DESCRIPTION

The Editors of *Crop Protection* especially welcome papers describing an interdisciplinary approach showing how different control strategies can be integrated into practical pest management programs, covering high and low input agricultural systems worldwide. Crop Protection particularly emphasizes the practical aspects of control in the field and for protected crops, and includes work which may lead in the near future to more effective control. The journal does not duplicate the many existing excellent biological science journals, which deal mainly with the more fundamental aspects of plant pathology, applied zoology and weed science. *Crop Protection* covers all practical aspects of pest, disease and weed control, including the following topics:

- Abiotic damage
- Agronomic control methods
- Assessment of pest and disease damage
- Molecular methods for the detection and assessment of pests and diseases
- Biological control
- Biorational pesticides
- Control of animal pests of world crops
- Control of diseases of crop plants caused by microorganisms
- Control of weeds and integrated management
- Economic considerations
- Effects of plant growth regulators
- Environmental benefits of reduced pesticide use
- Environmental effects of pesticides
- Epidemiology of pests and diseases in relation to control
- GM Crops, and genetic engineering applications
- Importance and control of postharvest crop losses
- Integrated control
- Interrelationships and compatibility among different control strategies
- Invasive species as they relate to implications for crop protection
- Pesticide application methods
- Pest management
- Phytobiomes for pest and disease control
- Resistance management
- Sampling and monitoring schemes for diseases, nematodes, pests and weeds.

The editors of *Crop Protection* invite workers concerned with pest, disease and weed control to submit suitable contributions on any topic falling within the aims and scope of the journal.

AUDIENCE

Research workers, project planners, commercial producers.

IMPACT FACTOR

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ABSTRACTING AND INDEXING

Review of Plant Pathology
EMBiology
Elsevier BIOBASE
Agricultural Engineering Abstracts
Biotechnology Research Abstracts
Chemical Abstracts
Helminthological Abstracts
Horticultural Abstracts
Plant Breeding Abstracts
Field Crop Abstracts
Review of Applied Entomology
Irrigation and Drainage Abstracts
Soils and Fertilizers
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Index to Scientific Reviews
Index to South African Periodicals
Risk Abstracts
Science Citation Index
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EDITORIAL BOARD

Chair Editor
S.N. Wegulo, University of Nebraska-Lincoln Department of Plant Pathology, Lincoln, United States of America
Crop pathogens such as fungi, oomycetes, bacteria, viruses, other microbes and nematodes.

Editors-in-Chief
J. R. Lamichhane, French National Institute for Agriculture, Food and Environment (INRAE), Castanet Tolosan, France
Plant Pathology, Systems Agronomy, Soil Microbial Ecology, Integrated pest management, Biological control, Decision support systems, Modeling
M. T. Rahman, Government of Western Australia Department of Primary Industries and Regional Development, Perth, Australia
Insect Biology & Ecology, Behavior, Population Demography, Insecticide Toxicology, Integrated Pest Management, Insecticide Resistance Management, Biological Control, Post-Harvest Disinfestation
F.P.F. Reay-Jones, Clemson University College of Agriculture Forestry and Life Sciences, Clemson, South Carolina, United States of America
Invertebrate crop pests including insects, mites and molluscs. Vertebrate crop pests including mammals and birds. Knowledge and technology transfer in crop protection. Integrated Pest Management in Field Crop Systems
C. Zhang, Chinese Academy of Agricultural Sciences, Beijing, China
Weed Biology and Management, Herbicide Resistance and Management, Herbicide Application.

Associate Editors
A. Canale, University of Pisa, Pisa, Italy
Insect behavior, Insect chemical ecology, Integrated Pest Management, Botanical insecticides, Pollinator insects, Biological control
K. Jabran, Nigde Omer Halisdemir University Faculty of Agricultural Sciences Department of Plant Production, Nigde, Turkey
Weed ecology, weed control, integrated weed management, weed control in major field crops, allelopathy for weed control, invasive weeds and climate change
E. Tzortzakakis, Hellenic Agricultural Organization DEMETRA, Athens, Greece

Statistical Consultant
C. Ritz, University of Copenhagen Department of Nutrition Exercise and Sports, København, Denmark

Editorial Board
X. Chen, Washington State University, Pullman, Washington, United States of America
Epidemiology and control of rusts, including cultural, chemical, and disease resistance, disease forecasting models, virulence, population structures, and functional genomics, genetics and molecular mapping of disease resistance genes, molecular mechanisms of plant-pathogen interactions.

C.A. Edwards, OHIO STATE UNIVERSITY, Columbus, Ohio, United States of America
Applied soil ecology and ecotoxicology

W. Elmer, Connecticut Agricultural Experiment Station, New Haven, Connecticut, United States of America
Management of Fusarium diseases, biological control on Soilborne plant pathogens, mineral nutrition effects on Soilborne plant pathogens.

