

OHIO

PENNA.

Central
4 year
average

low
mainte-
nance

disease
resis-
tance

Northern
3 year
average

	Central 4 year average	low mainte- nance	disease resis- tance	Northern 3 year average	
2	A*	B	1	A	
	B	C	2		
1	A			B	
	B				
2	C			A	
	B				
	B				
B	C	1	C		
2	A				
1					
	A			A	
	A				
1	A	B	1	B	
1	A	C	2	B	
	B	C	1	C	
	A				
	B				
	A			A	
2	A*	B	1	A	
2	B	C	1	B	
	B			A	
3		A	2	C	
3	C	A	2		
	B	A	2	C	
	A				
	C				
	A				
	A				
	A				
	B				
	C				
					4 yr. av.
	C				B-C
	A				A-A
	C				B-C
	B				
	B				A-B
	A				A-A
	C				

CULTIVARS

Continued

classed in the ratings. They may have hidden virtues! I believe we can safely say that any of the cultivars in the tables will make an acceptable fine turf if "all goes well", if the grass is planted to favorable habitat and is well tended. But the search goes on for ways to minimize risk, to supply still better looking, more functional cultivars even if adopted only to certain uses (such as the golf course fairway or roadside berm) or to accommodate what has traditionally been marginal habitat.

Tables 1-3 reflect ratings by many individual observers, any of whom might see things differently than would another person. Certainly the ratings vary with fluctuations of the season, and from year to year (for the weather is not alike any two years). Keep in mind, too, that cultivars often go "down hill" with time, perhaps because new races of disease arise, or because abundant use of the cultivar permits epidemic spread. Some cultivars have special uses or adaptations, the reason why the Lawn Institute Variety Review Board's list included such self-reliant cultivars as Arboretum (appearance of which is little different from old-fashioned common bluegrass!). Some cultivars may be especially useful in blends or mixtures, extending the seed of more expensive selections while not downgrading performance of the combination. Quite often, as has recently been noted in Ohio scorings, cultivars not high-ranking of themselves may end up in near the top when combined in blends!

Artistic concoctions

Concocting blends (cultivars of the same species) or mixtures (combinations of different species) is more an art than a science. At the Lawn Institute identical mixtures planted on different occasions, and in different locations, may sometimes have bluegrass dominate, another time fescue. An ecological principle, "competitive exclusion", states that similar organisms in a stable environment will not exist indefinitely in balance, but that one

component will outcompete the other (which will then be gradually eliminated). Competitive exclusion often holds for lawnseed blends and mixtures, but equally often a minority component hangs on sufficiently to experience a revival should tribulation afflict the initial dominant. Merion, for example, is a strong competitor, tending to dominate less aggressive cultivars such as Fylking, until stripe smut (against which Fylking is resistant) sets back the Merion.

More studies needed

It is not possible to test blends and mixtures under all environmental conditions, and much is still to be learned about competitiveness of cultivars. Experience with crop plants has proven that some cultivars outcompete the weeds much better than do others, whether due to inherent vigor or to allelopathy (repressive secretions). The interactions are so involved, and beyond our ability to do much about them, perhaps lawnseed blending will always remain an art, in which experienced seedsmen do their best, realizing that sometimes one, sometimes another component will "carry the ball". It's really immaterial just so something does persist to make a fine turf!

Many avenues still merit exploration in the breeding and selection of new lawngrasses. So far resistance to insect attack has received little attention. Breeding for harmony with pesticides is in its infancy (in Illinois, recently, bluegrass cultivars were rated for Ronstar phytotoxicity, for example). Attention is now being given performance under ultra-low maintenance (e.g. Ohio). In time breeders may incorporate special features, such as Merion's ability to photosynthesize through the leafsheath (thus enabling the grass to endure defoliation more adequately) as proved by Dr. Youngner's growth chamber work in California. Certainly there is no theoretical reason why the hardiness of grasses from harsh environments cannot be bred into less hardy cultivars. □

For table 3 see page 22

TABLE 3 Performance of lawngrass cultivars on the East Coast. A = in top third (A* = top 10%), B = in middle third, C = in bottom third of ratings compiled by local authorities. For specific responses, 1 = good, 2 = medium, 3 = poor.

