



Shades of Green

Athens-Clarke County Agriculture and Natural Resources E-Newsletter

July 2021



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A note from Athens-Clarke County Agriculture & Natural Resources

Hello readers! It certainly looks and feels like summer in Georgia right now. We all could probably use a drink of water and so could our plants. If you are concerned about your water usage in your garden and/or landscape, make sure to check out the [article](#) later in this newsletter which discusses, some actions you can take now to help conserve water in your landscape and keep your plants hydrated. Summer is a busy time for our local pollinators. We love to raise awareness of these hard working creatures and are looking forward to our [July Green Thumb Lecture](#) where one of our Master Gardeners will be discussing how to garden for pollinators.

We are happy to announce that coming soon in Fall 2021 is our [2021 Master Composter program](#)! Check out the flyer later in this issue for info and how to apply.

Are you new to this e-newsletter? Make sure to take a look at our [“Stay in the Loop!”](#) and [Local Farmers Market](#) pages to find out about local events and the farmers markets you can visit this season.

We hope you enjoy this month’s issue of “Shades of Green”.

Take care,
Athens-Clarke County Agriculture and Natural Resources



Value Your Herb Garden, Gingerly!

By Rita Mathew, Athens-Area Master Gardener

Herb gardens in Europe date back to the Middle Ages. However, there is evidence of ginger being imported by the Roman Empire from India, and there was interest in herbs and spices even in ancient civilizations, such as the Middle East, Far East and the Americas.

Today, the business of producing fresh herbs for consumption has become one of the fastest growing industries in agriculture. The United States produces about 200 billion pounds of herbs and spices per year¹ for culinary and medicinal use. Herbs and spices also have a history of co-evolution with foragers such as beetles, birds and bees. This makes them valuable for pollinators, and they are also good as companion crops.

Herbs versus Spices

The terms herbs and spices are used rather loosely. The term herb is often described as any plant or plant part that has historically been used for culinary or fragrance purposes. Most herbs, such as Chives, Parsley, Sage, Thyme, Oregano are perennial. Cilantro and Basil, however, die down at the end of the season. Spices are obtained from roots, flowers, fruits, seeds or bark. Spices can be woody or herbaceous plants. Some spices are used not only to add taste, but also as a preservative. Examples of spices are Ginger (Figure 1 – Top right), Turmeric, Garlic, Cinnamon, Cloves, Saffron.



Figure 1

2

The leaves of *Coriandrum sativum* are the source of cilantro (herb), while coriander (spice) is from the plant's seeds. Dill is another example. The seeds are a spice while dill weed is an herb derived from the plant's stems and leaves. Some plants are used to both flavor food as well as for their health benefits. Salt is neither a herb nor a spice. It is actually a mineral!

Culinary Value of Herbs

The fresh ginger root (See Figure 2), *Zingibar officianale*, also known as true ginger, is edible. What is less well known about the ginger plant is that the leaves are also edible, raw or cooked. Add them to salads, couscous, tabouleh or soups. Their mild flavor also enhances meat, poultry or fish.



Figure 2

3

Ginger may be used in both desserts, as well as savory dishes. Wonderful recipes are available in "There is a Season"⁴.

Herb teas are well known. How about herb butter, herb oil, herb vinegar and herb salt? All these variations offer possibilities for a festive table or a gift basket!

Medicinal Properties

While herbs have a long history of medicinal use⁵, ginger is particularly interesting due to the presence of gingerol, a powerful anti-inflammatory compound that helps alleviate pain caused by arthritis, while boosting the immune system.⁶

Ginger is a good source of copper, magnesium, manganese, potassium, and vitamin B6. Historically, it has been used to relieve symptoms of gastrointestinal distress. It is also safe for pregnant women who

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are experiencing nausea and vomiting.

Pollinators

Ginger, a member of Zingiberaceae family of plants, is one of the earliest angiosperms (or flowering plants) that evolved in the Cretaceous⁷ period. A study of plant pollinators in the Nepalese Himalayan Mountains⁸ (See Figure 3), confirms that during the late cretaceous period diversification of Zingiberaceae, a predominantly tropical family, took place allowing the plants to adapt to more temperate and alpine environments. To date, the Zingiberaceae family has about 1300 species in 52 genera, including Roscoeia, a Himalayan endemic alpine genus with 22 species.

