

Turfgrass Selection Centipedegrass

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Centipedegrass [*Eremochloa ophiuroides* (Munro) Hack] is light-green, medium coarse-textured and requires little nitrogen fertilization. This warm-season turfgrass is

native to southern China and parts of Southeast Asia. Plants spread slowly by short, thick, centipede-like stolons from which the species gets its name. The relatively low maintenance requirement of centipedegrass contributes to its popularity in the Southeast. However, the limited low-temperature hardiness of 'Common' centipedegrass has restricted its use in Tennessee and the northern turfgrass transition zone. The leaf width and stem diameter of mature plants are usually greater than bermudagrass and less than St. Augustinegrass. Roots of centipedegrass are somewhat shallow compared to many other turfgrasses. Centipedegrass tolerates drought but has only fair shade tolerance, ranking below St. Augustinegrass and above bermudagrass. The species is also susceptible to nematodes and does not grow well in alkaline soils. Due, in part, to its slow vertical growth rate and limited tolerance of heavy foot traffic, centipedegrass is not usually recommended as sports turf. A condition known as "centipedegrass decline" can be a problem if centipedegrass turfs are mowed too closely, over-fertilized and drought-stressed. Centipedegrass decline appears in the spring as large brown patches of dead plants.

Varieties

The stem color of Common centipedegrass may be green, red or yellow, with red-stemmed strains usually being more tolerant of low temperature. 'Chinese Red Stem' (PI72260) was the first commercially available strain produced in the United States. Packages of Common centipedegrass seed marketed in Tennessee usually contain a mixture of red- and yellow-stemmed strains. 'AU Centennial,' 'Oklawn,' 'TennTurf' and 'TifBlair' are improved varieties. Presently, TifBlair is the only variety marketed as sod in Tennessee. TifBlair centipedegrass was developed by the USDA-ARS Forage and Turf Research Unit at Tifton, GA from irradiated seeds of Common centipedegrass planted at Blairesville, GA. Seeds were harvested from plants that survived the 1980 to 1984 winters to produce TifBlair. TifBlair can be established from seeds or sod.

Interestingly, although not produced in Tennessee, the varieties TennTurf, released by the University of Tennessee Agricultural Experiment Station in 1997, and AU Centennial, released by the Alabama Experiment Station in 1983, are being evaluated for adaptation in Hiroshima, Japan. Dr. Wayne Hanna, the University of Georgia, continues to develop improved centipedegrass varieties at the Coastal Plains Experiment Station in Tifton, GA. Presently, several of these experimental varieties are being evaluated for general adaptation and cold tolerance here at the University of Tennessee.



TifBlair Centipedegrass

Descriptions of several varieties of centipedegrass.

Variety (Experimental Designation)	Release Information - Description
AU Centennial, Centennial (AC-17)	1983, Alabama AES, Auburn University – Vegetative increase of a single plant selected from a mutation resulting from the irradiation of Common centipedegrass seeds; dwarf, vegetatively propagated cultivar with improved color, density and low-temperature tolerance; and more tolerant of alkaline soils than either Common or Oklawn.
Oklawn	1965, AES, Oklahoma State University – Selected from a vegetative planting to control soil erosion in Stillwater, OK. Bluish-green, medium-textured and slow-growing; persistent under adverse environmental conditions; tolerant of heat, drought, insects and disease; adapted in full sun and partial shade; although the variety produces viable seed, turfs are usually established from plugs, sprigs or sod.
TennTurf (A-84 and CV-194)	1997, AES, the University of Tennessee – Very cold-hardy, light-green variety that traces to a single sprig collected in 1958 from a lawn in Chattanooga seeded in 1955; well-suited to poor soils, low soil pH (4.5 to 5.5) and low N (1 lb. N / 1,000 sq. ft. / yr.) fertility level; produces viable seed; however, only stolons, plugs and sod are available for vegetative plantings; disease and insect resistance comparable to AU Centennial; and particularly advantageous for use in the upper South and at higher elevations.
TifBlair	1997, USDA-ARS Forage and Turf Research Unit, Tifton, Georgia and the University of Georgia – Selected from irradiated seeds of Common centipedegrass planted in Blairsville, GA; has improved low-temperature hardiness, fall color retention and frost tolerance; superior growth in acidic soils is related to aluminum tolerance and the ability to develop a deep root system in poor soils; and can be established vegetatively or from seed.

References

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Hanson, A. A. 1972. Grass Varieties in the United States, Agricultural Research Service, U.S.D.A., Agriculture Handbook Number 170, Washington, D. C.

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