KENTUCKY BLUEGRASSES	MASSACHUSETTS				CONNECTICUT			RHODE ISLAND		NEW JERSEY				MARYLAND			VA.
	overall average	spring color	Hel- minth	Dollar- spot	overall average	Hel- minth	Dollar- spot	1½"	¾"	overall average	Fusarium	Leaf spot	strip smut	Hopkins 1½"	Hopkins 2½"	Center- ville 2½"	Newport News 3-yr. av.
Adelphi	B	2	3	1	C	1-2	1-2	A	A	A*	1	1	2	B			
Arboretum																	
Arista	C			1	B	1-2	3	C	C					A	B	C	C
Baron	A	2	1	1				B	A	B	3	2	2				A
Birka	B			1	A*	1-2	1-2					1	1				
Bonnieblue	C			1				A	A*	A	3	1	1		B	A	
Brunswick								A	A*	A	3						
Enmundi										B	1						
Fylking	B	2	1	1	B	1-2	1	B	B	B	3	1	1	A*	A*	C	A
Galaxy										A	3						
Georgetown					B	1	1-2										
Glade										A	1	2	1				
Majestic	C			1				A*	B	A*	3	1	2		A	A	
Merion	A*	3	1	1	B	1	3	B	A	A	3	1	3	A	A*	B	A*
Nugget	A*	3	1	3	B	1	3	B	B	B	2	1	1	C	C	C	
Pennstar	B	2	1	1	A	1-2	1-2	B	B	B	3	1	1	B	B	C	B
Plush										A	3						
Prato					A	3	1	C	C					C	C	A	C
Ram I										A*	2						
Sodco					B	1	1-2	B	B	A	2			B	C	B	A*
Sydsport	C			2	C	1	3	A	B	B	1	1	1	C	A	B	A*
Touchdown	B			1						A*	1	1	1				
Common						3	1-2	C	C	C	1	3	1	C	B	B	C
Park	B	1	1	1	C	3	1-2	C	C	C	1	3	1	B	B	C	C
Windsor					B	3	1-2	C	C	B	1	2	3	B	B	A	B
FINE FESCUES		✓ = better high than low	Hel- minth	Dollar- spot				1½"	¾"	overall average							
Atlanta	A		2	2						A							
Banner	A									A							
Fortress										B							
Highlight	A	✓	2	3				B	A	A				B			
Jamestown	A		2	2				A	A	A				A			
Koket	B	✓						A	A	B							
Pennlawn	B		2	2				B	B	B/C				A			
Ruby	C	✓	3	2				C	C	C				C			
PERENNIAL RYEGRASSES																	
Citation										A							
Compas										C							
Derby										A							
Diplomat										A							
Game										C							
Manhattan	A									A							A
NK-100	C									C							C
NK-200	C									B							
Pelo										B							B
Pennfine	A									A							
Yorktown										A							
Common																	



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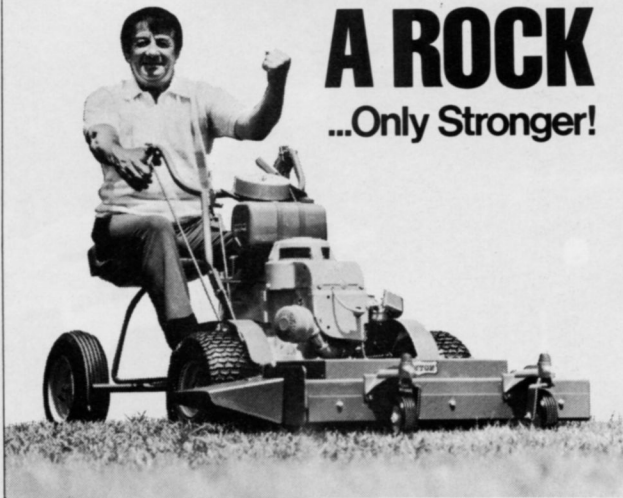
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CULTIVAR GLOSSARY

KENTUCKY BLUEGRASSES*

ADELPHI—Rutgers hybrid from an unreduced egg of Bellevue pollinated by Belturf, 80 chromosomes; chief proprietor is Adikes, Jamaica, N.Y.

