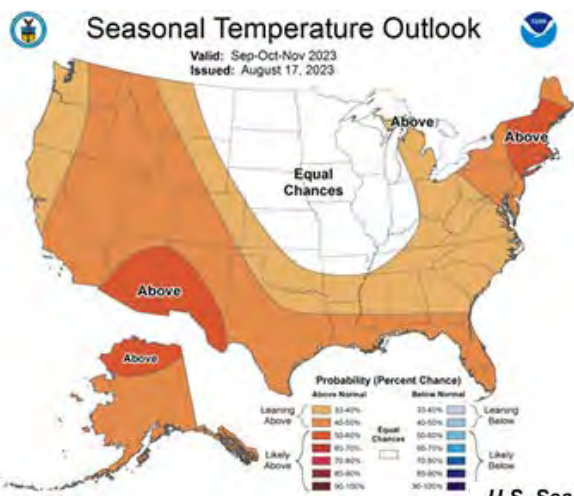


Figure 1 Fall 2023 temperature outlook

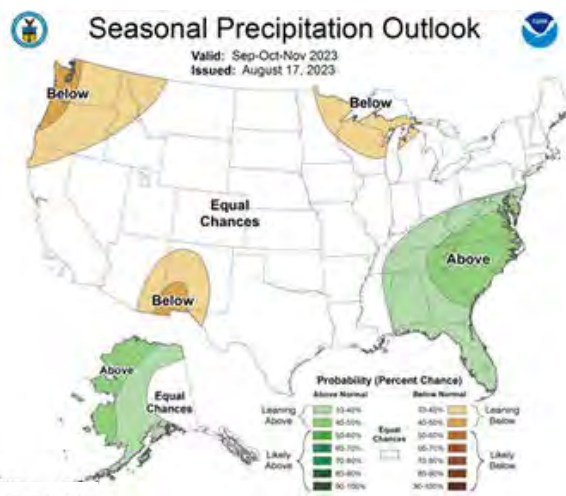


Figure 2 Fall 2023 precipitation outlook

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

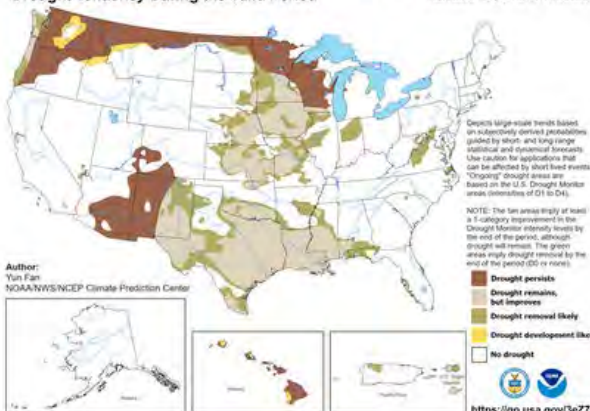


Figure 3 Fall 2023 drought outlook

Winter Weather Watch

Polk County Cooperative Extension Service
Chris Oswalt Phone: 863-519-1052
Email: wcoswalt@ufl.edu

UF/IFAS Polk County Cooperative Extension Service

The 2023-24 version of the Winter Weather Watch will begin on November 15, 2023. Time is short so send in your subscription form to receive timely agricultural winter weather forecasts and information.



The 2023-24 edition of the Polk County Winter Weather Watch program will begin on November 15, 2023. The program provides growers with winter weather forecast information specifically geared

toward agricultural interests in West Central and Southwest Florida. The program provides subscribers with an unlisted phone number for (24 hour/7 days a week) access to daily weather forecasts. The zone forecasts are from the National Weather Service (NWS) and are listed on the automated phone menu, so you can select the products you are interested in. Forecasts include the zone forecasts, 6-10 and 8-14 day outlook forecasts. In addition to the forecasts we have special weather narratives provided as needed in the event of freezing temperatures and a weekly outlook provided by our own meteorologist David Faysash (Fred Crosby is actually stepping back starting this season). When freezing temperatures are predicted in our area additional updates will include the afternoon zone forecast and the modified sunset brunt minimum temperature equation. We will also provide the weekly citrus leaf freezing temperatures (also

available on FAWN) and the 2023-24 Winter Weather Watch manual.

