

a total of 25 plugs per plot (Photo 2). Measurement of leaf-blade widths indicated that all but one of the *Z. japonica* x *Z. matrella* progeny had a finer texture than Meyer. By mid-August, Meyer zoysia exhibited 56 percent plot coverage. Three of the zoysia progeny were slower to spread than Meyer, but four had higher levels of coverage than Meyer. Two of the *Z. japonica* x *Z. matrella* experimentals had more than 70 percent coverage by mid-August.

In February, we culled members of the select group of 31 down to a elite group of 10 progeny for more intensive evaluation of cold hardiness. Meyer and Cavalier were included as well. The LT50s were -4.8 C for Cavalier and -16.1 C for Meyer. All 10 of the newly advanced hybrid zoysiagrass progeny demonstrated good cold hardiness, with LT50s ranging from -14.6 C to -16.7 C (Photo 3).

We are encouraged that some of the zoysia progeny evaluated have demonstrated a finer texture and faster rate of lateral spread than Meyer. In addition, 10 of these progeny tolerated temperatures between -14.0 C and -17.0 C in a controlled freezing experiment.

### PHOTO 3



Two *Z. japonica* x *Z. matrella* progeny pictured on the left tolerated exposure to -14.0 C after a February field sampling. Cavalier (*Z. matrella*), on the right, did not.

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## REFERENCES

- Anderson, J., M. Kenna., and C. Taliaferro. 1988. Cold hardiness of Midiron and Tifgreen bermudagrass. *HortSci.* 23:748-750.
- Anderson, J., C. Taliaferro, and D. Martin. 1993. Evaluating freeze tolerance of bermudagrass in a controlled environment. *HortSci.* 28:955.
- Dunn, J., and K. Diesburg. 2004. *Turf Management in the Transition Zone.* John Wiley & Sons, Hoboken, NJ.
- Dunn, J., S. Bughara, M. Warmund, and B. Fresenburg. 1999. Low temperature tolerance of zoysiagrass. *HortSci.* 34:96-99.
- Engelke, M., and S. Anderson. 2003. Zoysiagrasses (*Zoysia* spp.). p. 271-286. In M.D. Casler and R.R. Cuncan (ed.) *Turfgrass biology, genetics, and breeding.* John Wiley & Sons, Hoboken, NJ.
- Engelke, M., J. Reinert, P. Colbaugh, R. White, B. Ruemmele, K. Marcum, and S. Anderson. 2002a. Registration of Cavalier zoysiagrass. *Crop Sci.* 52:302-303.
- 2002b. Registration of Crowne zoysiagrass. *Crop Sci.* 52:303-304.
- 2002c. Registration of Diamond zoysiagrass. *Crop Sci.* 52:304-305.
- 2002d. Registration of Palisades zoysiagrass. *Crop Sci.* 52:305-306.
- Fairchild, D. 1938. *The world was my garden: Travels of a plant explorer.* Charles Scribner's Sons, New York.
- Fry, J., and P. Dernoeden. 1987. Growth of zoysiagrass from vegetative plugs in response to fertilizers. *J. Amer. Soc. Hort. Sci.* 112:286-289.
- Grau, F.V., and A.M. Radko. 1951. Meyer (Z-52) zoysiagrass. *USGA J. and Turf Manage.* 4(6):30-31.
- Green, D., J. Fry, J. Pair, and N. Tisserat. 1993. Pathogenicity of *Rhizoctonia solani* AG-2-2 and *Ophiostoma herpotricha* on zoysiagrass. *Plant Dis.* 77:1040-1044.
- Halsey, H. 1956. The Zoysia lawn grasses. *Natl. Hort. Mag.* 35:152-161.
- Marcum, K., M. Engelke, S. Morton, and R. White. 1995. Rooting characteristics and associated drought resistance of zoysiagrass. *Agron. J.* 87:534-538.
- National Turfgrass Evaluation Program (NTEP). 2002. 1991 National zoysiagrass test (1992-1995 data). [Online] Available at [www.ntep.org/reports/zg91/zg91\\_96-15f/zg91\\_96-15f.htm](http://www.ntep.org/reports/zg91/zg91_96-15f/zg91_96-15f.htm) (accessed 12 Sept. 2002; verified 10 April 2008).
- Patton, A.J., and Z.J. Reicher. 2007. Zoysiagrass species and genotypes differ in their winter injury and freeze tolerance. *Crop Sci.* 47:1619-1627.
- Qian, Y., S. Ball, Z. Tan, A. Koshi, and S. Wilhelm. 2001. Freezing tolerance of six cultivars of buffalograss. *Crop Sci.* 41:1174-1178.

