

CROP CIRCULAR

CropLife 
SOUTH AFRICA SUID-AFRIKA

ISSUE 14
2022



IN THIS ISSUE

- SEMINAR: Responding to the climate crisis with biotechnology
- CRISPR – The latest breeding technology explained
- Promises of genome editing in sustainable food production



CONTRIBUTE

We are always looking for news, photographs or event updates from our members. Please forward your contributions to elriza@croplife.co.za

WELCOME

Welcome to the latest issue of the CropLife SA Crop Circular. At this time of the year, our winter rainfall season is well underway and plans for the summer rainfall season are gaining momentum.



Rod Bell
Chief Executive Officer
CropLife South Africa

Reports from the winter rainfall areas are that rainfall has been sporadic – OK to good in some areas, but well below average in others. Regarding the supply of products, the general feedback from members is that apart from a few products with tight supply for the winter rainfall crops, supply has been adequate, albeit sometimes ‘just in time’. The forecast for the summer rainfall season is that there should be ample supply of products for the start of the summer rainfall season plantings, but some supply constraints may be experienced mid-season. The reasons for any supply issues remain as: tight global availability of some active ingredients, limitations on shipping availability for importation of products and below par operations at the country’s ports.

On the regulatory front, efforts to work with government to solve the backlog issue in the short-term and create a new and sustainable regulatory process in the mid-term, continue to take a huge effort from the CropLife SA team. Whilst efforts continue to find workable solutions via cooperation with government, your ExCo continuously considers all possible actions that could result in meaningful improvements.

The current CPD programme is well under way and at the time of writing this welcome note, 3 participants have already achieved certified Crop Adviser status, with an additional 59 already well on their way with more than 70% of the required CPD points being earned. The CPD points being earned by participants to date are via a combination of in-house trainings (with the associated verification test) plus successful completion of the online training modules. Well done to those who have recognised the need for personal professional improvement and for embracing the CropLife SA CPD programme.

I was invited to participate at the recent Agricultural Business Chamber (AgBiz) Congress 2022 and it was very encouraging to hear from so many different role players in the agricultural industry. However, it was concerning to learn of the huge difficulties being experienced by growers when it comes to exporting their produce and the presentation by Eskom’s CEO André de Ruyter was quite sobering. On the latter, the subsequent announcements by government to tackle the country’s power needs align very well with the possible scenarios outlined by de Ruyter during his address to the AgBiz Congress 2022.

The possible negative impacts on South African agriculture and economy from the EU “Green Deal” were discussed and combined with the information on the subject shared during the CropLife SA CropCon 2022, more debate is required on this subject. Agriculture needs to have a strong message sent to the EU regarding the negative unintended consequences that the EU Green Deal is likely to have on SA farmers so that some of these effects can be mitigated. To this end, CropLife SA plans to have a workshop on the subject during November 2022; further details will be shared with CropLife SA member companies, grower associations and other role players in the coming weeks.

It is with regret that we learnt that our valued colleague Fikile Nzuza (Regulatory & Government Affairs Manager) will be leaving us for a new career opportunity outside our industry. The CropLife SA team wishes Fikile well with her new opportunity and will announce Fikile’s replacement as soon as possible.



CONTENT

01

Welcome message from our Chief Executive Officer

03

SEMINAR: Responding to the climate crisis with biotechnology



04

You may have missed



05

Biotechnology: The way forward for agriculture in South Africa

05

Suide van Namibië kry eerste keer in dekadde sneeu



05

Will the **SAIF** bolster government regulatory functions?

06

CRISPR – The latest breeding technology explained



06

Help CropLife SA om ons land se plase skoon te hou



07

Is your crop adviser compliant?



07

Comply with regulations that govern these technologies

08

Promises of Genome Editing in Sustainable Food Production



08

Knaagdierskade op werktuie kan só verhoed word

09

WHAT'S IN A NAME?

AVCASA

09

CropLife SA participates in panel discussion at Agbiz congress 2022

09

VIEWPOINT: The Pesticide Hazard Conundrum





SEMINAR: RESPONDING TO THE CLIMATE CRISIS WITH BIOTECHNOLOGY

There are many examples of extreme weather events in recent years/ times. One only needs to look at the daily news headlines to know how the catastrophic impact of climate change is being felt in Africa and various other parts of the globe with reports of record-breaking temperatures, extreme drought and freak floods occurring with increased frequency and intensity. There is a growing sense of urgency and a call for drastic action to implement response measures that are kinder to the planet.

