CropLife
SOUTH AFRICA SUID-AFRIKA

2019 GM / BIOTECH CROP STATUS
27 AUGUST 2019

Background

- So why am I here talking to you today?

- Hanlie, on behalf of the organizing committee, kindly provided me the opportunity to introduce & promote CropLife SA

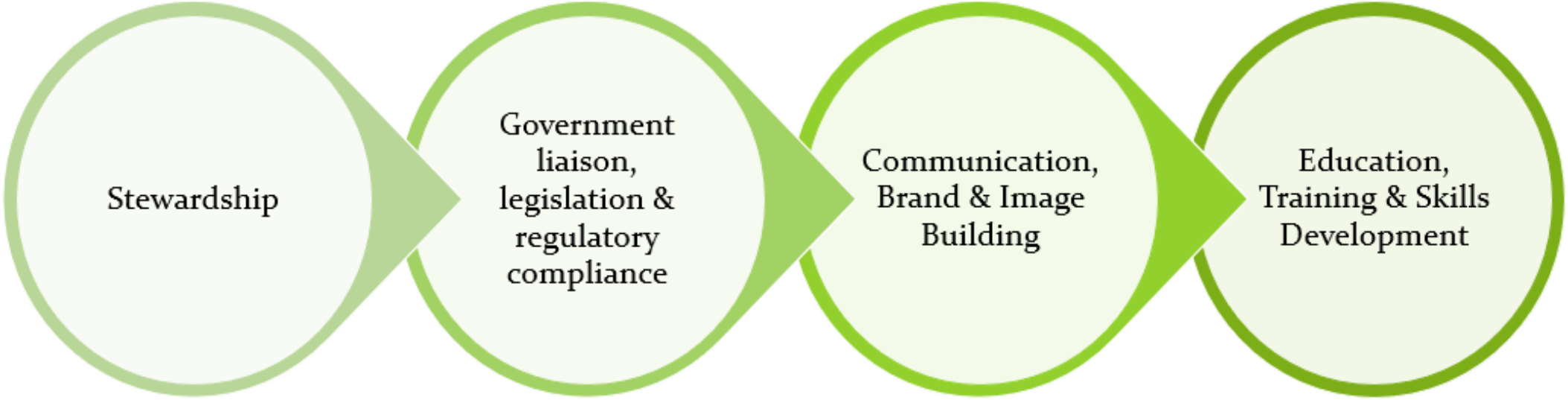
- In return, I agreed to present to you the South African chapters of the recently released ISAAA report on GM / Biotech Crops & to facilitate a discussion thereof

Agenda

- Overview of the new CropLife SA structure
- CropLife & Integrated Pest Management (IPM)
- 2019 GM/Biotech crop status – South African Chapters
- Discussion

New Initiatives in 2019

- As part of the restructuring conducted by the ExCo in 2018, a new team was put in place as of September 1st 2018
- the new-look CropLife South Africa association is based on 4 foundation pillars, namely:
  - Stewardship
  - Government Liaison and Regulatory Compliance
  - Communication, Brand and Image Building
  - Education, Training and Skills Development



WHO WE ARE – The Team

Rodney Bell
Chief Executive Officer

Gerhard Verdoorn
Operations and Stewardship Manager

Elriza Theron
Marketing and Communications Manager

Fikile Nzuza
Regulatory and Government Liaison

Nadia van Niekerk
Financial Administrator

Chana-Lee White
Agri-Intel Manager

Luigia Steyn
Agri-Intel MRL Consultant

Susan Ramaila
Office Assistant

WHO WE ARE - 1

- CropLife South Africa:
  - is a not-for-profit Association
  - is funded primarily by payment of annual membership fees
  - strives to be the voice of all CropLife SA members in front of the media, with regulatory bodies and wider society, to name but a few.
  - represents
    - the majority of:
      - responsible manufacturers, suppliers and distributors of crop protection and public health solutions
    - We represent them in:
      - the agricultural, public health and consumer sectors
  - CropLife has the ultimate goal of ensuring sustainable and affordable food production and food security in South Africa
- CropLife South Africa is not a statutory body, meaning:
  - it has no legal powers to register plant protection products
  - it has no legal powers to act against illegal activities in the industry

HOW WE DO IT

CODE OF CONDUCT

STEWARDSHIP

- Host and maintain Agri-Intel
- Publish various publications, compendiums and brochures
- Publish guidelines for resistance management
- Publish coded products for integrated fruit production
- Manage pesticide waste through guidelines for obsolete stock and empty containers
- Organise and host a large number of industry related forums

