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CropLife
SOUTH AFRICA



The Crop Protection Industry & Applicable Regulations Course

Stellenbosch University, in collaboration with CropLife SA and various industry experts, is proud to present this course, which provides an overview of the crop protection industry and aims to establish a minimum standard of knowledge for people active in the industry. This course provides training in basic plant physiology, integrated insect, weed, disease management, management of nematodes and legal and safety aspects pertaining to the crop protection industry.

The following individuals will benefit from the course:

- Crop advisors and employees of companies that operate in the crop protection industry
- Pest Control Operators
- Producers, farm managers and industry members who have a good command of English
- New entrants to the crop protection industry (students, first time employees and young agricultural professionals.)

NQF level: 5
Admission requirements: Matric
Certificate type: Competence
Credits: 30
Language of instruction: English only
Mode of delivery: Online only
Date: Registration is twice a year (dates to be communicated).
Course duration: 6 Months
Price: R10500

For more information and registration:
agrishortcourses@sun.ac.za • 082 921 1945

Chair in Plant Health

Course Presenters



Dr Keanu Martin

Dr Keanu Martin is a lecturer and researcher in the Department of Horticultural Science at Stellenbosch University. His teaching focuses on plant morphology, anatomy, crop production and applied plant physiology. His research interests include plant growth regulators, pollination biology and crop production practices in horticultural crops, with current work involving deciduous fruit and cut flowers.



Charl Deacon

Charl Deacon is an Entomologist at the Plant Disease Clinic (PDC), Department of Plant Pathology, Stellenbosch University. Previously from an insect conservation background, his current work focuses on pest insect identification on a variety of crop types, following both traditional taxonomic methodologies and modern molecular methodologies. He is a Fellow of the Royal Entomological Society, and received the Stellenbosch University Postdoctoral Research Fellow of the Year award in 2025.



Prof Pia Addison

Prof Pia Addison is an Associate Professor at Stellenbosch University, where she has worked since 2004, with a focus on applied entomology and sustainable agricultural systems. She obtained her PhD from KwaZulu Natal University in 2004, and previously worked at the Agricultural Research Council (Infruitec-Nietvoorbij) from 1996 to 2004.



Dr Charné Viljoen

Charné is a lecturer in the Department of Agronomy at Stellenbosch University, specialising in weed science. Her research centres around alternative weed management strategies aimed at combating herbicide-resistant weeds, with a strong emphasis on sustainable agricultural practices. She holds a PhD in Agronomy, where her doctoral work explored the use of cover crops to suppress weed growth.



Prof Adele McCleod

Adele received BSc (Agric) and BSc (Agric) Hons degrees from the University of Pretoria, majoring in plant pathology. She started her teaching and research career as a senior lecturer at Stellenbosch University Department of Plant Pathology in 2004, which changed to an associate professor position in 2015.



Dr Sonja Coertze

Sonja Coertze joined Stellenbosch University (SU) in 1998 after completing her MSc studies. She is responsible for teaching phytobacteriology and bacterial plant diseases at the Department of Plant Pathology. She currently also manages the Plant Disease Clinic (PDC) in the Department of Plant Pathology.



Prof Johnnie van den Berg

Prof Johnnie van den Berg manages the Integrated Pest Management (IPM) research group at North-West University, South Africa. He has 35 years of experience in applied ecological research and management of pests of annual row crops. His areas of expertise include Insect Resistance Management (IRM) in Bt maize cropping systems, and management of maize, soybean, sunflower and grain sorghum pests.



Sheila Storey

Sheila Storey was the owner of Nemlab (Pty) Ltd, a nematode diagnostic laboratory. She obtained her BSc (Agric) in 1981 majoring in entomology and plant pathology and then obtained an MSc (Agric) in Nematology. After a sojourn as researcher in Potchefstroom and Elsenburg as well as lecturing at UWC she established Nemlab in 1987. Sheila registered with the South African Council for Natural Scientific Professions in 1987 and has been a member of the Nematological Society of Southern Africa since 1981.



Bekker Wessels

Bekker Wessels is the CEO of ProCrop (Pty) Ltd. ProCrop is an independent company providing consultation in the field of crop protection to growers as well as several other institutions involved in primary agriculture.

Course Presenters



Gideon van Zyl

Gideon has been part of ProCrop as a technical consultant since 2016, advising ProCrop's client base and other interested parties in matters retaining to plant disease control. Gideon is a Plant Pathologist and researcher, with specific focus on application technology theory and implementation, one of the most important factors in optimal disease control. Gideon has multiple authorships and co-authorship on the topic of spray application.



Phillip Rebel

Phillip is responsible for managing and conducting field research projects, providing technical advice to clients within his areas of expertise, presenting industry training workshops and short courses, and researching innovative technologies and methodologies relevant to crop protection. He also supports the broader activities of ProCrop by providing technical expertise and assistance wherever required.



Quade Sing Jam

Quade Sing Jam is Stewardship Lead at CropLife South Africa, where he promotes the safe, responsible and sustainable use of crop protection products. With expertise in compliance, logistics, hazardous goods, pesticide stewardship and waste management, he has trained more than 7,000 people, led obsolete pesticide removal initiatives, and works closely with industry, government and farmers to strengthen stewardship and regulatory compliance across South Africa.



Roleen la Grange

Roleen holds an MSc in Entomology from the University of Pretoria, specialising in plant-insect interactions. She began her career compiling registration dossiers for conventional chemical pesticides, and later also supported the development and registration of semiochemical-based crop protection products. Since 2023, she has served as Regulatory Portfolio Manager at CropLife South Africa.



