Mr Chairman, esteemed delegates to the International Cereal Rusts and Powdery Mildews Conference, ladies and gentlemen, good morning. It is indeed a wonderful and uplifting experience to see so many of the world’s top plant pathologists, breeders and other scientists, meeting in South Africa in such numbers and in such a special environment this week.

In a 2017 FAO Report, this UN body warned that the different wheat rusts, as they mutate, are making further advances in Europe, Africa and Asia, perhaps the Americas and Australasia too, and we all know how potentially devastating these diseases can be to untreated and susceptible crops. Your reporting and deliberations this week are of critical importance to global food security and the welfare of society in general.

My sincere thanks and appreciation for the invitation to address you today, and to share some thoughts with you on some of the developments in South African cereal industries, as well as on the challenges we face. I will then also bring these developments and challenges into a global context. So we will explore both local and global context.

**Local context**

The first challenge that we face, especially for wheat, is that the area under cereal grain production has declined significantly over the past 15 years. It is especially the dryland wheat production in the summer rainfall region that has shown an 80% decline in area harvested over this period, while there have also been declines in dryland wheat hectares in the Winter Rainfall Region and wheat under irrigation. The areas cultivated are however expected to stabilize at current levels over the next ten years.
The reason for the decline is due to a lack of profitability and competitiveness, with oil and protein seed crops, such as soybeans and canola, as well as maize in the Summer Rainfall Region (SRR), displacing wheat. Barley acreages have however been stable and are expected to increase marginally over the next ten years.

Due to the decline in area harvested, wheat production has also declined over the past 16 years, resulting in South Africa, while basically always a nett importer of wheat, importing more than what it produced in 2010, 2015 and 2017. Currently South Africa on average imports roughly 50% of its total demand or consumption of roughly 3.4 million tonnes, and essentially battles to be competitive on the global market due to low productivity.

If we analyse wheat production costs in selected countries, including Argentina, Australia, Canada, Germany, Russia, Ukraine, the UK, USA and South Africa, it becomes clear that our South African production costs per tonne of grain produced are just simply too high and above the international sample space average. As Europe, and specifically Eastern Europe (Ukraine and Russia), have become more efficient through mechanization and production efficiency, it has put pressure on not only South Africa’s wheat industry, but also on the industries in the USA, Argentina, and others. The cost of spraying plant protection chemicals in the Winter Rainfall Region (WRR) is especially high, and reports received over the weekend indicated that up to 4 sprays have already gone on the crop as farmers seek to protect their very good yield potential this season.

By contrast, barley production has increased by nearly 40% to levels close to 350 000 tonnes over the past ten years, primarily due to a more stable pricing mechanism instituted by the big buyers/brewers and better genetics/varieties, amongst others. Production growth projections are also positive for the next ten years, even to the point where production may surpass demand by 2027.

South Africa’s oats production is around 55 000 tonnes, of which 90% is produced in the Western Cape. Consumption is around 77 000 tonnes, and South Africa is thus a nett importer of oats. In 2017, South Africa imported 24 429 tonnes of oats. Of this total, 99 percent was from Australia. Global oats production is currently not in good shape. The 2018/19 production is set to decline by 3 percent from last year to 23 million tonnes, according to data from the International Grains Council. This is due to expected lower yields in the EU region, Canada and Russia primarily.
Global context

Projections are notoriously difficult and risky as there are so many factors at play, not least of which are policy considerations in South Africa. So you may have heard of a new land policy called “expropriation without compensation” which is currently being considered by the ruling party and Parliament and creates considerable policy uncertainty in our country. Nevertheless, we need to be cognisant of international cereal price trends and how these will impact on future production and profitability. Both for wheat and barley, prices in US$ per tonne have declined over the past 10 years, and are expected to move sideways over the next ten years as stocks are expected to get somewhat tighter.

Currently global grains (maize, wheat, barley & other grains) stocks are slightly tight, but still at comfortable levels. A marginal decline in world total grains production is envisaged in 2018/19, with overall supplies seen down 1% due to tighter opening stocks and a decline in the global wheat harvest on the back of drought in parts of Europe.

Global wheat stocks have become tight due to a decline in production in the current production season. Amid unseasonably hot and dry weather in a number of regions, the world’s 2018/19 wheat production is forecast to fall by 5% y/y, to 716 million tonnes.

Global maize stocks are also tight due to solid growth in consumption on the back of a lower wheat supply. Despite the increase in global maize production, the stocks are still estimated at a five-year low, down by 14% y/y due to growing consumption on the back of lower wheat production. The reason is that maize is being used as a substitute in wheat areas.

To conclude, a few concerns from industry to your esteemed Conference:

The first major concern for industry is the issue of biosecurity as it relates to cereal production. The intensification of agriculture, the globalisation of agricultural trade and global warming/climate change are contributing significantly to the more rapid spread of plant diseases specifically. It is especially the introduction of rust pathogens, and their race mutations, that have and continue to increasingly pose a major threat to competitive production.
The second major concern is increasing resistance of pathogens to fungicides and other biocidal products. I happened to participate in a Bayer Corn and Soybean Symposium in Frankfurt a couple of years ago, where I also had the opportunity to visit their extensive research facilities, and was struck by their focus on integrated pest and disease management, given their strategic approach that chemicals *per se* are not silver bullet solutions.

A third major concern is developments around much stricter criteria for the registration of ag-chemicals, as indicated by the proposed hazard-assessment versus risk-assessment approach for the registration of so-called Endocrine Disruptors by the European Union (EU), as well as increased focus on bringing down Maximum Residue Levels (MRL’s) allowed on agricultural and food products in the important drive for improved food safety.

The fourth concern is the increased use of Sanitary and Phyto-sanitary (SPS) measures in trade relations, and even the abuse of such measures for trade protectionist purposes. We need a strong science-based approach and formal arbitration processes through the WTO to resolve the increasing incidence of disputes.

To this end I wish you well in your important deliberations and endeavours to find and develop solutions to the challenges we face. May you all find great benefit and stimulation from these, your 15th ICRPM Conference proceedings.

Thank you very much and best wishes.