Subscriptions for the Winter Weather Watch program are only \$100.00 for the entire 4 month period (Nov 15 to Mar 15). The cost is about the same as one tank (well maybe two now days) of gas for your pickup truck. You can subscribe to the Winter Weather Watch by completing and returning a “subscription form” or calling Joy Spencer at 863-519-1041 or email at j.spencer@ufl.edu



Forecast Schedule

The following schedule lists the products available from the Winter Weather Watch. **Please note with David onboard this season the forecast schedule**

has been modified. The times and specific days of the week and the forecasted minimum temperature dictate when these forecasts products will be updated. Our Winter Weather Watch area tentatively includes the following areas by county: Pasco, Hillsborough, Polk, Highlands, Hardee, Manatee, Sarasota, DeSoto, Charlotte, Lee, Glades, Hendry and Inland Collier.

Introducing David Faysash

David has a bachelor's and master's degree in Meteorology from the Florida State University. As a graduate student he specialized in satellite remote sensing of land surface temperatures and atmosphere-biosphere interactions. David teaches meteorology courses at Valencia College in Orlando and Hillsborough Community College in Tampa. He was the outreach director for the West Central Florida Chapter of the American Meteorological Society where he organized and taught teacher in-

service trainings about the weather. David has lived in Wesley Chapel (Pasco County) since 2001 and has been avidly watching West Central Florida's weather since then.

Fred Crosby indicated he would be willing to work with David this first season with the idea of eventually passing the torch on to David. I have spoken with David and think that he will also bring additional insight to the NWS forecasts as related to our agricultural enterprises.

FORECAST SCHEDULE

Forecast Product	Above 32° F	32°-29° F	Below 28° F
<i>Zone*</i>	<i>Daily 8:30 a.m.</i>	<i>Daily 8:30 a.m.</i>	<i>Daily 8:30 a.m.</i>
<i>6-10 & 8-14 Day Outlooks*</i>	<i>Mon/Wed/Fri 8:30 a.m.</i>	<i>Mon/Wed/Fri 8:30 a.m.</i>	<i>Mon/Wed/Fri 8:30 a.m.</i>
<i>Weekly Outlook</i>	<i>Friday 5:00 p.m.</i>	<i>Friday 5:00 p.m.</i>	<i>Friday 5:00 p.m.</i>
<i>Leaf Freezing Temperatures</i>	<i>Friday 5:00 p.m. & on the Florida Automated Weather Network (FAWN)</i>	<i>Friday 5:00 p.m.</i>	<i>Friday 5:00 p.m.</i>
<i>Special Weather Narratives</i>	<i>As Needed</i>	<i>Daily 8:30 a.m. & 6:00 p.m.</i>	<i>Daily 8:30 a.m. & 6:00 p.m.</i>
<i>Afternoon Zone*</i>	<i>None</i>	<i>Daily 4:00 p.m.</i>	<i>Daily 4:00 p.m.</i>
<i>Sunset/Brunt</i>	<i>None</i>	<i>As Needed</i>	<i>Daily 7:00 p.m.</i>

*NWS products are subject to changes in schedule timing based on NWS release of these products.

2023 - 2024 WINTER WEATHER WATCH PROGRAM

NOVEMBER 15, 2023 TO MARCH 15, 2024
REGISTRATION FEE: \$100.00



It's once again time to register for the upcoming 2023 - 2024 Winter Weather Watch Program. Upon receiving your \$100.00 registration payment, you will be sent an unlisted telephone number with which you can retrieve the latest **Ag Forecasts**, 24/7. **Please do not give this number to others.** The *Winter Weather Watch Program* is funded by the registration fees to pay for telephone equipment rentals, long distance calls, repairs and our consulting meteorologist. I will be putting a text messaging list together for notifying subscribers of unscheduled weather forecast updates. If you would please indicate which number to use for this service in the following format on your subscription form, i.e. (863) 519-1052 (txt). One additional request would be to indicate the counties that you are interested in receiving weather forecasts. If you have one that is not listed please let me know and I might be able to take it under consideration.