L. Gatehouse, Plant and Food Research Palmerston North, Manawatu Mail Centre, Palmerston North, New Zealand
Molecular Biology, particularly of insects and plants. This covers straight molecular biology and extends to plant and some insect transgenesis together with the expression and analysis of the expression of introduced genes. I have some experience of Biochemistry but do not consider myself an expert. I have a blind spot with Statistics and am most definitely not an expert. I have worked with insect viruses, insect symbionts and insect cell lines for baculovirus expression and other studies. Most of my work has been in the field of Plant Insect interactions looking at this from both sides and usually with a focus on crop protection.

D.P. Giga, , Zimbabwe
Stored Products Entomology (crop storage).

L. Godfrey, University of California Davis, Davis, California, United States of America
Entomology, crop response, integrated pest management, cotton, rice, field crops

A.R. Hardy, Fera Science Ltd, York, United Kingdom

S. Hashim, The University of Agriculture Peshawar, Peshāwar, Pakistan
Molecular Biology, particularly of insects and plants. This covers straight molecular biology and extends to plant and some insect transgenesis together with the expression and analysis of the expression of introduced genes. I have some experience of Biochemistry but do not consider myself an expert. I have a blind spot with Statistics and am most definitely not an expert. I have worked with insect viruses, insect symbionts and insect cell lines for baculovirus expression and other studies. Most of my work has been in the field of Plant Insect interactions looking at this from both sides and usually with a focus on crop protection.

J. Katan, The Hebrew University of Jerusalem Department of Plant Pathology and Microbiology, Rehovot, Israel
Soil-borne pathogens, soil solarization, soil disinfestation.

S. Liu, National Pingtung University of Science and Technology, Pingtung, Taiwan
Crop eco-physiological adaptation to arid environment, field crops management, ecosystem sustainable designing and the role of human being in restoring and conserving the structure and function of integrated ecosystem especially in the arid and semiarid regions in northwest of China and other similar regions in the world.

G Mahajan, Punjab Agricultural University, Ludhiana, India

G.A. Matthews, Imperial College London Department of Life Sciences Silwood Park Campus, Ascot, United Kingdom
Pesticides and their application, entomology, integrated pest/crop management (IPM), crops esp Cotton, control of vectors of human diseases eg malaria but that has only to do with farmers', health and not crop protection.

P.D. Mitchell, University of Wisconsin Madison, Madison, Wisconsin, United States of America
Crop economics, production economics, farm management, risk management, insect management, weed management, resistance management, transgenic crops, biotechnology, agricultural sustainability metrics.

S.E. Naranjo, USDA-ARS Arid Land Agricultural Research Center, Maricopa, Arizona, United States of America
IPM of arthropod pests, Insect biological control, insect population ecology, sampling and economic thresholds, risk assessment in GM crops

R.E.L. Naylor, University of Aberdeen, Aberdeen, United Kingdom
O.M. Olanya, USDA-ARS Eastern Regional Research Center, Wyndmoor, Pennsylvania, United States of America
A. Ortega-Beltran, International Institute of Tropical Agriculture, Ibadan, Nigeria
Biocontrol of Aspergillus fungi, Screening for disease resistance, Tropical crops, Cereal crops, Integrated management strategies, Fungal population biology

C. Screpanti, Syngenta Crop Protection, Crop Protection Research Biology, Stein, Switzerland
Plant hormones and crop enhancement, Weed control, Soil pest control, Behavior of agrochemicals in soil, Rhizosphere signals, Plant phenotyping and remote sensing

K.W. Seebold, Valent USA, Lexington, Kentucky, United States of America
Soilborne plant pathogens – ecology and epidemiology (cotton and vegetable crops) Fungicide resistance and resistance management Integrated pest management Mycology Epidemiology and management of plant disease

P.C. Stevenson, University of Greenwich Natural Resources Institute, Chatham, United Kingdom
Natural Products Chemistry, Bioactive compounds from plants, Botanical Insecticides, Chemical Ecology, Pollination Biology

**J.C. Streibig**, University of Copenhagen Section for Crop Sciences, Taastrup, Denmark
Weed science and vegetation management.

**M.E. Tobin**, USDA-APHIS National Wildlife Research Center, Fort Collins, Colorado, United States of America
human-wildlife conflicts, wildlife crop damage, wildlife damage control

**P. Trematerra**, University of Molise, Campobasso, Italy
Applied entomology, integrated pest management, insect crop pests, stored product pests, pheromones and application technology, stored products protection.