We live in a world where food insecurity is already a reality for 800 million people. As extreme climatic conditions persistently worsen, its impact on agricultural productivity will be detrimental, causing even greater yield losses. But our agrifood system is not an innocent bystander when it comes to evolving climate scenarios, it also stands accused of being a significant contributor of global greenhouse gas emissions. For agriculture to be responsive to the climate challenge, it will take a range of climate smart solutions to strike a balance between innovations that not only help to mitigate the effects of adverse climatic conditions on our food production systems, but that also reduce the environmental footprint of farming, while ensuring that we have enough food to feed the world's rapidly growing population.

In response to these looming challenges, plant

science innovations are utilising various digital and technological tools to provide solutions that offset the threats to food production efficiencies and outputs. Modern biotechnology tools such as genetic engineering and genome editing are leading the way as scientists and plant breeders consistently work to deliver new crop varieties that are not only higher yielding, but also resistant to relevant abiotic stresses such as drought, salinity, and flooding, and crops that are better adapted to threats from pests and diseases.

The widescale adoption of genetically modified (GM) crops both in South Africa and abroad has gone some way to moderate the environmental footprint of modern farming practices. Scientific evidence indicates that the deployment of GM crop technology in farmers' fields is changing agriculture's carbon footprint in a good way. By helping farmers to adopt more sustainable practices, such as reduced tillage, it has led to improvements in soil health due to better carbon sequestration, and with decreased burning of fossil fuels, the emissions footprint has also significantly declined.

While the merits of biotechnology tools such as GM crops and newer genome editing applications continue to be a subject of much debate, one cannot overlook that these tools provide significant opportunities for agriculture to continue on a

path that supports sustainable production of safe, affordable and nutritious food in a way that is both good for the environment and the climate in particular. Ensuring that the full potential of these technology tools is successfully realised to benefit farmers, consumers and the environment in the face of adverse climates, will not be determined by scientists alone, instead overcoming societal hurdles and regulatory barriers will also need to be addressed.

Climate change issues are increasingly becoming part of our everyday conversations and concerns, which is why CropLife South Africa and the USDA's Foreign Agricultural Service (USDA-FAS) jointly hosted a hybrid seminar on 23 August 2022 in Pretoria, to discuss how biotechnology is responding to the climate crisis. The panel of experts explored topics relating to the use of biotechnology tools for the development of climate resilient crops, its potential to help farmers and ensure food security. Insights were presented on how the local bio economy is supporting climate innovations in agriculture, and farmer experiences with the integration of biotech into farming practices were shared, as well as exploring the opportunities and constraints with biotech crops in addressing environmental stewardship and farming impacts.

You can view the seminar [here](#).



YOU MAY HAVE MISSED

A friendly reminder to all CropLife SA members that the bulk email communications sent out by the team are also loaded on the member portal in the “Notices” section. We recommend logging in at least once a week to see if you may have missed anything important.

Congratulations: CropLife SA member employees complete the first post graduate diploma in medical toxicology

Four of CropLife SA member company staff members have passed the first offered post graduate diploma in medical toxicology through Stellenbosch University. Congratulations to Dr Andre Laas, Magda Saaiman, Langalihle Ntshangashe and Jaqueline Tiltmann for their achievements. Applications for the next course close on 30 September, click [here](#) for more information.

CPD Compliance - Congratulations

The CropLife SA team would like to congratulate Dewald Pieters (Inteligro), Lionel Schulze (Laeveld Agrochem) and Deon Mare (Laeveld Agrochem) for already obtaining 100% compliance with the CPD cycle which is only ending next year. Read the email [here](#).

CropLife SA - Staff Update

It is with regret that I need to inform you that our treasured colleague Fikile Nzuza, Regulatory & Government Affairs Manager, will be leaving the association to take up a new career opportunity outside our industry. Read the email [here](#).

PRESENTATION: Subtrop Chemicals Workshop - 14 July 2022

The SA Subtropical Growers Association's (Subtrop) Plant Protection Products Workshop for 2022 was held virtually on Thursday 14 July. The aim of this annual event is to share with industry the latest crop-pest combinations where growers of avocado, mango and litchi have limited or no plant protection solutions. You may have participated in this event yourselves, but if not, please find in attachment the presentation used during the event. Read the email [here](#).

