

## Centipedegrass Yearly Maintenance Program

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Centipedegrass (*Eremochloa ophiuroides*) is a slow-growing, apple-green colored, coarse-leaved turfgrass that is adapted for use as a low maintenance, general purpose turf. It requires little fertilizer, infrequent mowing, and will tolerate moderate shade. However, in order for centipedegrass to grow well, it needs at least 6 hours of full sun. It does not tolerate traffic, compaction, high phosphorus soils, high soil pH, low-potassium soils, excessive thatch, drought, or heavy shade. See [HGIC 1209, Centipedegrass](#) for additional information on care and cultivar selection.



Centipedegrass is a slow-growing, apple-green colored, coarse-leaved, low maintenance turfgrass.  
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Producing a yearly maintenance calendar for managing turfgrass consistently year after year can be difficult in a state with such a diverse climate as South Carolina. Because of this, it is important to monitor temperatures and apply the needed management practices based on that year's climate. Important times to monitor the weather are during late winter or early spring when the turf is coming out of dormancy and early fall when the first frost is forecasted. Last frost dates and first frost dates can vary by several weeks to a month from coastal areas of South Carolina to the foothills of the Upstate.

This turfgrass maintenance calendar may be used on turf grown throughout the state; however, management practices may need to be adjusted based on the year's climate and the region where the turf is grown.

### January through April

**Mowing:** Mow the lawn slightly lower than the regular summer mowing height. The mower setting should be around 1-inch high. Be careful not to set the mower too low, as it might scalp the lawn. This height reduction should be done just before the time of lawn green-up, which usually occurs during late April or early May. If possible, use a mower with a bagger to collect the clippings and remove any dead material left from

winter dormancy. Be sure to use a sharpened mower blade. Alternatively, the lawn can be hand raked to remove the excessive dead leaf material from the lawn surface.

A sharp mower blade will cleanly cut the grass blades as opposed to tearing the leaves. Dull mower blades rip rather than cut the grass and make the grass more susceptible to diseases. Sharpen the mower blade annually or as needed.

The date of initial turf green-up can be quite variable. In the coastal and more Southern regions of South Carolina, this generally will occur sometime during April, but further inland, this may be as late as mid-May. It is not unusual for centipedegrass to green up and be burnt back several times during the late winter or early spring due to late season frosts. Because of possible injury to the lawn and the potential fire hazard, do not burn off centipedegrass to remove excessive debris. For more information on mowing, refer to [HGIC 1205, \*Mowing Lawns\*](#).

**Thatch Removal:** If a thatch layer becomes a problem, use a dethatcher or vertical mower to remove it. Consider dethatching centipedegrass when the thatch layer is greater than ¼ inch. For best results, use a dethatcher with a 2- or 3-inch blade spacing set a ¼-inch depth. Do not use a power rake with a 1-inch blade spacing, as severe turf injury may result. Use a lawn mower with a bag attached or hand rake to collect and properly dispose the turf material pulled up. For more information on thatch removal, see [HGIC 2360, \*Controlling Thatch in Lawns\*](#).

**Aerification:** Core aeration is the process of punching small holes in the turf and into the soil to alleviate compaction, thus allowing air to get to the root system. This will help to correct

problems associated with poor infiltration and drainage. Once the threat for frost has passed and the lawn has fully greened-up, lawn aerification may be combined with dethatching to alleviate any soil compaction problems.

However, if a pre-emergent herbicide was applied during late February to mid-March, postpone any cultivation practices that will disturb the soil until just before the next pre-emergent herbicide application date. Pre-emergent herbicides will create a barrier that keeps weed seeds from germinating. Disturbing the soil after an application will allow weeds to emerge through this barrier. For more information on aerification, refer to [HGIC 1200, \*Aerating Lawns\*](#) and [HGIC 1226, \*Turfgrass Cultivation\*](#).

**Weed Control:** To control crabgrass, goosegrass, sandspurs, and other summer annual weeds, apply a pre-emergent herbicide early in the year. Approximate application times are mid-February in the coastal and central areas and mid-March in the piedmont/mountain areas. A second application is needed approximately 8 to 10 weeks after the initial application to give season long control of annual grassy and broadleaf, warm-season weeds.

Apply selective post-emergent herbicides as needed to control existing winter grassy and broadleaf weeds. In general, do not apply post-emergent herbicides during the spring green up of the turf. If a weed problem begins and the grass has begun to green with warmer temperatures, wait until the grass has fully greened before applying a post-emergent herbicide. In the meantime, mow and bag the weeds. Centipedegrass is sensitive to certain herbicides, such as 2,4-D, not only during spring green up, but during hot summer temperatures. Follow label directions for use of any

herbicide and use with caution during these times. For more information on weed control, please see [HGIC 2310, \*Managing Weeds in Warm-Season Lawns\*](#).