**A. Van der Meulen**, Queensland Department of Agriculture and Fisheries, Australia

**J. van der Waals**, University of Pretoria, Pretoria, South Africa

**D. Wright**, Imperial College London Division of Biology - Silwood Park Campus, Ascot, United Kingdom
Entomology Plant nematology Integrated Pest Management Biological control Biopesticides Pheromones Multitrophic interactions
GUIDE FOR AUTHORS

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INTRODUCTION
The Editors of Crop Protection especially welcome papers describing an interdisciplinary approach showing how different control strategies can be integrated into practical pest management programmes, covering high and low input agricultural systems worldwide. Crop Protection particularly emphasizes the practical aspects of control in the field and for protected crops, and includes work which may lead in the near future to more effective control. The journal does not duplicate the many existing excellent biological science journals, which deal mainly with the more fundamental aspects of plant pathology, applied zoology and weed science. Crop Protection covers all practical aspects of pest, disease and weed control, including the following topics:

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Control of diseases of crop plants caused by microorganisms
Control of weeds and integrated management
Economic and social considerations
Effects of plant growth regulators
Environmental benefits of reduced pesticide use
Environmental effects of pesticides
Epidemiology of pests and diseases in relation to control
Food safety
GM Crops, and genetic engineering applications
Importance and control of postharvest crop losses
Integrated control
Interrelationships and compatibility among different control strategies
Invasive species as they relate to implications for crop protection
Pesticide application methods
Pest management
Resistance management
Sampling and monitoring schemes for diseases, nematodes, pests and weeds.

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Types of paper
Contributions falling into the following categories will be considered for publication:

• Perspectives in Crop Protection articles - The editors and members of the editorial board will invite commentary/insight papers on topical issues. Authors should contact the Editors-in-Chief with potential ideas. New data will not be published in commentary papers, but one table or figure to illustrate key points may be included (e.g., pesticide use or crop yield trends). The papers should range from 2000-3000 words or 6-8 double-line spaced manuscript pages (including references cited). The articles will be peer-reviewed with emphasis given to rapid publication.
• State of the art Review articles - Authors should contact the relevant Editor-in-Chief with proposals before submitting.
• Original high-quality Research papers - Preferably no more than 20 double-line spaced manuscript pages, including tables and illustrations.
• Short communications - These should not exceed 6-8 double-line spaced manuscript pages excluding references and legends. Results reported must be based on repeated trials or experiments. Submissions should include a short Abstract not exceeding 10% of the length of the communication and which summarizes briefly the main findings of the work to be reported. The bulk of the text may be in a continuous form but generally will follow the usual format that does not require numbered sections such as Introduction, Materials and Methods, Results, and Discussion. However, a Cover page, Abstract and a list of Keywords are required at the beginning of the communication and Acknowledgements and References at the end. These components are to be prepared in the same format as used for full-length research papers. Occasionally authors may use sub-titles of their own choice to highlight sections of the text.

• Correspondence - Authors should contact the relevant Editor-in-Chief with a proposal before submitting. Correspondence should focuses on the scientific basis for comment or disagreement with a recently published article in the Crop Protection journal, and be a maximum of 4-5 pages with double-line spacing, and a limited number of relevant citations. Correspondence will be peer-reviewed, but processed in a timely manner. Upon receipt of a correspondence that is critical of a previous article in Crop Protection, the author(s) of the previous article will also be invited to submit a rebuttal article; both the original letter and rebuttal letter will be published in the same issue.

• Crop Protection also publishes, book reviews, conference reports and a calendar of forthcoming events. Please contact one of the Editors-in-Chief.

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Author contributions
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Papers will be assigned to the Editors by subject:
Prof. J. Correll - Crop pathogens such as fungi, oomycetes, bacteria, viruses, other microbes

Prof. J.V. Cross - Invertebrate crop pests including insects, mites and molluscs. Vertebrate crop pests including mammals and birds, pesticides and crop protection agents application technology (spraying methodology)

Assoc.Prof. F.P.F. Reay-Jones - Invertebrate crop pests including insects, mites and molluscs. Vertebrate crop pests including mammals and birds. Knowledge and technology transfer in crop protection

Prof. J.C. Streibig - Weed science and vegetation management

Prof. S.N. Wegulo - Crop pathogens such as fungi, oomycetes, bacteria, viruses, other microbes and nematodes

Papers in agricultural economics and vertebrate control will be handled by one of the above Editors.

Repeat experiments. Repeat experiments. Manuscripts that report original research should not be submitted unless experiments have been conducted at least twice or, in the case of field experiments, relate to two seasons. In most cases, three or more replications will be necessary for appropriate statistical analysis. In exceptional circumstances, studies that do not meet these criteria may be acceptable, but the relevant Editor-in-Chief should be consulted prior to submission.

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Review process
All contributions are reviewed by two or more referees to ensure both accuracy and relevance, and revisions to the manuscript may thus be required. On acceptance, contributions are subject to editorial amendment to suit house style. When a manuscript is returned for revision prior to final acceptance, the revised version must be submitted as soon as possible after the author's receipt of the referee's reports. Revised manuscripts returned after four months will be considered as new submissions subject to full re-review.

PREPARATION
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References
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numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be
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State the objectives of the work and provide an adequate background, avoiding a detailed literature
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Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods
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Results
Results should be clear and concise.
Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

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**Acknowledgements**
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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