It's adaptability to varied climates makes ginger a favorite for herb gardeners. It is easily grown in zone 8 and higher, and will adapt to more northern zones with winter protection or when grown in pots that can moved indoor.



Figure 3

Figure 3 Clockwise

A- Flowering individuals of *R. alpina*; B- A beetle (*Mylabris* sp.) feeding on the pollen grains of *R. alpina*; C- A beetle resting on the outer part of corolla with thousands of pollen grains attached throughout its body; D- A moth (*Macroglossum nycteris*) caught from a flower of *R. alpina* while visiting the flower for nectar feeding; E and F indicate the gradual shrinkage of style to allow self-pollination in *R. alpina*. The shrinkage of style occurs ca 2 mm to facilitate self-pollination. E- The position of stigma on the first day, and F- The position of stigma on the third day of flowering.

Companion Crops

Companion plants assist in the growth of others by attracting beneficial insects, repelling pests, or providing nutrients, shade, or support. Legume shrubs like pigeon pea are perfect companions for ginger. Their canopy is very open, letting just enough light through for the ginger to thrive. You can prune them if you need mulch,

and the nodules formed by soil bacteria add nitrogen to the soil. It doesn't matter if you damage the pigeon pea roots when digging up your ginger. Pigeon pea will self-seed and regrow.

*Some examples of **companion crops** are those that can provide shade and have similar soil conditions (slightly acidic soil) as ginger:*

Annual legumes - red clover, peas, bush and pole beans.

Herbs - cilantro, kafir lime, chilli peppers and lemon grass.

Fruit Trees – apples, figs, pears

*Examples of crops that are **NOT** recommended to be planted with ginger are those that require full sun but do not provide enough shade for the ginger:*

Eggplant, goji berries, and tomatoes.

Growing Ginger

Ginger grows best in slightly acidic, moist, well-drained soil and partial shade and temperatures of above 50o F. The best soil for ginger is loose, loamy, and rich in organic matter. Good drainage is essential since the rhizomes may rot under waterlogged conditions. Mulch retains water, and helps control weeds. Ginger may be grown in large containers on a shaded deck or patio. They have a longer bloom period if grown in large pots, at least 24 inches in diameter.

Planting

Ginger is best planted in early spring. Before planting, cut the ginger rhizome into 1- to 1½-inch pieces and set them aside for a few days to allow the cut surface area to heal and form a callus. Each piece should be plump, with well-developed growth buds. Plant the rhizomes 6 to 8 inches apart, 2 to 4 inches deep, and with the growth buds pointing upward. A good source of ginger for

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planting is fresh rhizomes from another grower. If you are buying ginger from a grocery store, either purchase organic ginger, or soak the rhizomes in water overnight, because they are sometimes treated with a growth retardant.

Fertilizing

If the soil is less than ideal, add a slow-release fertilizer at planting. Afterward, liquid fertilizer may be applied every few weeks. These soil amendments are especially needed in regions of heavy rainfall, where rain can leach essential nutrients from the soil. You can also add compost, which will supply some nutrients, and retain moisture in the soil. Ginger benefits from fertilizer containing high levels of phosphorus (P). Have the soil tested first and amend the soil before planting according to the test recommendations.



Figure 4

<https://agrilifeextension.tamu.edu/library/gardening/ginger>

Harvesting

Ginger is harvested by digging up the entire plant (Fig. 4). Although it may be harvested at any stage of maturity, the best time to harvest is when the plant is 8 to 10 months old. After harvest, save some of the rhizomes for replanting soon after digging.

Conclusion

Ginger may have its origins in the Himalayas, but growing ginger need not be like climbing Mt. Everest. Attractive to pollinators, good as a companion crop, with medicinal and culinary value, ginger adds a niche in any Herb Garden ecosystem!