**Insect Control:** Cold winter temperatures will usually help keep insect problems at bay. As temperatures start to warm in late spring, monitor for mole cricket activity. If mole cricket activity is observed, apply a lawn insecticide if damage is excessive. If the damage is minimal, wait before applying an insecticide. This is not the best time to apply an insecticide for insect control because of cool soil temperatures and reduced insect activity. However, an early spring warm-up can lead to significant mole cricket activity. Heavy populations can be reduced through appropriately timed insecticide treatments during this period. For more information on mole cricket, see [HGIC 2155, \*Mole Cricket Management in Turfgrass\*](#).

If grubs (the white larvae of beetles, such as Japanese beetles) have been a problem in previous years, monitor for grubs by cutting a square foot piece of sod on three sides and peel it back. If more than six grubs are found under the sod piece, apply a lawn insecticide labelled for grub control according to label directions. For more information on white grub management, see [HGIC 2156, \*White Grub Management in Turfgrass\*](#).

**Fertilization:** Fertilization of centipedegrass should be based on soil test results, and this is a good time to test soil. However, fertilizers containing nitrogen should not be applied during this period. If new turfgrass growth is encouraged by fertilization during the early spring, and it is followed by a late frost, this can result in significant

damage to the lawn. See [HGIC 1652, \*Soil Testing\*](#) for instructions on how to properly do a soil test.

**Irrigation:** During dormancy, water the lawn to prevent excessive dehydration. Winter desiccation can be a problem during dry winters. Watering to prevent drought stress can help eliminate turf loss during winter.

Most areas of South Carolina receive enough rainfall during the winter to avoid winter desiccation of lawns. However, this is not always the case. Monitor the winter rainfall on a regular basis and apply water to the turf if no measurable rain occurs over a 3 to 4 week period. This is especially important if warm, bright days precede days forecasted to be in the low 20's or colder. The added moisture in the soil will help keep the growing points of the turf warmer, preventing crown death.

To manage a lawn, it is important to know the soil texture in the top foot of soil. Sandy soils do not hold moisture well since they drain freely and dry out quicker. Clay soils, however, will hold moisture for a longer period of time. Do not allow the lawn to stay excessively wet if the lawn has a clay soil. If the soil stays saturated all winter, this can cause many other problems. A soil probe can be used to monitor the soil moisture. For more information, refer to [HGIC 1207, \*Watering Lawns\*](#) and [HGIC 1225, \*Conserving Turfgrass Irrigation\*](#).

## **May Through August**

**Mowing:** The ideal mowing height for centipedegrass is from 1 to 2 inches, depending on the specific site and management regime and is best determined by the conditions in the lawn. Lawns in partial shade are better mowed at 2 inches high.

Start the season by mowing the lawn at a height of 2 inches based on a bench mark setting. This is the measured distance from the mower blade to a hard surface and can easily be determined by using a small ruler. Over the next several mowings, gradually reduce the mowing height in as small an increment as possible. Monitor the lawn after each mowing. Once a height is reached where the grass does not look good anymore, it looks too thin or scalped, raise the mowing height back to the previous setting.

During periods of environmental stress due to high temperatures or a lack of rainfall, raise the mowing height  $\frac{1}{2}$  to 1 inch until the stress is eliminated. Always mow with a sharp blade using a mulching type mower, which leaves the clippings to decompose on the turf. The mower blade needs to be sharpened on a regular basis - usually about once a month or at least before the growing season starts. If the bag is picking up soil, especially sand, when the lawn is mowed, then the blade may need to be sharpened more often than once a month.

**Fertilization:** Always fertilize and add lime or sulfur based on a soil test. Centipedegrass will grow best at a pH of 5.5 to 6.0. Many soils along the coastal plains and into the midlands of South Carolina have soil a pH higher than what centipedegrass prefers. If a soil test shows a higher pH, sulfur can be applied to lower it. Apply 5 pounds of pelletized sulfur per 1000 square feet of turf. Apply sulfur only when the air temperatures are below 75 °F. In 3 months, recheck the soil pH to see what change was made. It may take several years for a large pH change to occur. Soils in the Upstate are typically acidic and usually do not need sulfur.

Established centipedegrass should not receive phosphorus fertilizer unless a soil test indicates that it is deficient. Centipede lawns should receive 1 to 2 pounds of actual nitrogen per year per 1000 square feet of turf. The higher rate may be chosen for centipedegrass lawns on sandy soils and the lower rate for lawns growing on clay soils. Applying more than 2 pounds of nitrogen per 1000 square feet per year may be harmful to the centipede turf by creating excessive thatch and increasing the chance of turfgrass disease.