Dark, low, with a lengthy season and good spring color; responds to fertilization; good disease tolerance (some leafspot Midwest, resists snowmold, rust, Fusarium and stripe smut); medium texture with foliage rather upright; about 15 percent sexual; wide adaptability; relatively few seedheads.

ARBORETUM—mass selection from hot dry hillside at Gray Summit, Mo.; chief proprietor is Mangelsdorf, St. Louis, Mo.

Indistinguishable from "old-fashioned" Kentucky bluegrass, but unusually persistent and surviving under low maintenance. Best used for unpampered, tall-mowed swards; in spite of leafspot and intermittent setback, hangs on year after year.

ARISTA—selection from Van Engelen, Holland; chief proprietor is International Seeds, Halsey, Or.

A "better-than-average" fast-starting strain useful for sportsfields and for extending mixtures; superior to other "common" types, but generally below top cultivars; disease vulnerability, but good recovery.

BARON—clonal, pure-line from Barenbrug, Holland; chief proprietor is Loft, Bound Brook, N.J.

An all-around "workhorse" cultivar lacking striking features; high ratings for vigor, reasonable disease resistant (some Fusarium susceptibility); decumbent, stocky growth (withstands low and less frequent mowing.); with average spring color and many seedheads; economical and a good cultivar for sod; consistently above average in almost all locations; similarities with Cheri and Victa.

BIRKA—European selection; chief proprietor is E. F. Burlingham, Forest Grove, Or.

Good disease resistance, especially leafspot; slow to green in spring, and winter color not the best; little information yet released, but has rated well, including with minimum care in Connecticut.

BONNIEBLUE—Rutgers hybrid from an unreduced egg of Bellevue pollinated by Pennstar, 94 chromosomes; chief proprietor is E. F. Burlingham, Forest Grove, Or.

Dark, lengthy-season, decumbent; highly apomictic; excellent disease resistance, especially for leafspot, stripe smut and rust (though suffers some from Fusarium); withstands low-mowing; may show some hot weather stress, but outstanding in cooler weather.

BRUNSWICK—one of Rutgers selections; chief proprietor Turfseed, Hubbard, Or.

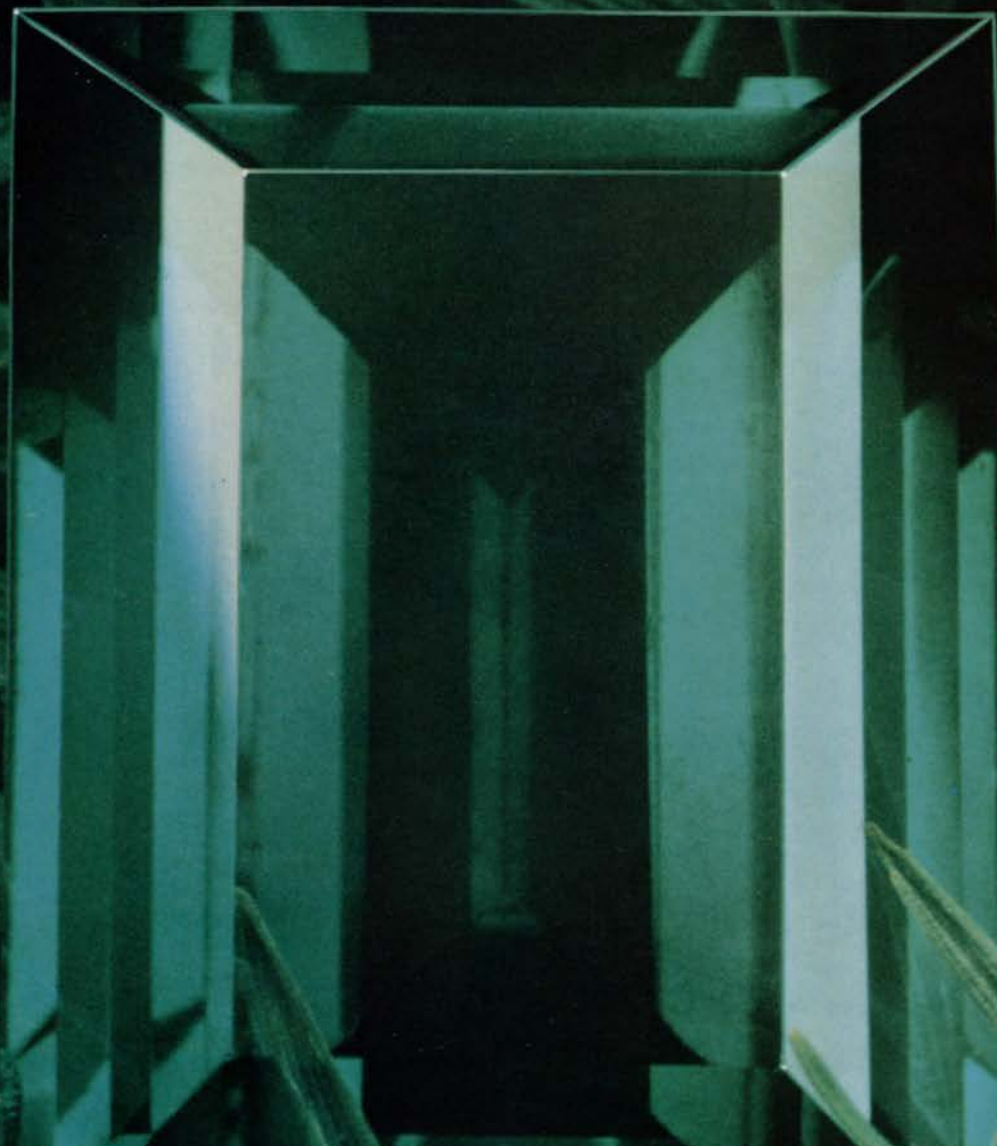
Little test information yet available.

