



## **THE FUTURE OF PLANT PROTECTION IN SOUTH AFRICA**

**Critical overview and futuristic  
perspectives**

**Dr Gerhard H Verdoorn**

**© THIS PRESENTATION IS THE PROPERTY OF CROPLIFE SA AND MAY NOT  
BE ALTERED OR REPRODUCED IN ANY FORM**

**Regulatory framework with a direct effect on current and long-term availability of plant protection solutions (pesticides) in South Africa**

**The Fertilizers, Farm Feeds, Agricultural Remedies and Stock remedies Act, 1947 (Act No. 36 of 1947)**

- Directly regulates registration (legalization) and availability of pesticides

**The Hazardous Substances Act, 1973 (Act No. 15 of 1973)**

- Categorizes certain pesticides as Group Ib HSs and exercises “extra” control over the availability of pesticides

**Genetically modified organisms Act, 1977 (Act No. 15 of 1977)**

- Directly regulates registration and availability of GMOs that have inherent properties to protect themselves against plant pest and herbicides used for weed control

**The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)**

- Indirectly regulates the sales and use of most pesticides

**The National Environmental Management Act, 1998 (Act No. 107 of 1998)**

- Directly regulates the import of substances listed under the Rotterdam and Stockholm Conventions

## Secondary influences on the current and short-term availability of plant protection solutions (pesticides) in South Africa

- Import country regulators and importers of agricultural commodities from South Africa directly influence which pesticides may be used by food and fiber producers on export commodities even if pesticides are registered (=legal) in South Africa
- EU Green Deal with mirror clauses aims to eliminate large percentage of classic pesticides all over the world but does not take climate, biology and economy into account
  - Activists lobby against pesticides availability and use worldwide
- Consumer sentiments against certain pesticides influence regulator decisions about pesticides worldwide and is very strongly influenced by social media driven by activists
- Poor knowledge of (1) chemistry, (2) toxicology and (3) “cause and effect” principle catalyse negative sentiments about pesticides
- Misuse and unlawful activities with pesticides by end users catalyse negative sentiments about pesticides

## The potential survival rate of pesticides in South Africa

### Current trends in South Africa

- Hazardous Chemical Agent regulations of 29 March 2021 of the OHS Act brought a new focus to the true hazards of pesticides and re-classified many pesticides into higher hazard classes compared to the hazard classes of their active ingredients due to the GHS classification system
- 23 August 2023 agricultural remedy regulations brought GHS criteria into the hazard classification of pesticides and placed restrictions on the use of certain pesticides
  - ✓ CMR classification, high toxicity, irreversible environmental effects
  - ✓ Restricted pesticides may only be used by Pest Control Operators
    - ✓ Certain pesticides virtually eliminated from the market
- Government is challenged by activists for maintaining registration of “highly hazardous pesticides” in South Africa which prompt government to consider drastic measures over pesticide regulation
- Potential survival rate of approximately 30% of pesticide active ingredients is very slim in the medium-term while as much as 70% are also in the firing line

### Paradigm shift is required – a few radical personal thoughts

- **Integrated Pest Management must be upscaled drastically in all plant production**
  - ✓ Many of the IPM tools are not (or have never been) deployed by producers
    - Total reliance on synthetic chemicals must be seriously reconsidered
  - ✓ Micro-biological remedies where available must be integrated into plant production systems
  - ✓ Macro-biological remedies must be integrated into plant production systems
- **Plant breeding must be re-focused on resilient cultivars instead of just best yielding cultivars**
- **Soil health must be addressed immediately with better cultivation practices and carbon enrichment as a principal focus**
  - ✓ Soil health chemicals are of no use in denuded soils
- **Producers must fine tune into climate and weather, and link it to pest, disease and weed outbreak potential**
  - ✓ Too many incidents of mass plant pest and disease outbreaks that could have been prevented

### Radical regulatory changes are necessary

- Efficacy of registering new technologies in South Africa is of strategic importance
- ✓ Many biological technologies do not require the rigorous scrutiny that is required for synthetic chemicals
  
- Maintaining some of the “highly hazardous pesticides” is critically important for resistance management and to address sudden pest, disease or weed outbreaks but:
  - ✓ A permit system should be developed for limited period use of such remedies
  
- ✓ Take the regulatory focus away from efficacy and zoom in on pragmatic, scientific based hazard/risk evaluation and management
  - Market forces will determine whether a pesticide maintains its tenure in plant production
  
- ✓ Plant science industry must invest in research, technology development and scientific skills development for the future
  - South Africa lost all its development in the synthetic chemical arena
  - South Africa has a fairly good macro and micro-biological development programme

### Introspection – difficult questions to pose to society

- ✓ Who triggered the outcry against pesticides and bio-technology?
- ✓ Do people really believe that harsh chemicals (synthetic and natural) will survive the public opinion?
  - ✓ Is plant breeding and plant protection not supposed to follow accelerated Darwinism?
  - ✓ Take the regulatory focus away from efficacy and zoom in on pragmatic, scientific based hazard/risk evaluation and management
- ✓ Is government not supposed to invest in the rapid development of new technologies for plant production in order to replace harsh chemicals?
- ✓ Why don't scientists take back control of plant protection technologies so that the correct information is transferred to growers and consumers?

[gerhard@croplife.co.za](mailto:gerhard@croplife.co.za)

082 446 8946

AMEN

