Turfgrass Establishment

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Some turfgrasses grow best during warm weather, while others become heat-stressed. Some are established from seed; others produce no viable seed. Sterile, hybrid turfgrasses are often established from sod, plugs or harvested segments of stolons or rhizomes referred to as sprigs. Site preparation, timing and the care provided after planting usually determine if turfgrasses survive.

Bluegrasses (Poa spp.), fescues (Festuca spp.) and ryegrasses (Lolium spp.) grow best from 60 to 75 degrees Fahrenheit. In Tennessee, late August to mid-October is considered an ideal time to seed these cool-season turfgrasses. Although late summer and early fall plantings are preferred, and wet, rainy weather may make soil preparation difficult, fescues and ryegrasses are sometimes seeded in late winter or early spring. Kentucky bluegrass should not be seeded in spring.

Kentucky bluegrass seeds germinate very slowly compared to fescues and ryegrasses, and poorly developed seedlings are usually killed by hot, dry weather in summer. Tall fescue and Kentucky bluegrass sod is most often installed from January through June and September through December. Many sod producers do not like to market sod of cool-season turfgrasses in July and August, when plants are prone to high-temperature stress and disease.

Temperatures from 80 to 95 degrees Fahrenheit favor the growth of bermudagrass (Cynodon spp.), centipedegrass (Eremochloa ophiuroides (Munroe.) Hack.), St. Augustinegrass (Stenotaphrum secundatum (Walt.) Kuntze.) and Zoysia (Zoysia spp.). In Tennessee, seeds, plugs or sprigs of these warm-season turfgrasses should be planted between May 1 and June 30. Sod of warm-season turfgrasses is installed throughout the year, as long as the planting bed is not frozen. However, if turfgrasses are dormant at planting, several weeks or months may be required before the newly sodded turf can withstand traffic.
Common planting methods and timing for establishing several turfgrass species in Tennessee.

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<th>Species</th>
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<th>Timing</th>
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| Bluegrass, hybrid  
*Poa pratensis* L. × *Poa arachifera* Torr. | sod, seed | late summer – early fall |
| Bluegrass, Kentucky  
*Poa pratensis* L. | seed | late summer – early fall |
| Bluegrass, rough  
*Poa trivialis* L. | seed | late summer – early fall |
| Fescue, chewings  
*Festuca rubra* L. ssp. *falax* Thuill., *Festuca rubra* var. *commutata* Gaud. | seed | late summer – early fall, late winter – early spring |
| Fescue, hard  
*Festuca longifolia* auct. non Thuill. | seed | late summer – early fall, late winter – early spring |
| Fescue, sheep  
*Festuca ovina* L. | seed | late summer – early fall, late winter – early spring |
| Fescue, slender creeping red  
*Festuca rubra* L. ssp. *trichophylla*, *Festuca rubra* var. *littoralis* Vasey | seed | late summer – early fall, late winter – early spring |
| Fescue, strong creeping red  
*Festuca rubra* L. *rubra* | seed | late summer – early fall, late winter – early spring |
| Fescue, tall  
*Festuca arundinacea* Schreb. | sod, seed | late summer – early fall, late winter – early spring |
| Ryegrass, annual (Italian)  
*Lolium multiflorum* Lam. | seed | late summer – early fall, late winter – early spring |
| Ryegrass, intermediate  
*Lolium hybridum*, hybrid of *Lolium multiflorum* Lam. + *Lolium perenne* L. | seed | late summer – early fall, late winter – early spring |
| Ryegrass, perennial (English)  
*Lolium perenne* L. | seed | late summer – early fall, late winter – early spring |
### Warm-season

| **Bermudagrass**  
  *Cynodon spp.* | sod, plugs, sprigs, seed | late spring – early summer |
|------------------|--------------------------|---------------------------|
| **Common or Improved Common Bermudagrass**  
  *Cynodon dactylon (L.) Pers.* | sod, plugs, sprigs, seed | late spring – early summer |
| **Hybrid Bermudagrass**  
  *Cynodon dactylon (L.) Pers. x Cynodon transvaalensis Davy.* | sod, plugs, sprigs | late spring – early summer |
| **Centipedegrass**  
  *Eremochloa ophiuroides* (Munro.) Hack. | sod, plugs, sprigs, seed | late spring – early summer |
| **St. Augustinegrass**  
  *Stenotaphrum secundatum* (Walt.) Kuntze. | sod, plugs, sprigs | late spring – early summer |
| **Zoysia**  
  *Zoysia spp.* | sod, plugs, sprigs, seed | late spring – early summer |
| **Chinese, Japanese or Korean Common Lawngrass**  
  *Zoysia japonica* Steud. | sod, plugs, sprigs, seed | late spring – early summer |
| **Manilagrass**  
  *Zoysia matrella* (L.) Merr. | sod, plugs, sprigs | late spring – early summer |
| **Mascarenegrass, Korean velvetgrass**  
  *Zoysia tenuifolia* Thiele,  
  *Zoysia pacifica*  
  (Goudsward) Hotta & Kuroki | sod, plugs, sprigs | late spring – early summer |
| **Hybrid**  
  *Zoysia japonica* Steud. x *Zoysia tenuifolia* Thiele,  
  *Zoysia japonica* Steud. x [*Zoysia matrella* (L.) Merr. x *Zoysia tenuifolia* Thiele] | sod, plugs, sprigs | late spring – early summer |

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*a* To avoid transplanting turfs during high-temperature stress, sod of cool-season turfgrasses is usually installed from January through June and September through December.  

*b* Sod of warm-season turfgrasses can be installed all year long as long as the planting bed is not frozen.  

*c* The species *Zoysia tenuifolia* appears to have been misidentified and is now identified as *Zoysia pacifica*.

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