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# classic cartoon

**H**e is what he is, and that's all that he is. You may know that phrase in the first person, uttered by a rail-thin, but forearm-thick sailor with a hankering for an even skinnier girl and a penchant for canned greens.

I first met Popeye the Sailor when I was a lad of seven watching Saturday morning cartoons in Davenport, Iowa. While I was not the graduate school-trained aesthete that I became, I was instantly attracted to the under-the-breath mumblings of Popeye, his brute strength and the way he always got the best of Bluto the bully.

I was particularly attracted to one particular cartoon, "Popeye the Sailor Meets Ali Baba's Forty Thieves," a 17-minute epic that featured Popeye, Olive Oyl and Wimpy stranded in the desert, only to meet and battle with Bluto as Abu Hassan. I found a copy of a junky old VHS with the cartoon on it, and I showed the episode to my friends repeatedly. They didn't seem to share my love, though they did crack up when I slipped the tape into a VCR during World History class, surprising Mrs. Jarvis, who thought we would be learning about British Kings.

It's exactly that spirit of impishness that gave birth to Popeye. He first appeared in a 1929 comic strip called

## DEPRESSION-ERA HERO OF THE WORKING CLASS STILL RESONATES TODAY

BY MARK LUCE

"Thimble Theatre," which was penned by E.C. Segar. Popeye caught on quickly, and eventually grabbed the eye of cartoon innovators Max and Dave Fleischer. In 1915, Max had invented the rotoscope, which allowed animators to trace drawings over live action, giving a much more fluid feel to animation. Through the 1920s, the pair kept atop of the animation field, providing plenty of inspiration for Walt Disney. But it was the sultry Betty Boop that propelled the duo into the stratosphere, and a guest appearance by Popeye in a Boop short not only brought the brothers more success, it also delivered Popeye his own reels.

Those Fleischer Studio-produced Popeyes (now available on gorgeous, restored DVDs) have a significantly different feel than the innocent whimsy of early Disney. The troubled economic times of the 1930s had audiences clamoring for a working-class hero in a rough-and-tumble urban environment, and Popeye fill the bill beautifully. He wasn't educated, but he was street smart. He wasn't good-looking, but he was a charmer. And most of all, he wasn't afraid of anything or anyone.

The Fleischers eventually lost con-



rol of the franchise, and the Popeyes of the 1940s and 1950s don't have the bite of those first cartoons, trading the grit of life with suburban barbecues and far-less sophisticated animation.

Sharing these cartoons with my sons has been an unmitigated treat. They sing along to the trademark opening and cackle at the sight gags that recall the best of Buster Keaton. Even better, they will constantly say, "Dad, Dad, Dad, this is the best part," as Popeye one-ups Bluto once again.

Whether you watch them with the kiddies or not, you will find that the four-disc set, "Popeye the Sailor: 1933-1938," will be strong to the finish.

*Mark Luce lives in Kansas City, Mo., where he has become addicted to old cartoons.*

**GOLFDOM** (ISSN 1526-4270) is published monthly (12 issues per year) by Questex Media Group, Inc., 306 W Michigan Street, Suite 200, Duluth, MN 55802. Corporate office: 275 Grove St., Suite 2-130, Newton, MA 02466. Accounting, Advertising, Production and Circulation offices: 306 W. Michigan St., Suite 200 Duluth, MN 55802-1610. Subscription rates: One year \$39 (U.S. and possessions), \$59 (Canada and Mexico) and \$89 (all other countries). Air expedited service is available in countries outside the U.S. and Canada for an additional \$75 per year. Current issue single copies (prepaid only) \$5 (U.S. and possessions), \$7 (Canada and Mexico) and \$8 (all other countries). Back issues (if available, prepaid only) \$10 (U.S. and possessions), \$14 (Canada and Mexico) and \$16 (all other countries); add \$6.50 per order shipping and handling for both current and back issue purchases. Periodicals postage paid at Duluth MN 55806 and additional mailing offices.



POSTMASTER: Please send address changes to GOLFDOM, P.O. Box 1268, Skokie, IL 60076-8268. Canadian G.S.T. Number: 840033278RT0001, Publications Mail Agreement number 40017597. Printed in the U.S.A.

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