*Early Summer:* Apply  $\frac{1}{2}$  to 1 pound of actual nitrogen per 1,000 square feet in early May after the lawn fully greens up. The rate will depend on soil type. A soil test will help determine if a fertilizer containing phosphorous is required for best growth of the turf. See the section on fertilizer calculations below to determine how much granular fertilizer needs to be applied.

*Late Summer:* Fertilize with  $\frac{1}{2}$  to 1 pound of actual nitrogen per 1,000 square feet depending on the soil type using a high potassium fertilizer, such as 15-0-15. Make this last fertilizer application before August 15 in the Upstate and before September 1 along the coast. Potassium is needed late in the growing season as the grass goes into dormancy for added disease protection and winter hardiness.

*Nutrient Deficiencies:* A yellow appearance during the growing season may indicate an iron deficiency due to excessive phosphorus and/or a high soil pH. A long-term approach is needed to correct either cause, but iron can be added to quickly enhance turf color between the spring and summer fertilizer applications.

NOTE: A yellow appearance may also arise in early spring. This could indicate an iron or manganese deficiency due to soil temperatures lagging behind air temperatures, high pH soils, or high phosphorous levels. Spraying with liquid iron (ferrous sulfate) at 2 ounces in 3 to 5 gallons of water per 1,000 square feet or applying a chelated iron product will help to enhance turf color. Fertilizing with a micronutrient fertilizer, such as manganese sulfate, can help alleviate manganese deficiencies. However, as the soil temperatures start to climb, the yellowing should slowly go away. Lime or sulfur may also be added if a soil test indicates a need. Be aware, it could take several months for lime and sulfur applications to begin to affect the soil pH.

*Fertilizer Calculations:* To determine the amount of granular fertilizer needed to apply ½ pound of actual nitrogen per 1,000 square feet, divide 50 by the first number on the fertilizer bag. To determine the amount of product required to apply 1 pound of actual nitrogen per 1,000 square feet, divide 100 by the first number on the fertilizer bag. This will give the number of pounds of product to apply to 1000 square feet of turf. See [HGIC 1201, Fertilizing Lawns](#) for more information.

**Irrigation:** Water to prevent drought stress. Monitor the lawn on a regular basis to assess the need for irrigation. When the entire lawn appears dry, apply ¾ to 1 inch of water the next morning. Wait to irrigate again when the lawn shows moisture stress. There are several ways to determine when the lawn needs watering. One way is to monitor the lawn daily. When the turf begins to dry, it will appear to have a bluish color. Another method is to walk across the lawn late in the evening. If the grass blades in the footprints rebound, there is plenty of

moisture in the turf. If the grass in the footprints do not rebound, then water the next morning.

The irrigation interval will vary from site to site depending on the environmental conditions at that site and soil type. The general rule for turfgrass irrigation is to water “deeply and infrequently”.

Localized dry spots or hot spots can be watered by hand as needed. For more information on turfgrass watering, see [HGIC 1225, Conservative Turfgrass Irrigation](#).

**Insect Control:** There are various insects that may attack centipedegrass during the summer months. Mole crickets, spittlebugs, grubs, ground pearls, as well as nematodes, can cause considerable damage. Each pest problem has its own management strategy and is usually handled with cultural and chemical controls. However, there can be exceptions. Mole cricket and grub eggs will usually hatch mid-summer. An insecticide application targeted at the smaller nymphs is the most effective control even if damage has not yet occurred. If either of these insects was a problem early in the season, apply an insecticide in mid-July to control the younger immature insects.

If an insect problem occurs, it is important to positively identify the problem and select the appropriate insecticide to apply. Contact the local County Extension Office or the Home & Garden Information Center for positive identification and proper management strategies. See fact sheets [HGIC 2156, Whitegrub Management in Turfgrass](#), [HGIC 2155, Mole Cricket Management in Turfgrass](#), and [HGIC 2488, Two-lined Spittlebug](#).



**Disease Control:** The most common disease that affects centipedegrass during the growing season is large patch, formerly known as brown patch. Large patch is a fungal disease that is active during warm, humid spring and fall weather. Since it is fueled by moisture, it is important to use proper watering practices, as well as provide adequate drainage.

If the turf does stay wet, circular yellow to brown areas may start to develop and slowly grow in size. Later, the center of the circle may start to re-green. In heavily infested turf, the rings may grow together and no longer appear circular. If the turf at the edge of the dying area shows a smoky brown, rotted appearance, it will be necessary to apply a fungicide treatment. Overall, proper water management and thatch control are essential to curtail large patch problems. Additionally, fertilize the centipede lawn according to recent soil test recommendations. For more information, see [HGIC 2150, \*Brown Patch & Large Patch Diseases of Lawns\*](#).

