EDUCATION PROFILE

DR WAYNE SMITH

RESEARCH GOALS
Texas A&M University (TAMU) is a leader, both within the US and worldwide, for its research and education in the field of agriculture, which support the state in what is, and historically has been, one of its most productive industries. Although ranching, especially of cattle, continues to be Texas’ strongest contribution in this area, it is also a national leader in a number of lucrative crops, including cotton. In fact, Texas has devoted more space to farms than any other state, with over a quarter of a million farms covering 130 million acres of land.

Students travel from all over the world to attend TAMU in the hopes of benefiting from the accumulated expertise of the institution in agriculture research, including plant breeding. This crucial discipline of agricultural science focuses on producing new and improved versions of the most important crop species, and is a valuable tool for all growers.

Dr Wayne Smith is Professor and Associate Head of Soil and Crop Sciences at TAMU. In addition to the responsibilities of those roles, he has led recent efforts at the University to widen the availability of its plant breeding programmes. TAMU’s distance plant breeding MS and PhD programmes make these graduate degrees accessible to participants around the world who would not otherwise have such opportunities because of employment or other situations.

METHOD
The distance plant breeding programmes grew out of the successful collaborative experiences of TAMU’s Department of Soil and Crop Sciences and Department of Horticultural Sciences with the Texas A&M AgriLife Research and Extension Centers located across the state. Unlike other courses of a similar nature, TAMU’s distance degrees allow students to conduct thesis and dissertation research at local agricultural research facilities with the help of designated distance co-chairs.

This local support is combined with the remote assistance of TAMU plant breeding professors, who are available to direct the distance students throughout their degree programme. Smith himself, for example, frequently acts as an on-campus co-chair. Students able to travel to the Texas campus are encouraged to decide for themselves on a suitable balance of time spent learning remotely versus traditional on-campus experience. The flexibility of this programme makes the courses appealing not only to degree students, but also to agricultural professionals hoping to continue their development and hone existing expertise but who are not interested in another degree.

The distance plant breeding programme offers a range of courses, from MS degrees with or without a thesis to PhDs and online continuing education courses for professionals. The Soil and Crop Sciences Department itself provides 12 separate courses in plant breeding and related plant sciences that can be completed wholly online, with further courses in related fields being available through other university departments.

IMPACT
Distance PhD student Johnny Cason, for example, is based in Stephenville, Texas, and has carried out a productive dissertation project on drought-tolerant peanut species. Cason is a Research Associate with Texas A&M AgriLife Research and the work he has conducted in pursuit of the qualification will not only further his professional development, but may also offer a much-needed solution for peanut growers in dry climates.

At the national level, students such as Matthew Rhine are also engaging in distance PhD courses with TAMU. Rhine, a Research Associate at the University of Missouri Fisher Delta Research Center, had been searching for a suitable PhD programme for some time – but had limited options due to his professional commitments and family. With TAMU’s help, he is now studying soybean breeding and how it can be improved across different soil types.

Vishal Saitwal and Koti Konda are distance learning PhD students based in India’s Aurangabad and Hyderabad regions respectively. Saitwal is focused on the task of optimising India’s cotton strains for new mechanical harvesting methods, and is supported by Smith – a cotton breeding expert. Konda, on the other hand, is concerned with imbuing the country’s rice strains with resistance to the brown plant hopper, a particularly destructive insect species.

Additional information about the TAMU Distance Plant Breeding Program can be found at www.scsdistance.tamu.edu, or by contacting Dr Wayne Smith at cwsmith@tamu.edu or LeAnn Hague, Distance Education Coordinator, at leann.hague@ag.tamu.edu

www.internationalinnovation.com