Dr. Henry Fribourg, shown here, and co-authors David Hannaway (M.S. Plant Sciences '75) and Mark West have unraveled some mysteries about tall fescue, one of the most important forage and turf grasses in Tennessee and in the United States.
A new book co-edited by a University of Tennessee professor emeritus sheds light on the importance of watching grass grow. As it turns out, not only is the activity pretty interesting, it’s relevant to the health and welfare of livestock and ultimately the sustainability of the whole planet.

The book, *Tall Fescue for the Twenty-First Century*, is the story of the rise in popularity of tall fescue as a turf and forage grass and of the scientific efforts to pinpoint the reasons that cattle consuming the popular grass fail to thrive and mares give birth to dead foals. The book details the effectiveness of collaborative research and of the United States’ land grant university system.

Henry Fribourg, professor emeritus in the UT College of Agricultural Sciences and Natural Resources Department of Plant Sciences, spent much of his career researching tall fescue Kentucky-31. The fescue is the most important cultivated pasture grass in Tennessee and the United States, covering millions of acres. Its importance continues to increase in other regions with similar climates.

Despite its overwhelmingly favorable agronomic properties, tall fescue consumption causes more than $600 million losses annually in cattle and other livestock in the United States, through poor health and reproductive performance.

In the book, Fribourg, his co-editors and 59 contributors describe a complicated series of scientific investigations spanning disciplines from horticulture to veterinary medicine over the last 35 years—and involving researchers from around the globe. The collaborations proved that a fungus hosted by the tall fescue wreaks havoc on the intestinal, blood, and reproductive systems of the ruminant animals that consume it. Even more investigations outlined in the book describe the research advances that allowed science to develop management practices and new grass cultivars with nontoxic endophytes.

Published by the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America, the monograph should hold broad appeal among forage and turf scientists and scientists from other disciplines, crop and livestock producers, horse breeders, users of turf, students, teachers, and even the general public.

Fribourg co-edited the book with former UT Plant Sciences student David Hannaway, now a professor of crop and soil science at Oregon State University, and Charles West, professor of crop, soil, and environmental sciences at the University of Arkansas. In describing the effort, the co-editors write, “The changing understanding of tall fescue reveals how science develops and moves through subject matter disciplines, challenges, and new advances in research and technology.”

*Tall Fescue for the Twenty-first Century* will be available as a traditional book, including a CD of color illustrations. A free, public-access version will also be available later this year on the Internet. Fribourg is particularly proud that the work will be openly available. “Our monograph is a valuable source of scientific knowledge. Its applications for a diverse worldwide readership of students, teachers, producers, and managers are enormous,” he said. –Patricia McDaniels