2023 - 2024 Winter Weather Watch Program

NAME: _____ PHONE NUMBER: _____

ADDITIONAL PHONE NUMBERS: _____

COMPANY: _____

MAILING ADDRESS: _____

EMAIL ADDRESS: _____

CITY: _____ ZIP CODE: _____

COUNTIES OF INTEREST:

INLAND PASCO

INLAND CHARLOTTE

INLAND HILLSBOROUGH

INLAND LEE

POLK

GLADES

HIGHLANDS

HENRY

HARDEE

INLAND COLLIER

DESOTO

REGISTRATION FEE \$100.00

PLEASE RETURN THIS REGISTRATION FORM AND YOUR CHECK PAYABLE TO:

**POLK COUNTY EXTENSION CITRUS ADVISORY COMMITTEE
PO BOX 9005, DRAWER HS03
BARTOW, FL 33831-9005**

Upcoming Events

UF/IFAS CREC Citrus Breeding- Lake Alfred

700 Experiment Station Rd., Lake Alfred, FL – Ben Hill Griffin Auditorium

November 15, 2023 1:00 PM After the OJ Break

December 20, 2023 1:00 PM After the OJ Break (featuring presentations on citrus breeding)

January 23, 2024 1:00 PM

February 21, 2024 1:00 PM After the OJ Break

Attendees will be able to sample a range of varieties and complete survey forms that provide valuable feedback to the CREC Plant Improvement Team.

Members of the Plant Improvement Team (Dr.'s Gmitter, Grosser, Chater, Wang) will be present to answer questions. Due to the heavy focus on orange and orange-like material, juice samples are often provided for displayed selections that may have potential in the juice stream. There are a large number of promising selections identified each year, but the team makes a concerted effort to keep the number of displayed selections to a manageable number.

USDA-ARS Open House, Variety Display and Field Tour

23402 USDA Rd., Groveland, FL

Date: December 8, 2023

Time: 10:00 AM

Attendees will have an opportunity to sample fruit from promising USDA-ARS citrus selections. Though fruit for potential use in the orange juice stream is primary, other fruit types for possible fresh market use will also be displayed. Surveys are generally collected to help inform release decisions. Members of the USDA-ARS research team, farm staff, administration and Foundation will be present to answer questions.

The event also features a Hayride tour of the farm, with research updates at designated stops. This is the only such opportunity during the year. Significant infrastructure projects have been underway at the farm (with the support of Florida Citrus Mutual, Florida Department of Citrus, Florida Citrus Commission, and the Florida Legislature). New research plantings will be in the ground by that time.

Finally, Florida Citrus Mutual is sponsoring a lunch at the conclusion of the event. This is always a highlight. RSVP requested by no later than December 4, 2023 to Lucy.Torres@ffva.com



The poster features a word cloud on the left with terms like 'AI', 'Agriculture', 'AgTech', 'Citrus', 'Strawberries', 'Vegetables', 'Watermelon', 'Tomatoes', 'Crops', 'Management', 'Florida', 'AI', 'Vegetables', 'Technologies', 'Carbon', 'Energy', 'AI', 'Vegetables'. A large white arrow points from the word cloud to the event details. The event title 'FLORIDA AGTECH AND AI EXPO' is in red at the top right. Below it, the location 'Charlotte Harbor Event & Conference Center Punta Gorda, FL' is listed. The date 'December 14, 2023' is inside the arrow. At the bottom left, it says 'NOW OPEN All Agriculture commodities' and 'Registration for Exhibitors, Sponsors and Attendees'. At the bottom right is a QR code. The URL 'swfrec.ifas.ufl.edu/flagtechaexpo/' is at the bottom left.

FLORIDA AGTECH AND AI EXPO

December 14, 2023

NOW OPEN
All Agriculture commodities

Registration for Exhibitors, Sponsors
and Attendees

swfrec.ifas.ufl.edu/flagtechaexpo/



Developing Snail Management in Citrus Groves

Researchers: Lauren M. Diepenbrock, Nicole Quinn

Contact: Lauren M. Diepenbrock,
ldiepenbrock@ufl.edu UF/IFAS CREC

Take Home Message:

- Baits are currently the best tool for *Bulimulus* snail management.
- Bulimulus bonariensis* activity began in mid-April 2023 and has been continuous since that time.

