# Get to Know Your Researcher

Dr. Bruce Coulman
University of Saskatchewan

Winner of the 2015 CFGA Leadership Award, Dr. Bruce Coulman is a leader in Canadian forage development. He is a professor and former head of the Plant Sciences Department at the University of Saskatchewan where his research focuses on breeding perennial forage grasses and annual cereal forages and forage agronomy. He has been involved in the development and registration of over 20 forage cultivars through his work at Macdonald College of McGill University, the University of Saskatchewan and Agriculture and Agri-Food Canada.

CFGA asked Dr. Coulman for his opinion about current forage research, where he sees it going in the future and what he is currently working on. Here are his responses:

**How long have you been involved in forage research?**
Just over 45 years, including my MSc and PhD work.

**How have you seen things change in forage research?**
Today, there are far fewer forage researchers in Canada compared to the 1980s. Recently, there has been increased interest in, and funding for, forage research, particularly from the beef industry. There has also been increased work in genomics to improve forage crop species and this will become more important in the future.

**What are the future opportunities for forage growers in the future?**
There is presently a large demand for forage for livestock production in China and the middle-eastern countries and local production cannot meet the demand. As the world's population becomes more affluent, demand for meat will increase, increasing the demand for forages even further. Canada is far from many of these markets, creating high transportation costs, but we could become a major supplier of forage.

**What is your favourite aspect of forage research?**
Forage research, particularly forage breeding, is a long-term process, so one must be patient. I enjoy being in our forage experimental fields during the growing season, meeting other forage researchers to learn the latest developments and to plan collaborative research and visiting producers who are using varieties or practices that have been developed in our program.

**What are you currently working on in forage research?**
Our present breeding program is focussing on the species crested wheatgrass and meadow bromegrass, which are two of the most widely used hay/pasture grasses in western Canada. Hybrid populations have been made by crossing smooth and meadow bromegrass to produce high-yielding cultivars, which have been popular with cattle producers; work continues to further improve hybrid bromegrass.

We have recently introduced genomic analysis in our breeding program and this will play an increasing role in the future. The genomics work will allow us to identify specific genes of importance and reduce the amount of time required to select improved varieties. In addition to the breeding work, we are evaluating perennial grass and legume forages in pure stands and mixtures to determine yield and quality of fall stockpiled forage.

Crested wheatgrass (*Agropyron cristatum*) – Left: AC Goliath (4N). Right: AC Parkland (2N)
*Photo courtesy Dr. Bruce Coulman*