

Although the world's population continues to grow, the amount of land available to grow crops for food remains the same.

Who can help us grow more and “better” crops to keep feeding the world?

The Plant Breeder!

Meet J.D. Rossouw,
a Plant Breeder at Monsanto
in Gauteng **BSc (Agric),
MSc (Plant Breeding/Genetics),
currently enrolled for PhD
(Plant Breeding/Plant Pathology)**

...the biggest challenge of the job:

“Commercially-speaking, to stay ahead of the competition!”

...career satisfaction:

“To stand alongside a farmer who has experienced the benefits of one of our products.”

... a common misconception:

“That I’m a farmer!”

What does J.D. do?

J.D.'s job is to develop new, improved types of maize that produce more and better cobs, cope better with stress and can resist diseases that infect the maize. He does this by selecting maize plants with these characteristics and breeds them. This results in the genetic “recipe” of the plants being changed and improved. Once these “hybrids” have been fully tested, which can take many years, they are sold to farmers.

Most plant breeders specialise in one crop only, and in J.D.'s case, this is maize. To do his job he has to understand the science behind plant breeding, the growing conditions of maize in South Africa, the agricultural market and the needs of those who use or eat the maize. He also has to predict how these factors will change in the next ten years.

What do I need to be a plant breeder?

Characteristics: Passion for working outdoors; patience, as it can take five to seven years before a hybrid is ready to be sold; an ability to work systematically, independently and in teams

Important school subjects: Biology, Mathematics, Physical Science

Qualifications:

BSc – Natural Sciences/Biological and Life Sciences/Microbiology/Molecular and Cell Biology/Agriculture or similar

Where can I get a job as a plant breeder?

Private, commercial seed companies (international and local) such as Monsanto, Pannar, Pioneer, Syngenta and various smaller companies, public research institutes and universities

Related careers:

Plant Pathologist, Plant Geneticist, Plant Biotechnologist, Genomics