Effort Statement: Beginning in January 2023 with funding from CRDF, we began monitoring snail population activity. In the latter portion of 2023, we will be looking for evidence of naturally-occurring predators for this pest.



Summary: *Bulimulus bonariensis* (sporadicus), a land-dwelling snail, has been impacting several industries throughout central and north Florida including citrus. Damage from this pest largely comes from irrigation jets thereby reducing the amount of water getting to roots and consuming young tree foliage in individual protective covers (IPC). Snails and slugs are challenging to control through topical pesticides. To date, the most effective controls for this group of pests come in the form of baits. Previously, we evaluated several pesticides and molluscicidal baits and chemistries under laboratory conditions. None of the topical chemistries tested, including bifenthrin and carbaryl, impacted the snails. Baits with metaldehyde, sodium ferric EDTA, and iron phosphate killed over 90% of snails in laboratory trials.

This is promising and field trials are currently underway. To inform timing of management practices, we are currently monitoring *B. bonariensis* populations throughout central Florida. We expect that timing bait applications to periods of population growth will have a greater impact on the overall snail population than random applications. Monitoring began in late fall of 2022 and first emergence of juveniles was documented in mid-April. Since this time, steady mixed age populations have been recorded at all sites. Along with monitoring, we are evaluating two types of traps for helping growers determine when to time management activities in the future.

Source: Keeping Florida Citrus Growers Informed. Aug 2023, pg. 36. UF/IFAS CREC. Lake Alfred.

Lebeck Mealybug Seasonal Population Development

Researchers: Lauren M. Diepenbrock

Contact: Lauren M. Diepenbrock, ldiepenbrock@ufl.edu UF/IFAS CREC

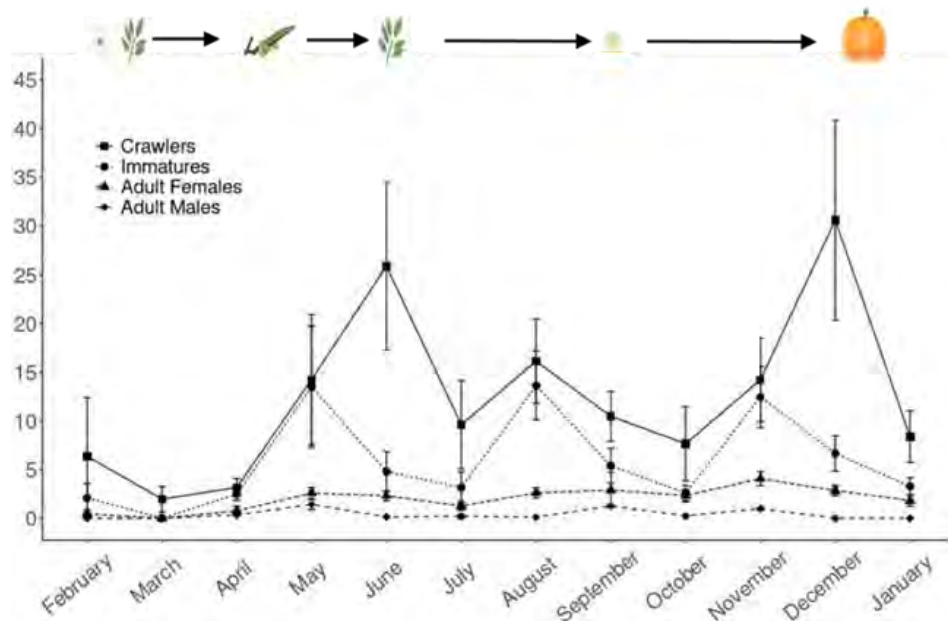
Take Home Message:

- Lebeck mealybug populations are not tied to flush production.
- The majority of the lebeck mealybug population is in the juvenile stage, which is highly susceptible to most pesticides throughout the year.
- A systemic chemistry applied prior to fruit set can protect developing fruit.