1 <https://extension.psu.edu/herb-and-spice-history>

2 Photo by Seksak Kerdkanno www.Pixabay.com

3 Photo by Gate 74 at www.Pixabay.com

4 Editors Keifer, S and Mathew, R. "There is a Season: An Intention Approach to Sustenance" RTA Consulting, Athens, GA (2020)

5 Berle, D. Medicinal Herbs in "There is a Season: An Intentional Approach to Sustenance" RTA Consulting, Athens, GA (2020)

6 <https://agrilifeextension.tamu.edu/library/gardening/ginger/>

7 The Cretaceous is a geological period that lasted from about 145 to 66 million years ago. It is the third and final period of the Mesozoic era, as well as the longest.

8 Paudel BR, Shrestha M, Dyer AG, Li QJ. Ginger and the beetle: Evidence of primitive pollination system in a Himalayan endemic alpine ginger (*Roscoea alpina*, Zingiberaceae). PLoS One. 2017 Jul 19;12(7):e0180460. doi: 10.1371/journal.pone.0180460. PMID: 28723912; PMCID: PMC5516977.

Keep your lawn disease-free with these tips from UGA Extension

By Tripp Williams

As warm-season turfgrasses continue to green up, diseases are rearing their ugly heads. The main culprit this time of year is a fungus, *Rhizoctonia solani*, that causes **large patch disease** in lawns. Large patch can infect all warm-season turfgrasses, but centipede, St. Augustine, and zoysia are particularly susceptible.

Large patch appears in **roughly circular patches that are yellow, tan or straw-brown with orange-brown borders**. The patches are initially 2 to 3 feet in diameter, but can expand up to 10 feet or more, as the name “large patch” indicates. Early in the morning, a grayish ring can be seen in the area where the diseased turfgrass and the healthy turfgrass meet.

Large patch occurs in the spring and fall when environmental factors are favorable. Favorable conditions include **humid days** with temperatures ranging from 75 to 90 degrees Fahrenheit and nighttime temperatures above 60 F. The higher temperatures and humidity lead to an extended period of leaf wetness.

Turfgrasses are also more susceptible when coming out of — or going into — dormancy. Therefore, spring and fall are the times of year the grass is most vulnerable because it is more stressed and not growing as actively.

The best way to protect turfgrass from disease is to properly manage it by following lawn care practice recommendations. More information on warm-season turfgrass identification and lawn calendars for season-appropriate practices are available from University of Georgia specialists on the [GeorgiaTurf website](#).



Follow these best practices, which are easier and cheaper than using fungicides, to mitigate turf disease in your lawn:

- **Avoid high nitrogen rates on warm-season grasses in mid- to late fall or in early spring.** The disease-causing fungus readily attacks the lush growth of grass that nitrogen promotes. Avoid fast-release forms of nitrogen fertilizer.
- **Irrigate grass only when needed and to a depth of 4 to 6 inches — about 1 inch of irrigation water per week.** Water early in the morning to reduce extended leaf wetness. This disease can spread fast when moisture is present.
- **Avoid spreading disease to other areas.** Remove clippings to prevent spread to other areas during mowing.
- **Keep lawns mowed on a regular basis to the proper height for the grass species.** Lower or higher than optimum mowing heights can increase disease severity.
- **Provide good drainage for both surface and subsurface areas.** Correct soil compaction with core aeration.
- **Test the soil and apply lime and fertilizer according to the test recommendations.** This will help promote good health and vigor. See UGA Cooperative Extension Circular 896, "[Soil Testing for Home Lawns, Gardens and Wildlife Food Plots](#)," for more information.

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Keep your lawn disease-free with these tips from UGA Extension (continued)

Centipede, St. Augustine and zoysia are at peak growth when soil temperatures reach 65 F. In Columbia County, Georgia, the soil reaches this temperature in late April to early May. This is the optimum time to fertilize. This is especially true of centipede and St. Augustine grasses. **When these turfgrasses are fertilized too early, they turn yellow from stress.** The nitrogen in the fertilizer causes more shoot growth than the root system can support, which can cause large patch disease to develop.

