

# When Is Fescue Not a *Festuca*?

Debate ensues over changing classification of grass variety

By Curt Harler, Managing Editor

Since forever — or at least since most gray-haired golf course superintendents were in school — broadleaf fescues were firmly planted in the genus *Festuca*. We dutifully memorized that it was in the *Gramineae* family, and we quickly became aware of its important place in the turf world.

That may change. Or, it may already have changed. A move to change the classification is being pushed by the most recent generation of taxonomists.

“The breeders want to stick to *Festuca*,” says Leah Brilman, director of research and

*Schendonorus* was once the name used to refer to the segment of the genus of *Festuca*, to which the broadleaved fescues belonged.

“If we accept these names, do we have to call it tall ryegrass? Or tall *Schendonorus*?” Brilman asks.

Good question. And the answers, according to proponents of the name change, will come from down deep — way down deep in the genetics of the plant and not the way they look. Taxonomists are moving away from phenotypic classification (the way things look) to genotypic classification (the way their genes are defined).

These taxonomists say there are genetic markers that indicate that not all fescues conform to the *Festuca* nomenclature.

“They don’t belong in *Festuca*,” says Mary Barkworth, director of the Intermountain Herbarium at Utah State University. “People say, ‘Why fuss? It’s been that way since the 1970s.’”

However, since then there has been a great deal of protoplast DNA work done.

“That DNA work puts them with *Lolium*,” Barkworth says.

On a more visual basis, Barkworth points to the morphology of the spike and their crossing relationships as proof that they do not belong in *Festuca*.

Agronomists and seed breeders — including the dean of turfgrass James Beard, Ph.D. — beg to disagree with the change. Besides, they note, linking to past names is important for germplasm repositories. Breeders complain they have had four names thrown at them in recent years — without any input from the breeding community. And they like *Festuca*.

And while the battle has been joined, there’s little hope for a truce and less expectation for an immediate resolution to the tiff.

Some turfgrass experts shrug and say “whatever” to taxonomy fights. However, the

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*Taxonomists are moving away from phenotypic classification (the way things look) to genotypic classification (the way their genes are defined).*

technical services for Oregon Seed Farms. Brilman received broad support for her motion to keep fescue as *Festuca* from a number of other breeders at the recent Crop Science Society of America meetings in Pittsburgh. However, the plant breeders don’t hold all the cards in this game.

“Some recent taxonomists want to put it in *Festuca*,” Brilman says, “and others want it in *Festuca*.”

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turfgrass arm of CSSA, at the urging of the Turf Breeders Association (TBA), did vote to use *Festuca arundinacea*. Score one — maybe two — for the breeders.

In fact, there is a strong argument to be made that recent CSSA guidelines say the scientific name to use for tall fescue is *Lolium arundinaceum* (Schreb.) Darbysh.

Some observers suspect this may be a New Age versus Old Age situation. The standard reference for turfgrass on the Web, “The Grass Manual,” says fescue is now *Schedonorus arundinaceus*.

Those who use hard-copy books like the standard “Manual of the Grasses of the United States” by A.S. Hitchcock (and revised by Agnes Chase), point out that it uses *Festuca arundinacea* — and the editors reached that decision after looking at all the options for many years. Vickie Bradley says her portion of GRIN (the U.S. Department of Agriculture’s research group known as the Germplasm Information Network) still calls it *Festuca*.

Those favoring the change note that GRIN, even though part of the Agricultural Research Service, is not an official site for nomenclature. Supporters of the new name say they suspect GRIN is still using the old binomial only because they have worldwide clientele and many folks, who are not privy to current literature, don’t know about the name change.

Actually, GRIN does recognize *Schedonorus phoenix* (Scop.) Holub as the official binomial on-line (<http://www.ars-grin.gov/cgi-bin/npgs/html/taxonpl?429056>) but also uses *Festuca arundinacea*.

If you need to point to one person responsible for the change in taxonomy, it likely would be Barkworth. She chose the name *Schedonorus* from among four proposed alternatives and put it in her recent revision of Flora North America. In effect, that made it the official name for fescue, at least here in the United States.

To throw some fat onto the fire, she says she has questions on *Volpia* (foxtail or Zorro fescue), too. Barkworth notes that its name is based on European conventions that simply were imported with little question. But she is firm that *Festuca* is not where the broadleaf fescues belong.

“In my honest opinion, I consider them *Lolium*, but I’ll go along with either *Lolium* or *Schedonorus*,” she says.

Many turf agronomists say the change took them aback, but they were willing to accept it because someone has to be the naming authority and Barkworth, given her position of prominence in the field — coupled with her knowledge and stature — is the logical person to make that decision. Supporters say CSSA should be using the name *Schedonorus*, not *Lolium* and *Festuca*.

If you’re keeping score, it might be safe to discount *Lolium*. *Lolium arundinaceum* hasn’t been an accepted name for tall fescue historically. While it received some attention, it seems to be a transient name.

The conflict between CSSA and Inter-mountain Herbarium over use of *Schedonorus* and *Festuca* is likely to go a few more rounds. Referees in the fight will be the editors of the many reports done by researchers in all areas — genetics, chemicals, fertility and mowing. Each time one refers to tall fescue another gong will sound and an editor will stand up and score points for one side or the other.

On the golf course, however, it will likely remain plain, old tall fescue.

Curt Harler is managing editor of *Golfdom’s TurfGrass Trends* section.

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