Effort Statement: Population structure has been documented.

Summary: Lebeck mealybug populations were sampled in commercial citrus groves in Central Florida. Analysis of the seasonal trapping data provides trends now easily observable. Using these trends, we can make initial recommendations. First, mealybug populations are not tied to flush cycles, so their management cannot be planned around peaks in flush production. Second, based on the observed trends, we believe that their population is more likely tied to climatic variables than citrus tree phenology. And of course, the availability of resources, like food and shelter, always support insect populations. Both of these are readily available in groves. However, without true winter periods in Florida, timing populations to temperature is not clearcut. We see populations growing during fruit set, which is also the time at which fruit are most vulnerable to damage from their feeding. While not quantified, growers that have known populations of lebeck mealybug and who apply Movento® prior to fruit set have reported less fruit drop and visible damage from the mealybug.

By looking at the population structure, we see that the population is largely composed of crawlers and immatures throughout the year. These two life stages are susceptible to most chemistries and even many adjuvants, suggesting that chemistries applied for other pests including Asian citrus psyllid (ACP), citrus leafminer (CLM), Diaprepes, and rust mites throughout the remainder of the fruit production period should reduce the overall impact of lebeck mealybug by reducing the number surviving to reproductive maturity. This strategy should work for juice production, however increased management will be required for fresh fruit production.



Source: Keeping Florida Citrus Growers Informed. Aug 2023, pg. 37. UF/IFAS CREC. Lake Alfred.

Food Safety Event Calendar

UF | IFAS Extension
UNIVERSITY of FLORIDA

Fall + Winter 2023



In-Person

Produce Safety Alliance Grower Training

A one-day course for produce growers and packers who fall under FSMA's Produce Safety Rule.

- **September 27th, 2023 – Homestead:**
<https://psa092723.eventbrite.com>
- **October 12th, 2023 – Wauchula:**
<https://101223.eventbrite.com>
- **November 15th, 2023 – Palatka:**
<https://psa111523.eventbrite.com>
- **November 30th, 2023 – Immokalee:**
<https://psa113023.eventbrite.com>
- **January 17th, 2024 – Quincy:**
<https://psa011724.eventbrite.com>



Signup for an On-Farm Readiness Review

A free educational opportunity intended to prepare growers for FSMA Produce Safety Rule inspection. Participants must have taken a Produce Safety Alliance Grower Training.

To sign up for an On-Farm Readiness Review, visit: www.fdacs.gov/ofrr

Remote

Produce Safety Alliance Grower Training

A three-day, three-hour virtual course for fruit and vegetable growers and packers who fall under FSMA's Produce Safety Rule.

- **August 15-17, 2023:**
<https://psa081523.eventbrite.com>
(Out of State): <https://psa081523.eventbrite.com>
- **September 5-7, 2023:**
<https://psa090523.eventbrite.com>
(Out of State): <https://psa090523.eventbrite.com>
- **December 12-14, 2023:**
<https://psa121223.eventbrite.com>
(Out of State): <https://psa090523.eventbrite.com>

Remote

HACCP for Florida Fresh Fruit & Vegetable Packinghouses

A four-day virtual course focuses on HACCP principles for fruit and vegetable packinghouses.

- **August 28th-31st, 2024**
<https://haccp082823.eventbrite.com>
Email: taylorlangford@ufl.edu

For registration questions, contact sarahmccoy@ufl.edu
For general food safety questions, contact taylorlangford@ufl.edu



PRIVATE APPLICATOR / AG TREE CROP PESTICIDE TRAINING

Location:

- Citrus Research and Education Center
(700 Experiment Station Road Lake
Alfred, FL 33850)

Hours:

- 8:30am-3:00pm

Date:

- November 28, 2023

Phone:

- 863-519-1049 or 863-519-1041

Cost:

- \$15.00

CEU's (Due to changes):

- 3 Tree Crop, or 3 Row Crop or 3
Private
- 1 CORE 487 or 482

About the Event:

- This workshop is a training for people
looking to obtain a Private or an Ag.
Tree Pesticide License. CEUs will also
be provided.

Registration at:



or

<https://shorturl.at/iqIj7>



2023

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