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## Turfgrass Portraits VII:

# Bahiagrass

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This is the seventh in a series of nine articles on the basic traits and maintenance procedures for common turfgrasses. Next month author Schery discusses centipedegrass.

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**B**AHIAGRASS, *Paspalum notatum*, is even now in transformation from pasture grass to a valued ornamental. It offers the Deep South, where bahia is basic to most lawn seed blends, an alternative to the traditional hand planting of live starts. The hosts of modern homesteaders there owe mainly to bahia their chance for an inexpensively established lawn, easily maintained. Of course no one claims that bahiagrass, at least as represented by the current varieties, is an outstandingly beautiful lawngrass—it can't touch the fine-textured zoysias and bermudas, for example. But for those who are content with "average" attractiveness, bahia has much to offer for the Atlantic and Gulf coastal plains.

*Paspalum notatum* is native to tropical America, and reportedly was introduced to Texas from Cuba during the Civil War. More recently other bahias have been brought to the United States from South America for pastures. Varietal designations smack of the pampas—"Argentine," "Paraguay,"—while "bahia" itself suggests origin from

the state of that name in Brazil. "Pensacola" bahia was found on a vacant lot in Pensacola, Florida. "Wilmington" comes from naturalized swards near Wilmington, North Carolina. And these are assuredly only beginnings in the development of better bahiagrasses for lawns.

Bahiagrass has among its relatives several "black sheep." Notorious is *Paspalum dilatatum*, the pestiferous dallisgrass, a scourge worse than crabgrass in the South. Nor are "bullgrass" Paspalums, of coarse texture and intemperate habits, much better than weeds. Some disfigure lawns north nearly to Chicago. Common bahia is itself so coarse as to better remain in the pasture than the lawn. Varieties used for lawns are at present primarily the finer leaved "Pensacola," "Paraguay," and "Argentine." Seed of selections chosen especially for turf just isn't available yet, not even "Wilmington." Maybe research will lick the difficulties in seed production, and newer products of the breeders art will eventually grace southern lawns.

This uncertain stage is no cause for wonder when one remembers that production of bahia seed is relatively new. Chan Baker tells us that some of the first seed harvested in Florida was only in 1940, with a bluegrass stripping machine procured in Maryville, Missouri. More recently, combining of the seed, with artificial drying, has permitted more extensive production of field bahias (including ill-defined Pensacolas), from the Carolinas through Georgia and into Florida. Baker reports that he now has acreage in Florida certified as true Pensacola. "Paraguay" bahia does not seed well in the humid Southeast, and is largely produced in Texas.

### Adaptation and Preferences

Bahiagrass is a real southerner, at its best along the mild coastal plain (though fairly tolerant of cold, persisting only erratically into Tennessee). As would be expected, its season of most luxuriant growth is summer, so that spring plantings have best

chance for thorough filling. Seed sown in autumn can overwinter in the soil, a favorable omen for "all-season" seed blends. Even warm weather sowings may prove more attractive from inclusion of the unaggressive northern bents, fine fescues, and bluegrasses, which give temporary color until the typically slower bahia has sprouted fully.

One of bahia's outstanding virtues is immense tolerance. It can stand comparative neglect and little fertility, yet prosper on better soils under higher fertility. Its versatility—and deep vigorous roots—make it one of the best southern grasses for sandy soils that dry quickly and hold nutrients poorly. It withstands drought quite well, yet holds up in moist locations. It is carefree about soil, growing well in both acid and alkaline environments.

### What to Watch Out For

Unlike st. augustine, bahiagrass is relatively unpalatable to the ubiquitous chinch bugs. Nor are other insects of more than average bother, controllable with the usual pesticides. Billbugs are reported on bahia, but not so serious a pest as with thatching zoysia. Nematodes have not been severe. So far bahiagrass has not been greatly afflicted with disease, although it does catch dollar spot and brown patch, controllable with broad-spectrum fungicides. A disease of the seedheads, ergot, sometimes toxic to cattle, is of no consequence in the lawn. So all in all, bahiagrass is a relatively self-sufficient, easy-to-care-for species.

Bahia forms a rather open sod, one not prone to thatch so easily as most lawngrasses. But weed invasion may thus be easier. Higher mowing—at least 2 inches—helps bahia fight competition; very close mowing is an invitation to weeds. The familiar broadleaf weeds can be controlled with the 2,4-D family of chemicals, including silvex for the "toughies," the same as on bluegrass lawns. But bahia cannot stand the methyl arsenates (crabgrass killers). Pre-emergence crabgrass preventers



can be used, though with essentially year-round weed sprouting in the Deep South, preemergence techniques are not so effective as farther north. Simazine and atrazine, used effectively with newly sprigged st. augustine, zoysia, and centipede, should not be employed with bahia.