ENMUNDI—Van Engelen, Holland, selection; chief

Continued on page 27

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CULTIVAR GLOSSARY

U.S. proprietor is International Seeds, Halsey, Or.

Excellent general properties, dense and carpet-like but not winter quality of many domestic selections; limited "test" reports.

FYLKING—from Svalof, Sweden, about 80 chromosomes; U.S.A. chief proprietor Jacklin Seed, Spokane, Wa. (0217 strain).

Very attractive, luxuriant beauty; semi-decumbent and adapted to low mowing; highly apomictic; initially quite tolerant to disease, but mildly susceptible to leafspot, etc. recent years; gene linkages similar to Pennstar, with low seedhead formation and response to moderate fertilization; not aggressive; widely available as seed of excellent quality.

GALAXY—hybrid from Rutgers, Bellevue the seed parent, Pennstar the pollen plant, approximately 91 chromosomes; chief proprietor is Whitney-Dickinson, Buffalo, N.Y.

Excellent cool-weather performance and extended season; dark, low, highly apomictic, and well regarded for turf quality; medium texture; some susceptibility to stripe smut, but generally resistant to leafspot, Fusarium, mildew and rust: suggested in blends where smut is a problem.

GEORGETOWN—Rutgers selection; chief proprietor is Loft, Bound Brook, N.J.

Little reported information available yet, but initial trials are encouraging.

GLADE—selection, from a New York lawn; chief proprietor is Jacklin, Spokane, Wa.

Low, dark, resistant to mildew (a chief cause of loss in shade); recommended as a slow-growing, low-profile cultivar for shade or sun; highly true-to-type and very attractive; stands low mowing (tees); some characteristics of high-rating Birka, but better color; mild leafspot and Fusarium susceptibility, but quite resistant to rust and stripe smut.

MAJESTIC—another Rutgers hybrid of Bellevue pollinated by Belturf; chief proprietor is Loft, Bound Brook, N.J.

Beautifully low and dense, one of the most decumbent cultivars; makes a strong sod, with lengthy season; reasonably tolerant of all diseases; "tops" in Long Island tests; stands out in cool weather, particularly for dark color and low profile (excellent winter appearance); somewhat slowgrowing, and takes time to mature.

MERION—highly apomictic selection discovered near Philadelphia; sponsor is Merion Bluegrass Association, Hubbard, Or.

Long the "standard of excellence" for bluegrass cultivars — low, dense, of medium texture, and very attractive; excellent leafspot resistance, but suffering today from "new" diseases such as stripe smut and Fusarium as well as rust and mildew; still "tops" where diseases are not a serious problem; needs generous fertilization; better in more northerly regions than southerly ones; fairly slow to establish but strongly competitive and with good wear-resistance; tolerates low mowing.

