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## TURFGRASS MANAGEMENT

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# Centipede Lawns

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**Centipede** (*Eremochloa ophiuroides*) is a warm season turfgrass very popular on residential lawns in the southern United States. Guam's tropical climate is ideal for its tolerance to low soil fertility which results in slower growth and less frequent mowing than other lawn grasses. The most popular centipede is a common type that can be established from seeds. Centipede is a creeping grass (above ground runners or stolons) that has leaves wider than most bermudagrasses or zoysiagrasses. It grows well in full sun and is more shade tolerant than bermuda (does not tolerate heavy shade under big trees). It is not recommended on driveways and other areas subject to heavy traffic. Centipede has a natural light green color. High fertilization (especially nitrogen) makes the color darker but results in numerous problems ranging from low stress tolerance to reduced resistance for weeds, insects and especially fungal diseases. On the acidic soils (red clay in southern Guam) centipede may require little fertilizer and on alkaline soils (coral soil in northern Guam) it should not be fertilized at all.

### ESTABLISHMENT

Centipedegrass can be established by seed, sprigs (runners), plugs or sod. It can be planted any time however it is better to avoid the peak of the rainy season.

### SOIL PREPARATION

Proper soil preparation is essential for successful establishment of a lawn. Grasses and other weeds that are hard to control should be treated with herbicide such as glyphosate (Roundup) before planting. Deep cultivation, by plowing or rototilling six to eight inches, is very important to establishing and maintaining a healthy turf. After leveling the area and collecting rocks bigger than golf balls, you may collect a soil sample to be analyzed by the UOG soil lab for fertilizer recommendation. If you wish to use a general rule of thumb, mix 4-5 lbs of 15-15-15 fertilizer per 1000 sq. ft. into the top 4-6 inches while raking or harrowing the area to smooth the surface before planting.

### SEEDING

Centipede seed is expensive. However, the seeding rate is only 1/4 to 1/2 lb. per 1000 sq. ft. making it cheaper than vegetative planting, especially when time and labor are considered. Spread the seeds evenly using a mechanical spreader. Mixing the seeds with a carrier such as sand at the rate of 1/4 lb. of seeds per gallon of sand is recommended. Divide the mix into two equal parts and spread half in one direction and the other half at the right angle to the first direction. Rake lightly. Seeds should be covered to the depth of 1/4 inch. The area can be rolled with a lightweight roller to assure good seed/soil contact. The seeds must be kept moist, so daily watering is needed for the first three weeks. Germination should occur within two weeks if seeds are kept moist. As the seedlings develop, decrease the watering frequency and increase the amount of water applied until normal practices can be followed. If it rains enough to moisten the surface to 4/6 inches, irrigation is not necessary. Begin mowing to the height of 2 inches when the seedlings reach a height of 2.5-3 inches. Do not mow wet grass. Be sure the mower blades are sharp, and the soil is not soft and wet.

### SPRIGGING & PLUGGING

Planting with sprigs and/or plugs is as good as seeding, but generally requires more time and labor. Runners (stolons) with at least two nodes (joints) can be planted every 4 to 6 inches in rows dug 8 to 12 inches apart (closer spacing will provide quicker cover). After planting sprigs, 1 to 2 inches deep, leaving a portion exposed to light, firm the soil to insure a good soil-plant contact. Sprigs can also be broadcast over the soil and either top-dressed with soil or if proper equipment is available, sliced into the soil. To plug centipede, cut sod 2 to 4 inches in diameter and plant on 6 to 12 inch centers (closer spacing will provide quicker cover). Keep the soil moist, but not soggy, until new growth appears. Begin mowing to a height of 2 inches. Be sure the mower blades are sharp and do not mow when the grass and/or soil is wet.

### Disclaimer

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## CENTIPEDE LAWNS

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### IMPROVING COVERAGE

The rate of centipede coverage from seeding, sprigging or plugging can be increased by proper fertilization. After new growth is seen, apply fertilizer that is low in phosphorus at a rate of 1 lb nitrogen per 1000 sq. ft. This fertilizer application can be repeated every four weeks. Of course, proper mowing and irrigation must be continued during this “grow-in” period. Certain post-emergence herbicides such as atrazine and sethoxydim (Vantage) may be used during the year of establishment to control grass and broadleaf weeds.

### SODDING

Sodding is more expensive but provides an instant lawn. Use quality sod that is free of weeds, diseases and insects. Wet the soil surface thoroughly after preparation. Place the sod tightly together to avoid cracks, water thoroughly and roll to insure good sod/soil contact. Apply about 1/4 inch of water daily until the sod is well rooted into the soil before beginning “normal” watering practices. As yet, sod is not commercially available on Guam.

### MAINTENANCE

**Fertilization** A fertilization program should be based on soil test analyses. As previously mentioned, centipede has a natural light green color and is suited to acid soils (pH 5.0 to 6.0), therefore lime is usually not needed. High rates of fertilizer, especially nitrogen, will produce a dark green color but will also lead to growth problems. One to two pounds of nitrogen per 1000 square feet per year would improve visual quality of centipede although in most situations it will grow well without any fertilizer. The exception is very sandy soil where 2 lbs of nitrogen may be preferable. If you decide to fertilize, it is recommended to test your soil and to use the soil test recommendations. If you can not test your soil apply fertilizer 2-3 times a year using a general purpose fertilizer with a 3:1:2 nitrogen-phosphorus-potassium ratio. The fertilizer should be applied evenly over the area when the grass leaves are dry. Use a mechanical spreader and use a two direction application procedure as described for seeding. Remember, avoid excessive fertilization.

**Mowing** Proper mowing is also very important to maintaining healthy, attractive turf. Centipede should be mowed at 2-2.5 inches. Use a rotary mower with sharp blades and mow often enough so that no more than one-third of the plant height is removed. High and infrequent mowing tends to encourage thatch development, which can lead to yellowing, drought stress and diseases. However, during periods of moisture stress or in shaded areas, the mowing height should be raised to 3 inches.

**Irrigation** Irrigation during periods of moisture stress will keep centipede healthy. Water when the grass shows signs of moisture stress such as rolling leaves, gray color or wilting. Apply enough water to thoroughly wet the soil to a depth of 6 to 8 inches. Early morning is the best time to water since evening watering can encourage disease development.

**Thatch** Thatch is a layer of dead plant material, which accumulates on the soil surface. Centipede is susceptible to thatch buildup because its stolons (runners) are very resistant to decomposition, abundant and often grow on the top of each other. When fertilized extensively, rapid stolon growth leads to the development of a soft and spongy layer which makes mowing difficult and promotes development of diseases and insects. Thatch control is not easy and often requires special machines. The key is to discourage thatch development by avoiding excessive fertilization.

**Pest Problems** A dense, healthy turf obtained through proper fertilization, mowing and watering is the best defense against pest problems. However, when problems arise from unwanted weeds, insects or diseases, good control is dependent upon proper pest identification and treatment. Contact UOG Cooperative Extension Service for help.

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