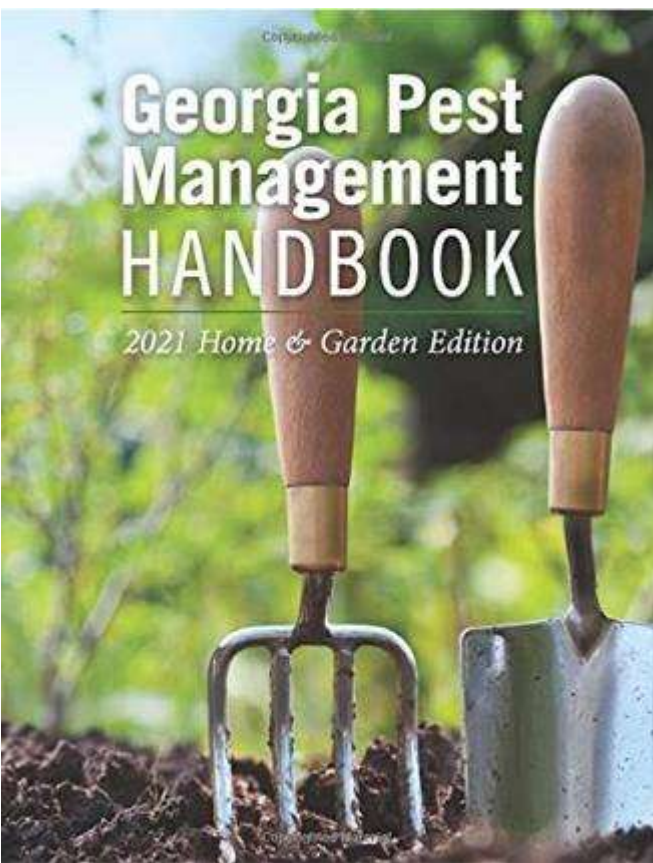
If prevention is not an option and treatment is warranted, fungicide applications can help manage large patch. There are many fungicides on the market labeled for use on lawns, and most will aid in large patch management. In order for the fungicide to work properly, follow the directions on the product label.

A great resource for selecting turf fungicide products is the home and garden edition of the [2021 Georgia Pest Management Handbook](#). The handbook gives current information on the selection, application and safe use of these products. The home and garden edition also covers pest control around homes, on pets, for pests of home garden vegetables, lawns, fruits and ornamentals, and for pests of public health interest associated with our homes.

To order a \$29.95 print copy of the home and garden edition of the 2021 Georgia Pest Management Handbook, visit the [UGA Press website](#) or [Amazon.com](#).

To order by email or phone, send a message to orders@longleafservices.org or call **800-848-6224**. A Kindle edition can be purchased for \$22.49 at [Amazon.com](#).

(Tripp Williams is the Agriculture and Natural Resources Extension agent in Columbia County, Georgia.)



UGA Extension recommends water-wise irrigation methods for the home landscape

By Martin Wunderly

If you have been working on your home landscape recently, you might be wondering, “**Are we in a drought?**” It certainly seems like we could be, especially after the temperatures climbed and precipitation dwindled over the course of May. And while there are significant areas of moderate drought in North and South Carolina, we only have a few reports of abnormally dry conditions around Chatham County.

But you might still be reaching for the watering can here in Georgia, considering recent hot and dry conditions over most of the state.

While it may be too late to redesign your garden for drought preparedness, there are some actions you can take now to help conserve water in your landscape and keep your plants hydrated. **If you have to begin irrigating under our current conditions, you can do so with these water-wise methods and conservation practices.**

- Add mulch where it is lacking** to conserve any remaining soil moisture and keep competing weeds at bay. An accumulation of natural leaf mulch can help keep soil moist for a long time.

- Raise the lawn mower blade height in summer months.** Longer grass protects soil moisture. Use a mulching mower, so that clippings fall between grass blades and protect soil moisture by acting like mulch. The lawn will need to be cut frequently enough to keep the clippings small.



- Practice deep watering** that penetrates the soil to 6 inches and encourages deep root development. Deep root systems are more drought tolerant. Deep watering reduces evaporation, and moisture persists longer in the soil. This allows less frequent watering each week.

- Water your lawn and outdoor plants between 4 p.m. and 10 a.m.** to reduce evaporation loss by avoiding the warmest and sunniest part of the day. They will survive with a few deep irrigation events per week in the morning or evening.