Continued

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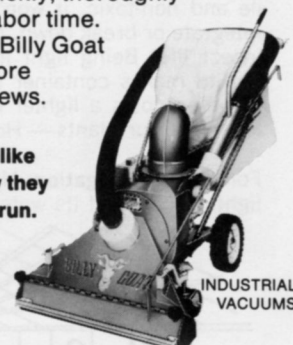
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CULTIVAR GLOSSARY

Continued

NUGGET — selection, discovered near Cook Inlet, Alaska; chief proprietor is Pickseed West, Tangent, Or.

A "breakthrough" for dark color, low, dense growth, and general attractiveness; some buildup of diseases (dollarspot, red thread and

Fusarium principally), but good leafspot resistance and at least fair tolerance of mildew, rust and smut; "rave" ratings where free from disease; better northward than southward; does well in shade; slow vertical growth; excellent sod strength, rhizome and leaf production, but

somewhat slow to establish.

PENNSTAR—Pure line highly refined at Penn State Univ. from European seed stock; chief proprietor is Seed Production Improvement Corp., Minneapolis, Minn.

Exceptional grace and beauty; resistant to serious disease attack, though suffering some from Fusarium; thatches little, strongly apomictic; requires only moderate fertilization; linkage of characteristics similar to Fyking; withstands low-mowing; produces few seed-heads.

PLUSH—clonal selection from under a pinoak in New Jersey; chief proprietor is FFR Cooperative, West Lafayette, Ind.

Competitive and widely adapted; medium green color, reasonable disease resistance (some susceptibility to Fusarium), and low habit; exceptionally broad leaf blade provides a bold texture; early spring green-up; seems to perform well in southern parts of bluegrass belt, and rates with elite varieties under continental conditions.

PRATO — selection, from Holland; chief proprietor is Northrup-King, & Co., Minneapolis, Minn.

An above-average choice especially used for extending blends and mixtures; of good color, reasonably low, dense and drought-resistant; fine texture, few seedheads; seems resistant to dollar-spot, mildew, rust and stripe smut.

RAM I—Rutgers selection; U.S.A. proprietor is Loft, Bound Brook, N.J.

Little information, but generally good performance in reported tests.

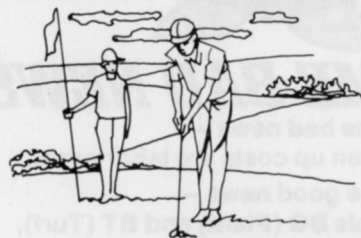
SODCO — composite of four "pure lines" selected at Purdue Univ.; chief proprietor is Purdue Agri. Alumni Seed Improv. Ass'n., W. Lafayette, Ind.

A tailored variety noted for low, slow growth, dark color, shade tolerance, good resistance to all diseases; of medium texture; few seed-heads, and not prone to thatch; should be well fertilized for top performance; adapted to shade; slow establishing (thus needing less mow-

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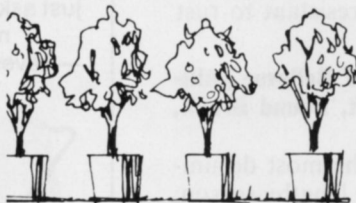
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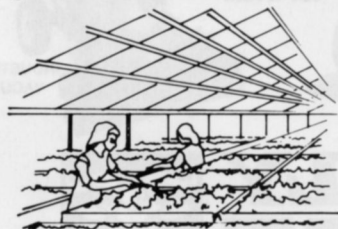
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ing), but takes half again as long to make mature sod as faster cultivars; widely adapted.

SYDSPORT — selection, from Sweden; chief proprietor is E. F. Burlingham, Forest Grove, Or.

Bold (broad-bladed), vigorous and aggressive, suggested for "hard use" areas; resists leafspot, but suffers some from rust and dollarspot, and may develop thatch; well thought-of where an "ebullient" selection is appropriate.

TOUCHDOWN — Rutgers and USGA release, clone discovered by Supt. Rewinski on Long Island fairway; chief proprietor is Pickseed West, Tangent, Or.