Dr Gerhard Verdoorn

Dr Gerhard Verdoorn is the Producer Responsible Organisation (PRO) Manager at CropLife South Africa and Director of the Griffon Poison Information Centre. Holding a PhD in Synthetic Organic Chemistry and a post-doctoral fellowship from Tel Aviv University. He has published more than 80 peer-reviewed scientific papers, authored numerous conservation articles, and remains a sought-after speaker, trainer and media commentator on pesticide stewardship, wildlife poisoning and environmental management.



Dr Erik Eksteen

Dr Erik Eksteen has been involved in weed science for the past 40 years in various roles. He started in 1984 as researcher in the Department of Agriculture. In 1986 he joined a multinational company in the R&D team doing herbicide development trials. In 1994 to 2023 he joined another multinational company as Sales Technical advisor to the distributors in the Western Cape, East Africa and Middle East. In 2007 he finished his PhD Agric with the topic of "Ryegrass resistance against Paraquat"



Prof Johan Potgieter

Johan holds a degree in Agriculture (Animal Production), as well as BSc Honours and MSc qualifications in Wildlife Management and Ecology. Throughout his career, he has been actively involved in organised agriculture and was elected on several occasions to represent the Cornelia Farmers' Association at the Free State Agriculture annual congress. He has also completed additional qualifications, including Business Management, and earned his CropLife certification.



Prof Gerhard Pietersen

Prof Gerhard Pietersen is a South African plant virologist and senior researcher at Patho Solutions in Wellington. He holds a BSc in Botany and Microbiology from the University of the Witwatersrand, an MSc from the University of Pretoria, and a PhD in Microbiology from Wits.



Shelley Johnson

Shelley Johnson is a research associate for Hortgro, an organisation representing the South African deciduous fruit industry. She is based at the University of Stellenbosch, and her focus area, since 2006, has been phytosanitary entomology. As part of the Hortgro Market Access team, she works closely with regulatory bodies, including the National Plant Protection Organization, on phytosanitary issues and export standards for deciduous fruits.

Course Presenters



Prof Nick Kotze

Prof Nick Kotze holds a PhD and MBA from Stellenbosch University. He has more than 20 years of top management experience in the private sector before he joined SU in 2014 as the Chair in Plant Health at the Department of Agronomy. This course is presented under the leadership of the Chair in Plant Health.



Lorette de Villiers

Lorette de Villiers is the Short Course Coordinator for the Faculty of AgriSciences at Stellenbosch University. She serves as the course coordinator and primary contact person for this programme. She holds a BSc degree in Genetics and a Postgraduate Certificate in Education (PGCE)

New intakes for 2027 will start in January 2027, with two intakes per year from 2027 onward.

The course consists of online learning with video recordings of lectures, PowerPoint presentations, and quizzes.

After each module, students must complete a compulsory quiz and achieve a minimum pass mark of 50%. Each student will have three attempts to pass each quiz. All quizzes must be successfully completed in order to obtain the Certificate of Competence.



Theme 1: Plant structure and function

Module	Name	Presenter(s)
1.1	Plant morphology: cells, tissues and organs	Dr Keanu Martin
1.2	Buds, shoots and plant architecture	
1.3	Leaves and canopy function	
1.4	Flowers, fruit and seeds	
1.5	Roots, stems and whole-plant transport	
1.6	Primary growth and tissue differentiation	
1.7	Secondary growth and modified plant organs	
1.8	Hormonal control of growth and tropisms	
1.9	Hormonal control II: gibberellins, cytokinins, ethylene and ABA	

Theme 2: Plant pests and diseases

Module	Name	Description	Presenter(s)
2.1	Basic introduction to applied Entomology I	Basic identification	Prof Johnnie van den Berg Dr Charl Deacon
		Type of feeding & symptoms	Prof Johnnie van den Berg
2.2	Basic introduction to applied Entomology II	Life cycles	Prof Johnnie van den Berg
		Reproduction and development (including temperature and DD models)	Dr Charl Deacon
2.3	Principles of IPM	Four pillars of IPM	Prof Johnnie van den Berg
		Monitoring and thresholds	Dr Charl Deacon
		Cultural and physical control	Prof Johnnie van den Berg/ Dr Charl Deacon
		Biological control	Dr Charl Deacon
		Plant resistance	Prof Johnnie van den Berg
		Semiochemicals and SIT	Dr Charl Deacon
		Chemical control (market access & residues)	Bekker Wessels
		Resistance management	Bekker Wessels
2.4	Biotechnology in IPM	Including IRM in Bt crops	Prof Johnnie van den Berg
2.5	Phytosanitary issues in deciduous fruit	Including post-harvest control	Shelly Johnson
2.6	Case studies in row crops	Soil pest management/sunflower, soy bean & maize crops	Prof Johnnie van den Berg
2.7	Case studies in perennial crops	And examples from potato/tomato	Bekker Wessels
2.8	Plant parasitic nematodes in major crops		Sheila Storey
2.9	Plant diseases management		Bekker Wessels, Phillip Rebel, Prof Adele McCleod, Gideon van Zyl, Prof Gerhard Pieteren, Dr Sonja Coertze
2.10	Weed management, principles & practises		Dr Charne Viljoen, Dr Erik Eksteen, Johan Potgieter

Theme 3: Legal and Safety (Introduction to Crop Protection)

Module	Name	Description	Presenter(s)
3.1	Introduction to responsible use and stewardship best practice	Agricultural Data Storage & Transportation Emergency Response Plan Crop Protection Planning Mixing & Application Post Application & Sanitisation	Quade Sing Jam
3.2	Legal & safety	Legislation governing the registration, sale and use of agricultural remedies in South Africa, basic toxicology, hazard classification and communication, occupational health and safety, and international conventions.	Roleen la Grange
3.3	Container management and obsolete stocks		Dr Gerhard Verdoorn