- Be careful not to overwater plants** — it is wasteful and can hinder growth, leach nutrients past the roots, increase disease potential and create excess runoff pollution. If water runs off your yard onto the street from your irrigation system, split your watering times into two or more sessions and make sure sprinkler heads are pointed in the right direction while monitoring for leaks or broken nozzles.

Taking these actions will help your water resources go a little further in keeping your landscape healthy during warm and dry times.

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UGA Extension recommends water-wise irrigation methods for the home landscape (continued)



But to be prepared for the next potential drought, consider the following long-term landscape practices:

- Put the right plants in the right place** by following planting suggestions for shade/sun, water needs and soil drainage. This will help prevent the need for excessive irrigation.
- Use drought-tolerant, biome-appropriate or native plants.** They perform better in our local climate.
- Incorporate native trees and shrubs in your landscape.** After establishment, they require less irrigation and are more drought resistant. They reduce soil moisture evaporation by shading the ground. Find some in UGA Cooperative Extension Bulletin 987, "[Native Plants for Georgia Part I: Trees, Shrubs and Woody Vines.](#)"
- Aerate lawns at least once a year.** This improves percolation, decreases run-off and encourages turfgrass roots to grow deeply and become more drought tolerant.
- Add organic matter to sandy or clay soils** to increase the infiltration and storage of water. Maintaining a good layer of mulch year after year will also provide healthy soil amendments.

- Avoid soil compaction** from heavy equipment or vehicles that prevents rainwater infiltration and harms plant roots.
- Harvest rainwater for long-term storage** with multiple rain barrels or large cisterns. UGA Extension Bulletin 1372, "[Rainwater Harvesting for System Designers and Contractors,](#)" provides technical information about rain barrel and cistern designs.
- Use drip irrigation for shrubs, vegetables, and flower beds.** It reduces water evaporation by getting water straight to the roots.

Managing your garden landscape for drought preparedness with these practices will give you less to worry about the next time hot and dry conditions occur. It will also save you time and costs by reducing irrigation needs and maintenance, which means more time for relaxing and enjoying your lawn and gardens.

(Martin Wunderly is the area water agent for UGA Extension's Northeast District.)



Athens-Clarke County Extension

Virtual Green Thumb Lectures

2021 Free Monthly Gardening Class Series



July: Gardening for Pollinators

Please join us online for an informative presentation on topics including:

- Benefits of a pollinator garden
- How to build your pollinator garden
- Communicating with your community to help aid pollinator conservation

Gardeners of all experience levels are welcome.

WHEN:

Wednesday, July 14 · 6:00-7:30 pm

WHERE:

ONLINE via Zoom.com

Specific link to join Zoom meeting will be sent to the email you register with.

TO REGISTER:

Registration is required. Please register by July 13 by visiting

www.accgov.com/gardening

For questions:

Contact Laura Ney, Extension Agent at
706-613-3640 or lney@uga.edu

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Stay in the loop! (local or online activities and events)

Star Spangled Classic: Fireworks at Athens Ben Epps Airport

- July 3rd, 2021
- Parking opens at 7pm, and the fireworks show will start around 9:30pm
- FREE admission!
- Click [here](#) for more information



Sandy Creek Nature Center Events:

July Naturalist Walk:

- July 3rd, 2021 10-11am at Sandy Creek Nature Center Outdoor Classroom
- Free and open to everyone ages 2+

Creek Walk:

- July 31st, 2021 10-11am at Sandy Creek Nature Center Walker Hall Complex
- Free and open to everyone ages 4+

Visit the [Athens-Clarke County Nature Programs page](#) for more information about these events.

The State Botanical Garden of Georgia is open for the public, but make sure to check out [their website](#) for updates and hours. Contact the State Botanical Garden of Georgia by emailing garden@uga.edu or calling 706-542-1244.

- [Discover education activities for home.](#)
- Check out their [event calendar](#) for more offerings.

