

# Turfgrass Establishment Sprigging

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Sod-forming turfgrasses can be established from sprigs. A sprig is a section of stem with crowns and roots that is cut from a rhizome or

stolon. When properly harvested, transplanted and maintained, a sprig is capable of producing a plant.

Sod can be cut or pulled apart to provide sprigs for planting. Sprigs are also mechanically harvested and sold by the bushel. Through the years, two



different bushel measurements have evolved. In the Southeastern U.S., sprigs are usually sold by the Georgia (GA) bushel. A GA bushel, sometimes referred to as an industry

standard bushel (ISB), provides a volume of sprigs at harvest equal to 0.4 cubic foot. One square yard of hybrid bermudagrass sod usually produces one GA bushel of sprigs. A Texas (TX) bushel is based on the U. S. customary measurement system where one bushel of harvested sprigs is 2150 cubic inches or 1.24 cubic feet in volume, about three times greater than a GA bushel. In the western U.S., sprigs are sometimes sold by the TX bushel.

Sprigging is vegetative planting by placing sprigs at spaced intervals in furrows or holes. Sprigs are often placed 2 or more inches apart in furrows that are 1 to 2 inches deep. Commercial row planters usually plant sprigs in furrows 4 or 6 inches apart, then firm soil around each sprig. The narrower the spacing between sprigs in the furrow and between furrows, the greater the planting rate.

Usually, two to 10 or more bushels (GA) of sprigs are planted per 1,000 square feet. Sprigs planted by hand should be tamped or rolled immediately after planting. Rolling may also be very beneficial after sprigging with a commercial sprig planter. Ideally, about one-third of the sprig should remain above the soil surface after planting. In Tennessee, bermudagrass and *Zoysia* sprigs are

usually planted from late-April to mid-July. Sprigging too late in the growing season may result in poor overall ground coverage and an



erosion-prone turf that is very susceptible to winter-kill. Once harvested, sprigs are very perishable. Air temperatures build as sprigs are loaded and transported from the production field to the installation site. Ideally, sprigs should be installed and irrigated within 24 hours of harvest. Planting sprigs late in the winter dormancy period can be successful if the soil is not frozen and the sprigs do not dehydrate as they resume growth. A late spring freeze can injure poorly rooted, actively growing bermudagrass and *Zoysia* plants.

## Stolonizing

Stolonizing is essentially broadcast sprigging using stolons. The harvested planting material is uniformly broadcast mechanically or by hand, much like straw mulch. Stolons are then covered with 1/8 to 1/4

inch (0.3875 to 0.775 yard per 1,000 square feet) of soil or pressed into the surface of the planting bed using a cultipacker, stolon disc, roller or rototiller.

Planting rates generally range from five to 20 or more bushels (GA) per 1,000 square feet depending on planting date. For example, fewer sprigs are planted when stolonizing hybrid bermudagrass in mid-May [e.g., 10 bushels (GA) per 1,000 square feet] compared to mid-July [e.g., 20 bushels (GA) per 1,000 square feet].



## Hydrosprigging

Hydrosprigging is a variation of the hydroseeding technique where stolons or sprigs are broadcast in water over the planting bed, rather than seeds. Fertilizer, mulch and tackifier can be added with the vegetative material before the slurry is applied under pressure to the soil surface. Pumps can push the sprig-containing slurry as far as 1,000

feet through a 1½-inch hose. This vegetative planting method is especially effective when establishing turfs on slopes and in diversion channels where only minimal soil surface disturbance is permissible.



## Care After Planting

**Water.** Actively growing turfgrasses usually contain at least 70 percent water. Sprigs are often stressed by high temperatures during transport and are very prone to dehydration. Irrigate newly planted sprigs within 30 minutes after planting. Large areas are often planted within individual irrigation zones. One zone can be planted as another is irrigated.

Although algae often develops on the soil surface after planting, an algacide treatment [e.g., chlorothalonil (Daconil®), mancozeb (Fore®)], is seldom necessary as the turf ground coverage increases.



**Fertilization.** Sprigs require routine fertilization. Newly sprigged bermudagrass sports turfs are often fertilized once every seven to 10 days throughout the first growing season. An example fertilization program using quickly available nitrogen sources, phosphorus and potassium to establish a bermudagrass sports turf from sprigs follows:

A.	7 to 10 days after planting:	125 pounds ammonium nitrate per acre
B.	14 to 20 days after planting:	125 pounds ammonium nitrate per acre
C.	21 to 30 days after planting:	125 pounds ammonium nitrate per acre
D.	28 to 40 days after planting:	300 pounds 15-15-15 <sup>a</sup> fertilizer per acre
E.	35 to 50 days after planting:	125 pounds ammonium nitrate per acre
F.	42 to 60 days after planting:	125 pounds ammonium nitrate per acre
G.	49 to 70 days after planting:	125 pounds ammonium nitrate per acre
H.	56 to 80 days after planting:	300 pounds 15-15-15 fertilizer per acre

<sup>a</sup> Ammonium nitrate is applied at a rate supplying approximately 45 pounds of nitrogen per acre. The 15-15-15 fertilizer is applied at a rate to supply approximately 45 pounds each of nitrogen, available phosphate and water-soluble potash per acre. The fertilization sequence is: a total of three applications of ammonium nitrate (applied on a 7- to 10-day interval) for each application of 15-15-15. The final application of 15-15-15 should be broadcast in mid- to late September.

**Mowing.** Hybrid bermudagrass and *Zoysia* turfs are usually maintained at a cutting height from 3/4 to 1½ inches. Stop irrigating long enough to allow the soil surface to dry before mowing. The soil should be moist, not saturated, while mowing. Remove no more than one-third of the leaves each time the turf is mowed and change mowing direction to limit soil compaction and the development of grain.

**Weed Control.** The herbicide oxadiazon (e.g., Ronstar®) is labeled for preemergence control of crabgrasses, goosegrass and foxtails and can be applied alone (e.g., Chipco Ronstar® 50 WSP at a rate of 2 to 3 pounds active ingredient per acre) or on a “starter” fertilizer carrier before or immediately after planting bermudagrass or *Zoysia* sprigs. Oxadiazon formulations are not registered for use on home lawns. An application of oxadiazon at sprigging should reduce the dependence on MSMA applications during turfgrass “grow in” to control emerged crabgrasses and goosegrass.

The herbicide carfentrazone (e.g., QuickSilver®) can be applied to newly sprigged turfgrasses for the control of many annual broadleaf weed species, including dandelion, plantains, purslane and spotted spurge. To expand the weed spectrum, carfentrazone can be tank-mixed with

several other postemergence herbicides. Emerged broadleaf weeds can also be controlled after turfgrass plants are well-established. For example, the herbicide 2,4-D can be applied to established (after the second mowing) bermudagrass and *Zoysia* for the control of dandelion, plantains and purslane. A combination herbicide containing 2,4-D, MCPP and dicamba (e.g., Gordon’s Trimec® Classic Broadleaf Herbicide, Lesco Three-Way® Selective Herbicide) usually controls more broadleaf weed species than 2,4-D alone. For example, a herbicide mixture of 2,4-D, MCPP and dicamba will often control prostrate knotweed, purslane, spurge, white clover and wild onion, five weed species commonly found growing in bermudagrass sports fields throughout the state.

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