



- ◆ *New and improved*
- ◆ *Heat tolerant variety*
- ◆ *Fast establishing*
- ◆ *Better wear tolerance*
- ◆ *Shorter mowing ability*
- ◆ *Improved turf density*
- ◆ *Excellent for overseeding*

In recent trials, IMPERIAL creeping bentgrass shows improved turf density due to its finer leaf texture. IMPERIAL can be used on golf greens, tees, and fairways, grass court tennis, bocci ball or croquet courts in high maintenance sports turf applications. IMPERIAL has improved wear tolerance, among other newer bentgrass varieties in the latest NTEP trials. It has a fast establishment rate and very good seedling vigor.

IMPERIAL has a moderately fine leaf texture with a pleasing green color that holds through the cooler seasons. It is an excellent performer in golf and sports turf, as far as the transition southern zone. IMPERIAL creeping bentgrass has the ability to tolerate extreme heat in summer, while maintaining cold hardy characteristics of the creeping bentgrass species. The root systems were screened for heat tolerance at temperatures of 110 degrees Fahrenheit. This helps in mid summer bentgrass management in all geographic areas. Foliar growth continues at 85 to 90 degrees Fahrenheit under normal care. As a matter of fact, IMPERIAL has good tolerance to brown patch, and prefers higher rates of summer fertility than Penncross. Mowing heights at .125 inch or less have been achieved for higher stimp meter readings during tournament play. Through the process of topdressing and interseeding, worn out greens improve and are more tolerant of summer and traffic stresses.

SYN 92-5 or IMPERIAL creeping bentgrass is a seven clone synthetic variety for which the parents were selected for uniformity in plant type and leaf color. The variety has been developed from Texas A&M's breeding program by Dr. C. Milton Engelke in conjunction with the United States Golf Association and Bentgrass Research, Inc. We look forward to grass gurus using new IMPERIAL, an exciting new heat tolerant bentgrass for sports turf.

*Developed by
Texas A&M University
with support from the USGA and
Bentgrass Research, Inc.*



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NIEP Report #96-1 Putting Greens Test - 1995 Data
Mean Turfgrass Quality Ratings at 26 Locations

Variety Comparison

IMPERIAL (Syn 92-5)	5.6
Pennlinks	5.6
SR 1020	5.5
Trueline	5.2
Penncross	5.1
18th Green	5.0
Seaside	4.0

Turf Quality Ratings (LSD =0.3)

NIEP Report #96-1 Putting Greens Test - 1995 Data
Leaf Texture Ratings 1 to 9; 9 = very fine

Variety Comparison

IMPERIAL (Syn 92-5)	7.2
Crenshaw	7.0
SR 1020	6.9
18th Green	6.3
Trueline	6.1
Penncross	5.7
Seaside	4.6

Leaf Texture Ratings (LSD =0.3)

NIEP Report #96-1 Putting Greens Test - 1995 Data
Summer Density Ratings 1 to 9; 9 = maximum

Variety Comparison

IMPERIAL (Syn 92-5)	7.1
SR 1020	6.9
Crenshaw	6.8
18th Green	6.1
Trueline	6.0
Penncross	5.6
Seaside	3.7

Summer Density Ratings (LSD =0.5)

NIEP Report #95-3 Putting Greens Test - 1994 Data
Fall Density Ratings 1-9; 9 = Maximum Density

Variety Comparison

IMPERIAL (Syn 92-5)	6.3
Crenshaw	6.1
SR 1020	6.1
Trueline	5.7
Pennlinks	5.4
18th Green	5.1
Penncross	4.8

Fall Density Ratings (LSD =0.6)

pH Tolerance

Ranges from 5.5 to 8.5, Ideally at 6.0 to 6.5

Germination Time

Fast; 7 to 10 days is normal in spring and fall with irrigation

Heat Tolerance

Excellent; continues growing at 85 to 90 degrees Fahrenheit

Cold Tolerance

Tolerates temps of 0 degrees Fahrenheit or below.
No winterkill in testing in Minnesota.

Disease Resistance

Good against brown patch, fusarium, leaf spot

Weed Resistance

High summer and fall density and aggressive growth restricts weed encroachment

Texture

Fine upright growth for better ball speed and mowing quality at agronomically beneficial mowing heights

Color

Pleasing medium deep green

Recommended Seed rates:

*New Tees, Greens, and Fairways:
1 to 2 # per 1000 square feet
40 to 85 # per acre*

*Overseed:
0.5 to 2 # per 1000 square feet
20 to 85 # per acre*

*Programmed verticutting and topdressing:
1/8 to 1/2 # per 1000 square feet*