Georgia Farm Bureau® Farm Passport

- The Farm Passport is your guide to finding and visiting farms throughout Georgia. You and your family can explore the state, support local farms, and eat fresh food while learning where it comes from!
- You can download a printable copy of the passport or find a location to pick one up, as well as find out more information here:

<https://www.gfb.org/education-and-outreach/passport.cms>



UGA Extension offices around the state are working hard at developing quality online presentations on various topics.

Visit the UGA Extension [event calendar](#) to see events happening local to our county as well as virtual opportunities.

Local Farmers Markets



The **Athens Farmers Market** is taking place on Saturdays from 8am-12pm at Bishop Park. Make sure to visit [their website](#) for updates and details.

Find them on Facebook: [@AthensFarmersMarket](#)

Follow them on Instagram:
[@athensfarmersmarket](#)



West Broad Farmers Market

Online ordering with pick-up and delivery options are available on Saturdays.

Visit [their website](#) to find out how to order online.

Find them on Facebook:

[@WestBroadMarketGarden](#)

MARIGOLD



MARKET

The **Winterville Farmers Market** is taking place on Saturdays from 10am-2pm at Pittard Park. Visit [their website](#) for more information.

Find out more on Facebook:

[@marigoldmarketwinterville](#)

Instagram: [@marigoldmarketwinterville](#)

Would you like to become a Georgia Master Composter?



If you enjoy working with people, digging in the dirt and are interested in teaching others about composting, then the **Master Composter program** is for you! You will become part of an elite group of volunteers that uses the information learned in this training program to teach others how to turn their organic material into a beneficial soil amendment.

This multiple session Master Composter Training Program provides an educational experience in the chemistry and microbiology of composting, types of and reasons for composting, and lessons on teaching audiences.

Expectations of the Program

1. Complete the training course and field trips
2. Complete class project
3. Volunteer a minimum of 40 hours back to the program in the first year

Typical Volunteer Duties

1. Teaching or assisting with compost workshops
2. Staffing composting informational booths at various public education and outreach events
3. Giving lectures and hands-on presentations on composting to various civic, community, and garden groups
4. Building Compost Bins

Georgia Master Composter 2021 Program

Dates

Every Wednesday from
September 15, 2021 to
November 17, 2021

Time

5:30pm to 8:30pm

Location

ACC Solid Waste
Department,
Administration Building
Training Room
725 Hancock Industrial
Way, Athens 30605

Cost

\$150

To Apply

Contact Laura New with
ACC Cooperative Extension
at lney@uga.edu

Application deadline is
August 16, 2021

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UNIVERSITY OF GEORGIA
EXTENSION
Athens-Clarke County



Join Athens-Clarke County 4-H!



Students in 5th - 12th grades in Athens-Clarke County can sign up for 4-H now. The mission of Georgia 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. 4-H meetings will look different this year and are online. There is no charge to be a member or participate in a competition.

To start your 4-H Adventure e-mail the ACC 4-H Agent, Elizabeth Conway, at ebarber@uga.edu today!



Virtual 4-H Programs can be viewed on the ACC 4-H website:

<https://tinyurl.com/acc4hvirtual>

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**HELLO
ATHENS-CLARKE
COUNTY**

**Concerned about the
state of your garden?**

**Are weeds taking over
your landscape?**

**No need to fear,
Clarke is here!**

Follow @gardenwithclarke on Instagram  and learn how to battle pests, identify weeds, build your soil and so much more as you garden alongside Clarke, Athens-Clarke County's super gardener!




gardenwithclarke


UGA Extension Athens-Clarke County



**SOMETHING IS
EATING OUR WHEAT..**



**AHA! I FOUND
THE CULPRIT**



**LOOKS LIKE WE'VE
GOT FALL ARMYWORMS**

Helpful resources online:

[Find My Local
Extension Office](#)

[Bugwood— Pest
Images](#)

[Landscape Alerts
Online](#)

[Pest Management
Handbook](#)

[Georgia Turf](#)

[Free Online
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Athens-Clarke County Extension Agriculture and Natural Resources

Mission Statement

The UGA Athens-Clarke County Extension's mission is to respond to the people's needs and interest in Agriculture, the Environment, Families, and 4-H/youth in Athens-Clarke County with unbiased, research-based education and information.

Visit us online:



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