Phasing out PET and code 7 plastic pesticide packaging

Attached please find a proposal about phasing out PET and code 7 plastic pesticide packaging. Read the email [here](#).

REMINDER: GHS Labels & SDS Submissions to meet the September 2022 deadline

This is a reminder to please submit your GHS classified labels and SDS' to the Registrar's office as soon as possible. The deadline for compliance with GHS is the 29th September 2022, we have 3 months to meet this deadline. Read the email [here](#).



BIOTECHNOLOGY:

The way forward for agriculture in South Africa

AgriOrbit – June 2022

CropLife SA is a non-profit organisation that represents the plant science industry. The organisation recently held a media day to inform the press of advancements made in the field of biotechnology. Chantel Arendse from CropLife SA opened the day with a brief overview of the plant biotechnology portfolio that was introduced in 2020. The portfolio serves to support member companies such as Syngenta, Bayer, Corteva and BASF, focusing on communication, promotion of and creating awareness regarding biotechnology. The portfolio also encourages stewardship through the development of plant biotechnology resource materials. Read the full article [here](#).



KYK! Suide van Namibië kry eerste keer in dekade sneeu

Joanie Bergh

Landbou.com – Junie 2022



In 'n onlangse onderhoud wat die radio omroeper Ina van Tonder met dr. Gerhard Verdoorn, bedryfsbestuurder van CropLife SA, gevoer het, het hy gesê daar kan 'n voordeel wees vir boere aan hierdie ysige weer.

Volgens hom kan dit bydra tot die vernietiging van sprinkaaneiers. Die eiers word beskerm in 'n eierpakkie en lê to 30 mm onder in die grond.

Lees die volledige artikel [hier](#).

LUISTER: RSG Landbou

Junie 2022

Dr. Gerhard Verdoorn van CropLife SA het tydens die RuVasa-kongres gewaarsku dat daar 'n toename in die gebruik van ongeregistreerde veemedisyne is. Carin Venter gesels met hom hieroor

Luister na die onderhoud [hier](#).

Will the SAIF bolster government regulatory functions?

Mariana Purnell

SA Grain – July 2022

The Strategic Agricultural Input Forum (SAIF) and its members participated in a joint workshop in April 2022, on the topic of public-private partnerships in search of best practices in the regulatory environment.

As the driving force of interventions and actions in this regulatory space, SAIF chairperson De Wet Boshoff, shared his experience and journey in working directly with the registrar of Act No. 36 of 1947, and moving towards reaching a public-private partnership (PPP) between the SAIF and the Department of Agriculture, Land Reform and Rural Development (DALRRD).

Regulation enables government to achieve its policy objectives. According to the Organisation for Economic Co-operation and Development (OECD), regulatory policy is achieved through the use of regulations, laws and other instruments to deliver better economic and social outcomes. But in South Africa, amid renewed indications of the agricultural sector and government's shared commitment to the success and growth of agriculture, the sector has been struggling to cope with the regulatory environment. Regulation has impacted the ability of businesses to create innovative products or services to serve their communities and employ people.

Read the full article [here](#).

CRISPR – The latest breeding technology explained

Chantel Arendse – Lead: Plant Biotechnology
AgriAbout – July 2022

What is CRISPR?

When it comes to the latest breeding technology, many of us have probably heard of the acronym CRISPR, one of the better-known tools in the world of genome editing. CRISPR-Cas, which stands for Clustered Regularly Interspaced Short Palindromic Repeats and its associated protein called Cas, work together like a pair of molecular scissors to directly edit the native genomes of various organisms, plants, animals, and even humans, in a very precise and predictable manner. The efficiency and precision of CRISPR-Cas tools are enabling scientists to accelerate the breeding process by allowing desired characteristics and improvements to be achieved in a fraction of the time normally required with conventional breeding practices. The versatility of its use and widespread applications suggest that the technology is poised to deliver solutions to feed the world, protect the planet and mitigate climate change. But let's take a step back and look at the origins of the CRISPR-Cas discovery. Read the full article [here](#).

Help CropLife SA om ons land se plase skoon te hou

Die Pad Saam - Julie 2022

Wie sal ooit die eerste plastieksak vergeet nadat ons gewoon was aan koerantpapier en bruinpapiersakke vir kruideniersware? Dit het die wêreld soos 'n storm getref, maar die skade is eers veertig jaar later ontdek toe die mens se algemene omgewingsbewustheid deur aktiviste aangewakker is.

