

Turfgrass Selection Ryegrasses

**Tom Samples, Professor and John Sorochan, Associate Professor
Plant Sciences**

Due to rapid seed germination and seedling growth, ryegrasses were once planted as nurse



grasses in seed mixtures with slower-growing, perennial cool-season species including the fescues and Kentucky bluegrass. Unfortunately, ryegrasses can be very aggressive in

mixed stands, and may dominate a preferred turfgrass species by competing for nutrients, sunlight, water and space. Intermediate (*Lolium hybridum*) and perennial (*Lolium perenne* L.) ryegrasses are sometimes used to over-seed dormant bermudagrass. Annual ryegrass (*Lolium multiflorum* Lam.) is widely used to provide temporary ground cover and soil erosion control until a perennial turf can be planted.

Annual Ryegrass

Annual ryegrass, also known as Italian ryegrass, is native to the Mediterranean regions of Africa, Asia and Europe. Plants have a bunch-type growth habit and leaves are usually wider and lighter green than those of perennial ryegrass. The lower surface of each leaf blade is very glossy. Annual ryegrass grows best in fertile, moist soils with a pH from 6.0 to 7.0. The quality, stand density, rooting and uniformity of annual ryegrass are not as good as perennial ryegrass. Annual ryegrass, a prolific seed producer, has poor heat tolerance and is the least cold-hardy of the cool-season turfgrasses.

Varieties

'Florida 80' (1982, Florida AES), 'Gulf' (1958, Texas AES and Plant Research Division ARS), 'Jackson' (1989, Mississippi AFES), 'Marshall' (1980, Mississippi AFES) and 'TAM 90' (1991, Texas AES) continue to be used to temporarily control soil erosion in the South. 'Axcella,' evaluated as ABT-99-3-268 and recently (2001) released by the Texas AES, Overton, Texas, is the first turf-type variety marketed for winter overseeding of bermudagrass turfs. This variety is an early-maturing, dwarf-type and is darker than other annual ryegrasses. Axcella has finer leaves, greater stand density and a slower vertical growth rate than many other annual ryegrasses. Seeds of Axcella annual ryegrass are about 25 percent larger than perennial ryegrass seeds. When overseeded alone or with varieties of intermediate and perennial ryegrasses, Axcella matures quickly and transitions from the stand as bermudagrass resumes growth in spring.

Intermediate Ryegrass

Intermediate or transitional ryegrass is a hybrid of annual and perennial ryegrass. Seeds of intermediate ryegrass may germinate quickly and seedlings may grow faster than perennial ryegrass. Some varieties of intermediate ryegrass are less tolerant of high temperature and drought than perennial ryegrass, and may "transition" or die in response to high temperature stress much earlier in the spring. Other high-temperature-tolerant varieties resemble perennial ryegrass and may persist until mid-summer. 'Froghair,' 'Interim,' 'Midway,' 'TransEze,' 'Transist' and 'Transist 2000' are varieties of intermediate ryegrass.

Perennial Ryegrass



Perennial or English ryegrass, a short-lived bunch grass introduced from Europe, is seldom used as permanent turf in Tennessee. The species generally does not survive high

or low temperature extremes. Although perennial ryegrass tolerates a much lower mowing height than either Kentucky bluegrass or tall fescue, leaves of many varieties are very strong and fibrous, traits that can result in poor mowing quality. Perennial ryegrass, like Kentucky bluegrass, has limited shade tolerance.

Varieties

Presently, more than 200 varieties of perennial ryegrass are marketed in the U.S. These vary in color, texture, disease proneness, fertility requirement, heat and cold tolerance, water use

and recuperative potential. Varieties including 'Calypso,' 'Divine,' 'Excel,' 'Line Drive,' 'Majesty,' 'Monterey,' 'MVF-4-1,' 'Palmer III,' 'Panther,' 'Pennant II,' 'Premier II,' 'Secretariat' and 'Wind Star,' have improved mowing quality. 'Academy,' 'Achiever,' 'Ascend,' 'Assure,' 'Brightstar II,' 'Buccaneer II,' 'Catalina,' 'Chaparral,' 'Esquire,' 'Head Start,' 'KOOS 93-6,' 'Majesty,' 'Mobility,' 'Palmer II,' 'Pennant II,' 'Riviera II,' 'R2,' 'Stallion Supreme,' 'Top Hat,' 'Williamsburg' and 'Wizard' have improved heat tolerance. Achiever, 'Advantage,' 'APR 066,' 'APR 131,' 'Assure,' 'Caddieshack,' 'CAS-LP23,' 'Chaparral,' 'Citation III,' 'Dancer,' 'DSV NA 9401,' 'Edge,' 'Elton,' 'Excel,' 'Express,' 'Goalie,' 'Imagine,' 'Legacy II,' 'Linn,' 'LRF-94-C8,' 'Manhattan 3,' 'Mobility,' 'Morning Star,' 'Nine-O-Nine,' 'Norlea,' 'Omega 3,' 'Passport,' 'Pegasus,' 'Pennfine,' 'Prelude III,' 'PST-2CB,' 'Prizm,' 'Quick Start,' 'R2,' 'Radiant,' 'Repel III,' 'Roadrunner,' 'Saturn II,' 'Stardance,' 'Sunshine,' 'Williamsburg' and 'Wind Star' have improved low-temperature tolerance. Varieties including 'Accent,' 'Achiever,' 'Laredo,' 'Manhattan III,' 'Palmer III,' 'Panther,' 'R2' and 'Secretariat' resist brown patch. Several varieties of perennial ryegrass containing endophytes have improved insect resistance. Eighty varieties entered in the 2004 NTEP Perennial Ryegrass Test are being evaluated in 23 states and Quebec.

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