- Offer the CLSA Basic Crop Protection Course
- Offer the CLSA Aerial Applicators Course
- Manage the CPD Programme: Technical training and business-related training
- Offer training in all aspects of safety, health and environment
- Offer training material in responsible use of pesticides
- Offer guidance and oversight in responsible marketing and sales at retail level

- Update members about changes in local and international regulatory requirements
- Support members with regulatory compliance e.g. GLP, GHS, labelling, transportation and warehousing
- Draft guidelines for regulatory compliance e.g. field trials and dossier submission
- Support members with product registration & renewal dossier quality control
- Investigate misconduct and support law enforcement

- Be the undisputed industry voice for matters pertaining to crop protection and public health
- Ensure brand visibility and continuity at industry related events
- Add value through regular and relevant member communication (newsletters, industry updates, direct engagement, etc.)
- Advocate responsible use of all products produced by the plant science industry

RACs, Forums & Working Groups

- Resistance Management
  - Herbicide Resistance
  - Fungicide Resistance
  - Insecticide Resistance
  - Rodenticide Resistance
- Regulatory Affairs Forum
- DAFF Liaison Forum
- Stewardship Forum
- Pesticide Application Forum
- Pollinator Health Forum
- Small Pack Forum
- Complementary Products Forum
- Seed Treatment Working Group

CropLife & IPM

- CropLife International has a great Integrated Pest Management (IPM) position & when one considers the key principles of IPM, you will see that our member companies strive to supply plant protection solutions based on multiple tools
- “Pest management is only one aspect of overall crop production that needs to be considered by a grower. Pest management cannot be considered on its own - overall management of the crop by the grower affects pest management, and *vice versa”*
- “The first requirement of IPM is to grow a healthy crop, which is more able to withstand the effects of pests than a weak crop or one under stress”
- “A healthy crop also has a higher yield **potential** and is more able to repay any costs of pest management activities”
- “Such a healthy crop described above is also more able to withstand pest attack and damage before yield loss occurs”
- “Pest management to prevent or reduce yield loss is coordinated with these practices to obtain economic protection of the crop from pest injury or loss, while minimising hazards to human health, other crops, animals and the environment”

CropLife & IPM

- “Remember: Pest management does not increase the potential of a crop to produce a high yield …
- … it only protects the crop against yield losses”
- Biotechnology is another tool, along with traditional plant protection products, available to CropLife members in their offering to help growers realise the yield potential of their crops
- Traditional plant protection products & biotechnology are therefore not competing with each other, but rather are complementary to each other in todays’ integrated crop production efforts aimed at providing food security globally

ISAAA brief no. 54-018

CropLife SOUTH AFRICA SUID-AFRIKA

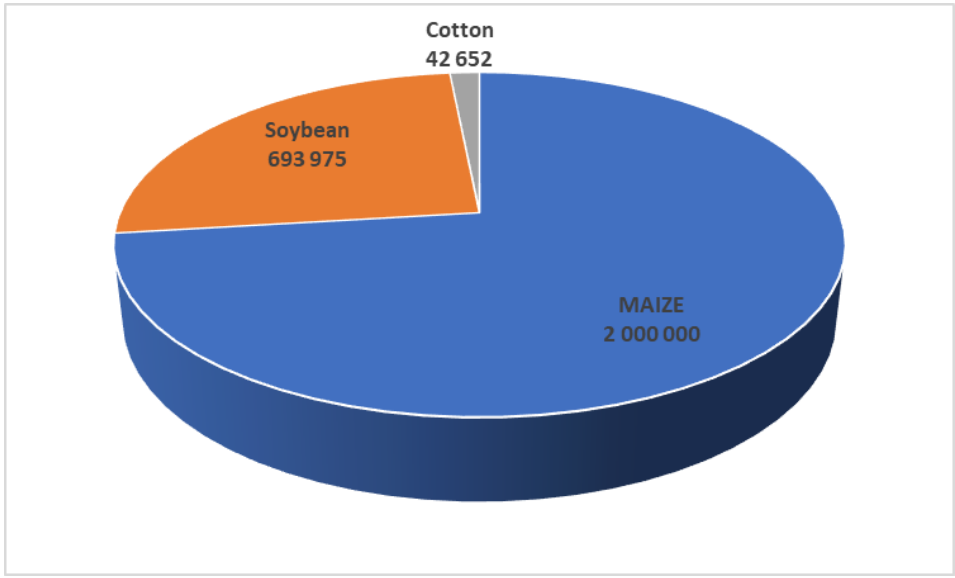
Summary of 2018 South African chapters from ISAAA brief no. 54-018