Strande vol kleurvolle plastieksakke, seevoëls waarvan die ingewande met plastiekstukkies verstop is, plastieksakke in seeskilpaaie en selfs plastiekrommel wat oral oor die land rondwaai, is maar enkele van die nagevolge van die wanbestuur van een van die mens se maakselfs. Tog is die wêreld waarin ons leef ondenkbaar sonder plastiek: Ons gebruik dit vir koeldrankbottels, medisyne, kosmetiese middels, stoorgeriewe vir vars en verwerkte kos en natuurlik ook as verpakking vir plaagdoders en saad.

Dit is nuttig, sterk, lig en relatief goedkoop, maar dit kan die aarde erg besoedel as dit nie korrek bestuur word nie.

Moet ons dan as gevolg daarvan wegdoen met plastiekplaagdoderhouers en -saadsakke en weer van die ou staaldromme en dik papiersakke gebruik maak? Nee, dit is onnodig, want feitlik alle plastiek wat vir plaagdoderverpakking en saadsakke gebruik word, is herwinbaar en kan soveel as sewe keer weer in die vervaardiging van ander kommoditeite gebruik word. Ons moet net die landbousektor se aandag trek en almal oortuig om plase skoon te maak van alle oorskotplastiek, insluitend besproeiingspype, skadunette, plaagdoderverpakings, saadsakke, kratte en ander plastiekware. Lees die volledige artikel [hier](#).

Is your crop adviser compliant?

Elriza Theron

Marketing and Communications Manager

SA Grain – July 2022

By now many people are familiar with the CropLife SA continuous professional development (CPD) programme, especially those producers who have committed themselves to buying from a compliant crop adviser. CropLife SA drives this programme to ensure that participants of member companies continue to engage in industry learning activities that maintain and enhance their professional competency and knowledge. The programme aims to advance the status of being merely a transactional sales agent, to becoming a crop adviser, acting in the interest of the environment, community and the producer.

The CPD cycle runs every year from May to the following April, and during this 12-month cycle, participants need to acquire a certain number of points in three respective categories to be compliant. The type of training that qualifies for points range from very technical topics and product related information to safety and legal aspects of the industry, good agricultural practices and stewardship, to name a few. In addition to the training offered by member companies, industry experts, educational institutions and approved training partners, CropLife SA provides a number of online learning modules that can be completed directly on the system and in their own time. These points are allocated immediately, meaning their progress can be monitored throughout the year. Read the full article [here](#).



Comply with regulations that govern these technologies

Elriza Theron

Marketing and Communications Manager

SA Grain – August 2022

It truly is an exciting time in agriculture with the advent of new technologies aimed at ensuring that all necessary resources are optimised for farmers in the ultimate goal of sustainable food production. The use of drones is one such tool and can help farmers collect vital information about their crops, helping them understand which crop protection products and nutrients they need, in what amount, and where and when to use them. They also show promise as a way of applying crop protection products for those that are registered for use by aerial application. Because of targeted application, drones can deliver the active ingredient exactly to where it is needed on the plant and it also uses up

to 90% less water, which is an important benefit for a water-scarce country such as South Africa.

As tempting as it may be to just jump in and start using the available tools, farmers and operators must remember to comply with the regulations that govern these technologies. Requirements for the use of drones for the aerial application of pesticides are embedded in Act No. 36 of 1947 and Act No.13 of 2009. Read the full article [here](#).

Genome editing expands potential to feed the world

Chantel Arendse

Lead: Plant Biotechnology

SA Grain – July 2022

As global policy conversations continue to shine the spotlight on sustainability, the scope of these discussions also focus on agriculture, particularly on how to transform our food systems with more sustainable methods of production. The growing demand to produce enough food to feed billions of people, is a challenge that farmers will continue to face in the coming years, especially with looming threats triggered by climate change. Furthermore, there is a growing expectation that these substantial increases in yield be achieved through sustainable farming practices that optimise the use of natural resources like soil and water, use less agricultural inputs, while preserving the environment and extracting the most out of existing agricultural land.

Innovations in plant science have significantly contributed to transforming the efficiency of food production since the mid-20th century. However, this is not going to be enough to help us meet our global food security and sustainability targets as required by the United Nation's Millennium Development Goals. So how then do we produce more with less? Thankfully, our food systems can take advantage of decades of innovation and hard work from farmers, agronomists, plant breeders, scientists and others who, through combined efforts, continue to deliver new technologies to help make agriculture more sustainable. One of these ground-breaking technologies is genome editing, an advanced breeding tool for both plants and animals, which is being touted for its enhanced potential to feed the world, protect the planet and mitigate climate change.