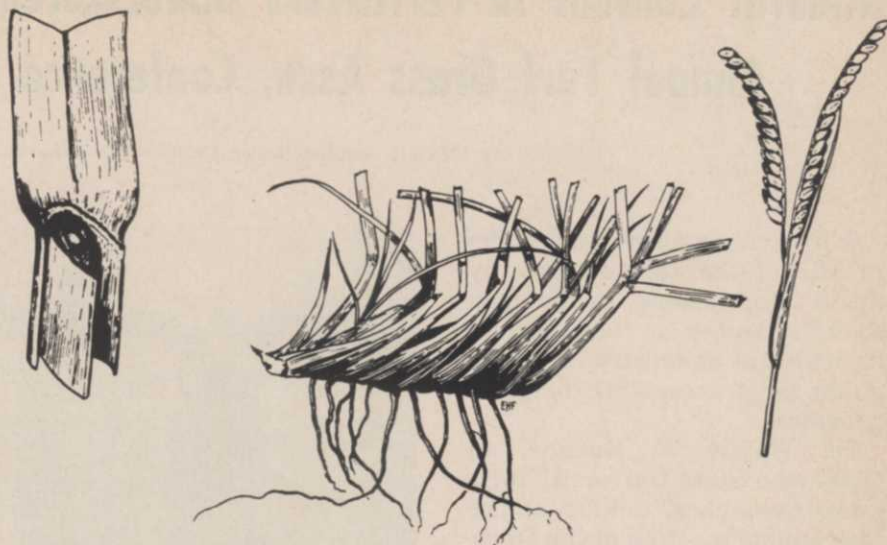
Mowing is typically with a rotary mower to better control the wiry seedheads, especially troublesome in spring, perhaps the chief disadvantage of bahiagrass. For those experimentally minded, a maleic hydrazide spray just ahead of seeding season is said to prevent seedhead formation, reduce need for weekly mowing. Bahia foliage is fairly "stringy," and a dull mower does fray the leaf tips. But compared to the dense tough-to-mow zoysia, mowing bahia is a breeze (permitting use of the less costly mowers).

While bahia persists under low fertility, as with any turfgrass it looks more attractive if fed adequately. The University of Florida suggests a complete fertilizer in March and at least nitrogen-potassium in September, with perhaps an organic feeding or two in summer for the better-tended bahia lawns. Feedings should be at least 1 lb. N/M. Seedhead formation can be reduced by omitting or delaying early spring fertilization.

Bahiagrass is quite tolerant of shade. Indeed, experimentation at Tifton, Georgia, showed bahia shade-tolerance to exceed even that of st. augustine. So it can be planted in tree-studded lawns where bermuda cannot.

#### Growth and Propagation

Like most southern grasses, bahia spreads by horizontal stems (stolons when above-ground, rhizomes when creeping beneath the surface). Thus it can be propagated the same as is st. augustine or zoysia, by plugs or sprigs. But much simpler is the planting by seed. This is the familiar way for newcomers accustomed to seeding the finer lawngrasses such as the Kentucky bluegrasses, fine fescues, and bentgrasses in the North.



Diagrammatic drawing of bahiagrass

Unfortunately, the seed of bahiagrass is more temperamental than is that of bluegrass or fescue. Without special treatment, only a limited percent will sprout quickly, because of a waxy coat that delays moisture penetration. Thus for dense, quick stands, some authorities suggest seeding rates as high as 10 lbs./M. On the other hand, 2 or 3 lbs. will make a pretty good turf in time. Some seedsmen improve germination by cracking the seed coat, which others decry as reducing viability (through injury, or by allowing entree of disease). As inexpensive as seed is to plant, relatively heavy seeding rates would seem feasible, with occasional bolster seedings thereafter to keep bahia turf thick. Southern seed blends may include zoysia, bermuda or centipede, too; and "wintergrasses" such as Kentucky bluegrass, fine fescues, and Highland bentgrass. Such a combination is amenable to seeding at any time of the year.

#### Varieties

The varieties usually available were cited in the opening paragraphs. Other selections are under test. Although experience is scantier with bahia than with many lawngrasses, the summarizations below reflect opinion of several experts across the South, especially in Florida where the

bahiagrasses are perhaps more used than elsewhere.

*Argentine*—a "softer" variety with hairy leaves, more easily mowed, but somewhat coarse. Often liked for lawns in southern Florida. Subject to ergot disease.

*Common*—even coarser than Argentine, not desirable for lawns. May winterkill below 20°.

*P. nicorae*—species on test at University of Florida, no details.

*Paraguay* (Texas)—much like the more widely used Pensacola, but leaves hairy and with a consequent duller sheen. Slow sprouting. Many seedheads.

*Paraguayan 22* (Tifton)—differs from the Texas Paraguay, coarser and more like Argentine.

*Pensacola*—best germinating, work-horse variety, hardy, fine-leaved (for bahia), glossy, reasonably resistant to cold (to 5°) and pests, maintaining winter color better than most varieties.

*Seaside Paspalum* (*P. vaginatum*)—quite fine textured, but must be vegetatively propagated since it scarcely sets seed.

*Tifhi*—a Tifton hybrid of Pensacola, said to be denser and leafier than Pensacola.

*Wilmington*—similar to Pensacola, fine textured, dark green, with fewer seedheads. One of most cold-tolerant varieties. Promising, but unfortunately, does not set seed adequately, so seldom available.