Bright-green, medium-low, fine-textured cultivar with rather upright foliage; stands low mowing (tees); long growing season; disease-resistant (except mildly affected by Fusarium); highly apomictic; requires only moderate fertilization, yet establishes rapidly.

FINE FESCUES**

ATLANTA—selection; chief proprietor Northrup King & Co., Minneapolis, Minn.

Little information; promising having rated highly in limited testing.

BANNER—Rutgers 45-clone synthetic from East Coast Sources; proprietor is E. F. Burlingham, Forest Grove, Or.

Chewings type; fine texture, dark color, moderately low-growing; strong sod; widely adapted, perhaps into the Southeast; tolerates low pH and low fertility.

FORTRESS—Rutgers 6-clone synthetic assembled from old turf areas East Coast; proprietor is Turfseed, Hubbard, Or.

A spreading fescue, bred especially with roadside use in mind; spreads aggressively but thatches little; mid-summer leafspot, but recovers well; usual fescue tolerance of low fertility, low pH and shade; utilitarian rather than consistently beautiful.

HIGHLIGHT — selection? from Holland; chief proprietor, International Seeds, Halsey, Or.

A "show-off" (especially bright and beautiful) of the Chewings type; establishes rapidly, and has excellent color; can be mowed low for over-seeding golf greens.

JAMESTOWN — selection from abandoned seaside planting in Rhode Island; chief proprietor, Loft, Bound Brook, N.J.

A Chewings-type fescue with exceptionally low growth and dark color; durable and recuperative; enjoys high ratings generally; some-

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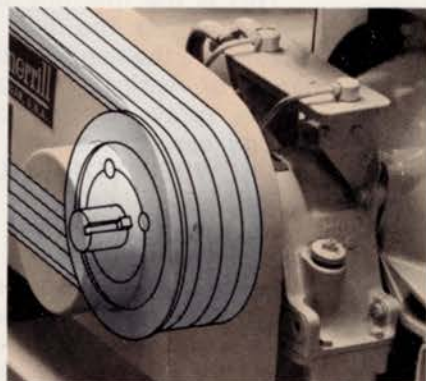


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CULTIVAR GLOSSARY

Continued

what susceptible to leafspot, but good recovery and strong summer performance; excellent for golf green overseeding.

KOKET — synthetic from 5-clonal lines selected in Holland; chief proprietor, E. F. Burlingham, Forest Grove, Or.

A strong Chewings cultivar with excellent tillering capacity; consistently among the top-rating cultivars; good density and weed resistance; not quite so brilliant as Highlight, but perhaps steadier, with good disease resistance.

PENNLAWN — tripartite, syn-

thetic from Pennsylvania State Univ.; public variety.

Familiar "improved variety" standard for comparison, exhibiting general "average" performance.

RUBY — selection, from Holland; proprietor, Northrup, King & Co., Minneapolis, Minn.

An open-growing fescue of the spreading type, especially useful in mixtures, and for low maintenance areas; tends to remain vegetative, with limited seedhead formation; good spreader and establishes rapidly; intermediate in turf qualities.

PERENNIAL ryegrasses***

CITATION — Rutgers 3-clone synthetic; proprietor is TurfSeed Inc., Hubbard, Or.

Fine-texture, dark color and semi-decumbent growth habit characteristic of the new "turf-type" perennial ryegrasses; mows neatly; good summer performance.

COMPAS — mass selection, from Holland; chief proprietor, International Seeds, Inc., Halsey, Or.

More "turf-type" qualities (reasonably low growth and density) than common ryegrass, fairly fine-textured; wear resistant; establishes rapidly; one of the earlier introductions of intermediate nature.

DERBY — 12-clone synthetic assembled in Indiana; chief proprietor, International Seeds, Halsey, Or.

All-purpose cultivar ranking with Manhattan and Pennfine in quality; dense, mows cleanly, tolerates low mowing; good disease tolerance; wear-resistant and reasonably tolerant of cold; not so fine-textured as is Pennfine.

DIPLOMAT — A Rutgers synthetic; proprietor is Loft, Bound Brook, N.J.

An excellent turf-type cultivar a peer of Citation, Derby, Manhattan, etc., but not yet widely reported upon.

GAME — clones screened in Holland; U.S.A. proprietor is Willamette Seed, Shedd, Or.

A widely promoted, utilitarian



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