Read the full article [here](#).



Knaagdierskade op werktuie kan só verhoed word

Dr Gerhard Verdoorn

Operations and Stewardship Manager

SA Graan – Augustus 2022

Alle diere benodig 'n paar dinge om aan die lewe te bly: kos, water, skuiling, woonplek, teel- of broeiplek en wegkomplek as die nood dreig. Knaagdiere wat met mense saamleef, soos byvoorbeeld bruinrotte, swartrotte en huismuise is oor eeue heen aangepas om al hulle lewensbehoefte in mensgemaakte omgewings te vind, terwyl ons inheemse knaagdiere hulle lewensbehoefte selde of ooit by ons vind.

Die algemeenste knaagdiere wat in menslike omgewings pla, is bruinrotte en huismuise. Swartrotte, wat ook as dakrotte bekend staan, is skaars in Suid-Afrika. Dit is haas ondenkbaar om 'n plaaswerf te vind waar daar geen muise en rotte is nie, en as daar boonop 'n stoor is, is daar beswaarlik beter woonplek vir bruinrotte en huismuise.

Dierevoeding, boumateriaal, trekkers, implemente, druppelende krane, hout en rommel wat in en om plaasstore te vinde is, is soos 'n magneet vir rotte en muise. Hou maar net die Jack Russell-hondjie dop as hy of sy die stoor inspekteer: Die stertjie swaai so vinnig soos 'n windpompwiel vanweë die reuk van rotte en muise wat jagtogte belowe.

Lees die volledige artikel [hier](#).

WHAT'S IN A NAME?

Elriza Theron

Marketing and Communications Manager

SA Grain – August 2022

We often receive queries from people who want to sign up for the “AVCASA course” or who would like to become “AVCASA-accredited”, but this is problematic for a number of reasons, the most obvious being that the entity AVCASA does not exist anymore. AVCASA (Association of Veterinary and Crop Associations of South Africa) used to represent the South African Animal Health Association (SAAHA) on the animal science side, and CropLife South Africa on the plant science side. A few years ago, the two associations each became their own entities and AVCASA was dissolved.

Since then, all the projects, courses, programmes etc. pertaining to plant science, fall under the CropLife SA banner, including the Basic Crop Protection course, which was previously known as the “AVCASA course”. While attempting to rectify the terminology, a few other misconceptions came to the fore which need clarification as provided below.

Read the full article [here](#).

CropLife SA participates in panel discussion at Agbiz congress 2022

CropLife CEO, Rod Bell, participated in a panel discussion at the Agbiz congress this year entitled “Creating an enabling environment for innovation”. He was joined by Dr. Boitshoko Ntshabele, Director: Biosecurity (DALRRD), Dr. Lukeshni Chetty, General Manager (SANSOR) and Mpumi Mkhonza, Registrar: GMO Act (DALRRD), where he discussed the impacts that the current slow regulatory processes in South Africa could have on South African farmers in light of the looming EU Green Deal. Watch the discussion [here](#).