**Weed Control:** A selective, annual grass or broadleaf weed control pre-emergent herbicide that is labeled for use on centipedegrass and applied during late winter and spring will reduce many weeds the following summer. If a pre-emergent herbicide was not applied in the spring, the resulting weeds will need to be controlled using post-emergent herbicides.

Use a product containing the active ingredient sethoxydim to control annual grassy weeds, such as crabgrass, goosegrass, and sandspurs. Sedges, or nut grass, are controlled by using a product containing the active ingredient imazaquin. Broadleaf summer weeds, such as spurge and annual lespedeza are controlled by using a broadleaf weed

herbicide, which is sometimes referred to as a 3-way mix and contains 2,4-D, dicamba, and mecoprop. Centipedegrass is sensitive to certain herbicides, such as 2,4-D, so follow label directions and use with caution. Always apply herbicides to turfgrass and weeds that are actively growing and are not suffering from drought or heat stress. Do not apply herbicides unless turfgrass and weeds are actively growing and are not suffering from drought or heat stress. Do not apply herbicides to the lawn if the temperature is over 90 °F. Use herbicides with caution while the turf is emerging from winter dormancy as well. Do not mow the lawn 3 days prior or 2 days after application. As with all pest control, proper weed identification is essential. Contact the local County Extension Office or the Home & Garden Information Center for identification and control of weeds in the lawn. For more information on weed control, see [HGIC 2310, \*Managing Weeds in Warm Season Lawns\*](#).

**Renovation:** Replant large bare areas in May using sod, seed ( $\frac{1}{4}$  to  $\frac{1}{2}$  pound per 1,000 square feet) or sprigs (5 bushels per 1,000 square feet). Mixing seed with 2 gallons of fine sand per 1,000 square feet will aid in distribution. Germination is expected in 28 days and establishment is slow. To ensure good germination, keep the seedbed moist with light, frequent sprinklings several times a day. It is not uncommon for it to take three years for a new lawn from seed to become uniform and dense. For more information, refer to [HGIC 1204, \*Lawn Renovation\*](#).

### **September through December**

**Mowing:** Continue to mow the centipedegrass lawn at the normal mowing height until the weather starts to cool in the fall. Once nighttime temperatures fall below 70 °F, raise the

mower blade height to approximately 2 inches to allow for more leaf surface. This will allow the turf to become acclimated by the time the first frost occurs.

**Fertilization:** Do not apply nitrogen at this time. Lime or sulfur may be added if recommended by a recent soil test. Potassium, commonly known as potash, may be applied to enhance winter hardiness if a recent soil test indicates insufficient levels of potassium. Apply 1 pound of potash (K<sub>2</sub>O) per 1,000 square feet 4 to 6 weeks before the first expected frost by using 1.6 pounds of muriate of potash (0-0-60) or 2 pounds of potassium sulfate (0-0-50) per 1000 square feet.

**Irrigation:** In the absence of rainfall, continue to water the lawn to prevent drought stress. After the lawn has become dormant, water as needed to prevent excessive dehydration. This is especially important if warm, bright days precede days forecasted to be in the low 20's or lower.

**Insect Control:** Any insects that were missed during the nymphal stage in the summer will have grown to a size where damage is occurring. Apply an insecticide to reduce the population and reduce further turf damage. This is best done before the first frost.

**Disease Control:** For disease control, especially large patch, it is extremely important to treat with fungicides during the fall months. With warm temperatures through September and the possibility of excessive rainfall that may occur during that period, diseases can spread rapidly.

However, with cooler nights and shorter day lengths, control can be quite difficult because of slow turf recovery during this time. Turf weakened by disease in fall will be slow to recover in the spring; therefore, fungicide applications are needed to control disease before the grass goes dormant. In certain situations where large patch has been prevalent yearly, preventative fungicide applications may be needed starting in early October to stay ahead of the disease. For more information on disease control, please see [HGIC 2150, Brown Patch & Large Patch Diseases of Lawns](#).

**Weed Control:** Many winter annual grassy and broadleaf weeds can be managed by applying a pre-emergent herbicide in September with a second application 8 to 10 weeks later. Follow all label directions on the product for application rate. Granular herbicides must be watered into the soil soon after application. Follow label directions as to post application watering.

Selective, post-emergent herbicides can be applied as necessary for control of chickweed, henbit, and other cool-season broadleaf weeds. Centipede grass is sensitive to certain herbicides, such as 2,4-D, so follow label directions for reduced rates and use with caution. Spray sufficiently to wet the foliage, but do not spray excessively. Repeat application in 10 to 14 days, if needed. Selected herbicides can also be applied in the winter for control of annual bluegrass and other winter annual grassy weeds. Contact the local County Extension office or the Home & Garden Information Center for weed identification and control measures.

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