2018: South Africa growing conditions

- Since 2014, climatic conditions in South Africa have been particularly tough on agriculture due to below average rainfall having been received in most of the key growing areas
- This has impacted on the physical hectares of key row crops planted each season, plus also impacting the sustainability of perennial crops (like fruit orchards)
- So the growing conditions of the past few years must be remembered when looking at the status of biotech crops in the country in the recent past

2018: South Africa

- Approximately 2.73 million hectares of biotech crops were planted in the 2018/19 summer season
  - Maize: 2 million hectares 73% of biotech crops planted
  - Soybean: 0.64 million hectares 25 % of biotech crops planted
  - Cotton: 0.043 million hectares 2 % of biotech crops planted



- If one assumes that total plantings for all 3 crops in the country during the same period was 3.07 million hectares, then 2.73 million hectares of biotech crops shows biotech adoption for these three crops during the time frame was averaging 89%

- The impact of the drought must be remembered – total plantings of the 3 crops was down compared to previous seasons & for a dominant crop like maize, any reduction in plantings in key agronomic areas will impact the overall percentage of biotech adoption

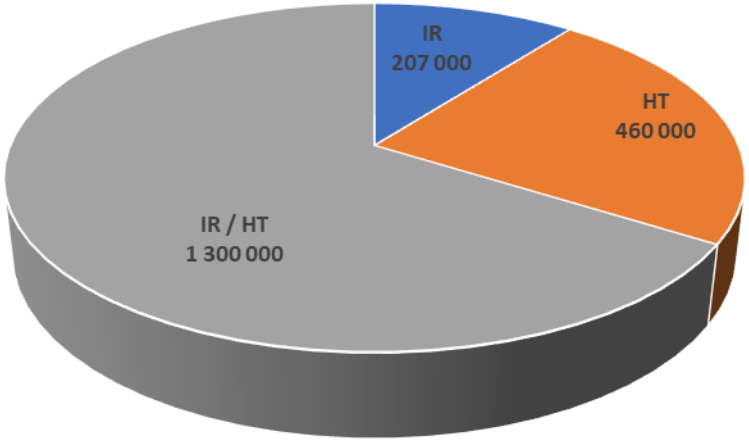
2018: South Africa – biotech maize

- Approximately 2 million hectares of biotech maize was planted in the 2018/19 summer season
  - Insect resistant (IR): 0.21 million hectares 11 % of biotech maize planted
  - Herbicide tolerant (HT): 0.46 million hectares 23 % of biotech maize planted
  - Stacked IR / HT: 1.3 million hectares 66 % of biotech maize planted

- This translates into an adoption of 87% for biotech maize in SA

- The 2016/17 summer season saw for the first time that single trait HT hybrids sold more than single trait IR hybrids – the trend continues

- The long-term trend in maize production indicates SA is producing more maize from few hectares of land – the continued introduction of new technologies to the local crop production industry (including biotechnology) certainly contributes to this situation



2018: South Africa – biotech soybean

- After initial plantings in 2001, approximately 0.731 million hectares of biotech soybean were planted in the 2018/19 SA summer season
- This represents a decrease of 6% from previous season
- Decrease due to large yield the previous season & subsequent lower price outlook affecting farmers' planting decision
- Approximately 0.694 million hectares were planted to biotech soybeans – which equates to 95% adoption of biotech soybean in SA
- Local industry challenges include
  - competitors in the USA, Brazil & Argentina
  - New technology introduction lag locally
  - Outbreak of *Sclerotinia spp* disease in key soybean growing areas resulting in heavy yield losses

2018: South Africa – biotech cotton

- Initial plantings of biotech cotton started in SA in 1998 – insect resistant (*Bt*) cotton being the first
- Approximately 0.043 million hectares of biotech cotton were planted in the 2018/19 SA summer season
- This represents an increase of 14% from previous season due to favourable World prices & a renewed interest in the crop
- Biotech cotton accounted for 100% of the plantings
  - 95% consisting of stacked IR / HT
  - 5% HT for refugia
- Outlook is for continued trend of increasing global prices & demand for natural fibres, translating into increased hectares of cotton grown in SA

2018: South Africa – summary

- Based on 2018 figures, South Africa is ranked as the World's 8th largest producer of biotech crops
  - 87% adoption of biotech maize
  - 95% adoption of biotech soybean
  - 100% adoption of biotech cotton
- Industry continues to invest in the development of new technologies in a range of crops & fruit varieties & there is continued convergence between traditional plant protection products & biotech in all its forms
- Biotech & traditional plant protection tools need to used in a complementary manner in order to achieve food security
  - *Sclerotinia spp* on biotech soybeans a great example
  - The arrival of Fall Army Worm in Africa is another example of the value of biotech tools

2018: South Africa – discussion

- Thank you for listening and now it is time for a discussion on the report ……..