VIEWPOINT: The Pesticide Hazard Conundrum

Dr. Gerhard Verdoorn

Operations and Stewardship Manager

CropLife South Africa

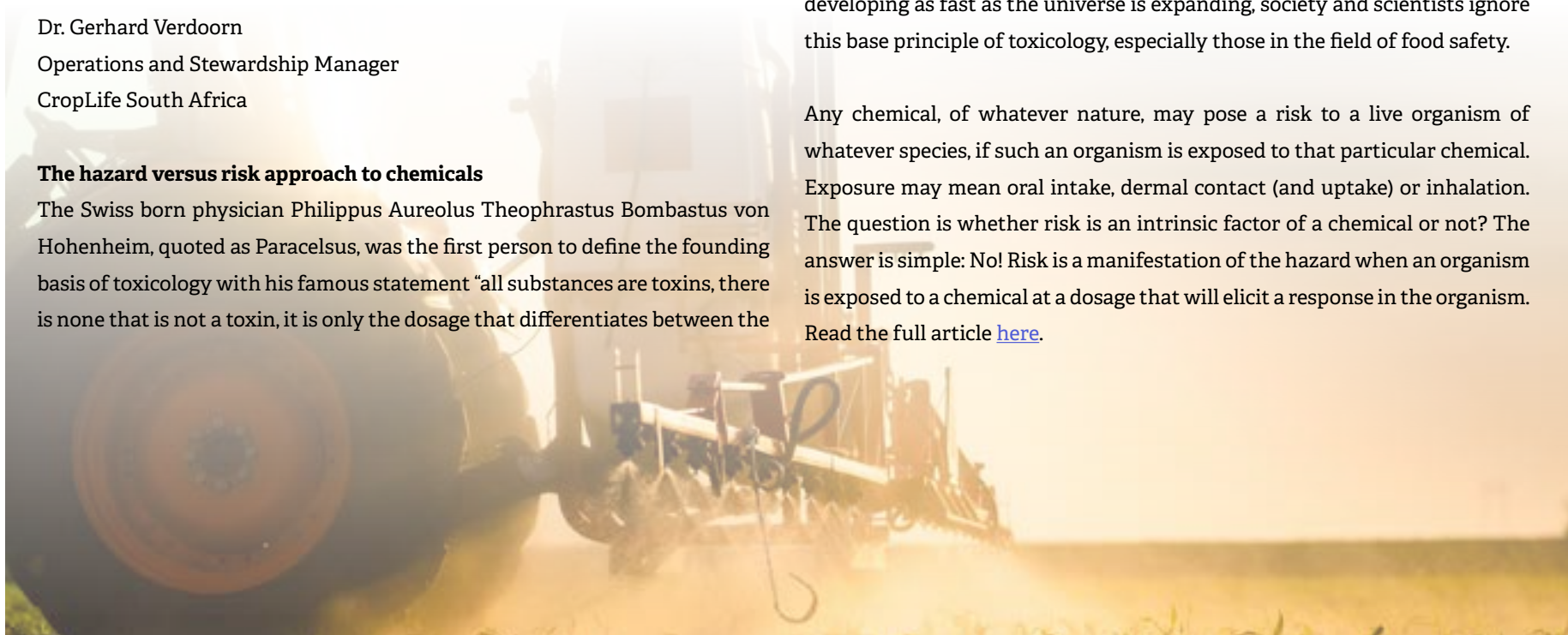
The hazard versus risk approach to chemicals

The Swiss born physician Philippus Aureolus Theophrastus Bombastus von Hohenheim, quoted as Paracelsus, was the first person to define the founding basis of toxicology with his famous statement “all substances are toxins, there is none that is not a toxin, it is only the dosage that differentiates between the

therapeutic and toxic properties of a substance.”

This philosophy of his emanated from his defence of using some inorganic substances as medicines while his peers regarded them as too toxic for human beings. The Latin phrase *Sola dosis facit venenum* says it all: only the dose makes the poison. Yet, in the modern day and age where science is developing as fast as the universe is expanding, society and scientists ignore this base principle of toxicology, especially those in the field of food safety.

Any chemical, of whatever nature, may pose a risk to a live organism of whatever species, if such an organism is exposed to that particular chemical. Exposure may mean oral intake, dermal contact (and uptake) or inhalation. The question is whether risk is an intrinsic factor of a chemical or not? The answer is simple: No! Risk is a manifestation of the hazard when an organism is exposed to a chemical at a dosage that will elicit a response in the organism. Read the full article [here](#).



CONTACT

If you have any queries, would like to become a member,
or if you have general feedback, we would love to hear from you.
Please contact any member of our team:

CropLife SA Office	087 940 4168	info@croplife.co.za
Rodney Bell - Chief Executive Officer	066 273 6027	rod@croplife.co.za
Gerhard Verdoorn - Operations & Stewardship Manager	082 446 8946	gerhard@croplife.co.za
Chantel Arendse - Lead: Plant Biotechnology	082 992 0952	chantel@croplife.co.za
Elriza Theron - Marketing & Communicatons Manager	072 443 3067	elriza@croplife.co.za
Nadia van Niekerk - Financial & Membership Administrator	072 940 5591	nadia@croplife.co.za
Chana-Lee White - Agri-Intel Manager	072 298 9389	chana@croplife.co.za
Luigia Steyn - Agri-Intel MRL Consultant	060 508 6369	luigia@croplife.co.za
Liezel Cronje - Agri-Intel Administrator	072 122 5964	liezel@croplife.co.za

