



'Ontmoet' Tredou, die jongste toevoeging tot die Landbounavorsingsraad (LNR) se reeks koringkultivars. Dr Ian Heyns, koringteler van LNR-Kleingraan op Stellenbosch, beskou Tredou as die toekoms van LNR-kultivars aangesien dit oor uitstekende opbrengspotensiaal beskik.

Improved wheat yields on the horizon

A brand-new market and demand driven wheat cultivar called Tredou will be released to market in 2018 by the Small Grain campus (SG) of the Agricultural Research Council (ARC) in Stellenbosch. Tredou is believed to be a vast improvement on current cultivars.

This new development is expected to perform extremely well in regions of the Western Cape since it has been adapted very well to the unique challenges of this area. It will offer a dynamic increase in yield and is regarded to be the way forward and the first step in a new phase of cultivar development as far as small grain cultivars in South Africa are concerned, says Dr Ian Heyns, Wheat Breeder at Small Grain.

Yield increase is imperative

According to Dr Heyns the primary goal of wheat cultivar development at the ARC is to improve yield levels. The Small Grain campus is also focussing on increased disease resistance which, according to him, remains a firm challenge.

Dr Heyns views the storage characteristics of wheat cultivars and its ability to retain nutritional value during storage periods as important. "It is, however, an attribute which is studied by several researchers in South Africa. The current market demand is almost purely on high-

er yields, and other attributes are secondary."

Prof Toi Tsilo from Small Grain is proud of the work done by the institute. He confirms that it takes six to ten years to establish a new cultivar before it can be released to the market. "We are however using some of the new methods, including high phenotyping and genomics technologies, as well as marker assisted selection and biotechnology, that contribute to shorter periods in breeding for new cultivars and releasing them to the market nowadays."

He says it is imperative to consider specific challenges of farmers and the market, such as diseases and predominant insect pests unique to the specific region which the new cultivar is intended for, and to find the genes resistant to these challenges. Also important are environmental constraints, including drought and soil restraints, such as soil minerals.

Breeding material is then sampled from anywhere in the world to make crosses which may result into one cultivar with the most possible higher yield and resistance traits which may be presented for evaluation and registration.

Market is the driver

"We always do research as demanded by the market with results that will trans-

late into value for farmers," says Prof Tsilo. "Cultivar development is mainly aimed at increased yields to support sustained profitable wheat production. We also aim for good quality as demanded by the milling and baking industries and we give farmers information on production to minimise their costs and increase their profit."

He confirms that millers and bakers mainly want a product that can easily absorb water and offers the potential to deliver a good dough strength. "So, we look very closely at a variety of parameters required by the industry and by the end consumers who need a good, nutritional and longer lasting bread and flour products."



Wheat farmers in the Western Cape may look forward to the all-new Tredou wheat cultivar to be released in 2018. According to breeders, Dr Ian Heyns (left) and Prof Toi Tsilo (right), this is a direct result of the search for higher yields. Photographs: Jan Greyling

Cultivars to be proud of

In the competitive field of basic food production, South Africa certainly holds an advantage compared to some of its competitors. Dr Heyns referred to local wheat cultivars offering excellent bread making quality compared to their equivalents elsewhere. "There is always room for improvement and we are continually looking for new germplasm all over the world, but we are competing very well with wheat cultivars around the globe. We make use of expertise available at ARC and our universities.

"Looking at the improvement of wheat yields on a year on year comparison internationally, it currently stands at 0,75% to 1% on average, while our average in South Africa is at almost 1,5%. From my viewpoint South Africa is competing very well with the rest of the world," says Dr Heyns. 🍷

Meer agtergrond oor Tredou:

Groeiperiode:	Medium-lank
Strooisterkte:	Goed
Uitloopweerstand:	Goed
Roesweerstand:	Matige weerstand teen blaar- en stamroes
Opbrengspotensiaal:	Uitstekend
Poeieragtige meeldou:	Vatbaar
Bakgehalte:	Uitstekend