Journal of STORED PRODUCTS RESEARCH

Senior Editor C E DYTE Regional Editor C E DYTE PREVETY

P F PREVETY

# JOURNAL OF STORED PRODUCTS RESEARCH

Editor: C E DYTE, Pest Infestation Control Laboratory, Ministry of Agriculture Fisheries & Food, London Road, Slough, Berkshire, UK

This journal provides an international medium for the publication of original research results from laboratory and field studies dealing with the biology, ecology, physiology, behavior, taxonomy, genetics or control of the insects, mites, fungi, and other organisms associated with stored products. It also covers studies on the physical and chemical nature of the stored product environment which have relevance to these organisms and their control. The Journal of Stored Products Research reflects the increasing interest in the scientific problems of infestation in stored food and their relevance to the world food shortage.

Subscription Information Published quarterly (Volume 23) Annual subscription (1987) Two-year rate (1987/88)

DM400.00 DM760.00

FREE SAMPLE COPIES AVAILABLE ON REQUEST

#### A selection of papers

Microflora changes in peanuts (groundnuts) stored under modified atmospheres, D M WILSON et al. Response of malathion-susceptible and resistant strains of *Tribolium castaneum* (Coleoptera: Tenebrionidae) to a combination of <sup>60</sup>CO gamma irradiation and malathion, E ADEM & F L WATTERS. Orange-eye: a sex-linked recessive mutation in *Ephestia cautella* (Walker) (Lepidoptera: Pyralidae), Z S AL-HAKKAK et al.

Effects of three temperature regimes on rearing and biological activities of *Bracon hebetor* (Say) (Hymenoptera: Braconidae), M S H AHMED *et al.* 

The influence of relative humidity on larval development and energy content of *Galleria mellonella* (L.) (Lepidoptera: Pyralidae), G CHAUVIN & J CHAUVIN. Infestation of dried cassava (*Manihot esculenta* Crantz) by *Prostephanus truncatus* (Horn) (Coleoptera: Bostrichidae), R J HODGES *et al.* Moisture influence on fungal growth in black pepper, V P SREEDHARAN *et al.* The relationship between moisture content and equilibrium relative humidity of pig feed, S HENDERSON.

Alkaloid losses from the capsules of Papaver somniferum L. during kiln drying and storage under commercial conditions in Tasmania, P J HOFMAN & R C MENARY.

Advertising rate card available on request. Back issues and current subscriptions are also available in microform.

microform.

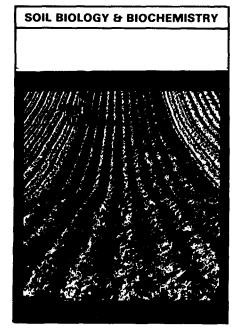
Prices are subject to change without notice. The Deutsche Mark prices shown are definitive and include postage and insurance. Please enquire for equivalent prices in other currencies.



# **Pergamon**

Headington Hill Hall, Oxford OX3 0BW, UK Fairview Park, Elmsford, New York 10523, USA

1C 16 7 86



# SOIL BIOLOGY & BIOCHEMISTRY

Executive Editor: J S WAID, Department of Microbiology, La Trobe University, Bundoora, Victoria 3083, Australia

Soil Biology & Biochemistry acts as an outlet for research studies on soil organisms, their biochemical activities, and their influence on the soil environment and plant growth. Original work is presented on quantitative, analytical and experimental aspects of such studies, providing a record of the progress of these studies throughout the world. The scope of the journal is wide and embraces accounts of original research into the biology, ecology and biochemical activities of all forms of life that exist in the soil environment. Relevant papers, as well as review articles, are welcomed for editorial consideration.

#### A selection of papers

Soil microbiology biomass estimates in soils contaminated with metals, P C BROOKES *et al.* 

Input of carbon to soil from wheat plants, H KEITH et al.

Vesicular-arbuscular mycorrhiza: influence on plant uptake of cesium and cobalt, R D ROGERS & S E WILLIAMS.

Estimation and decomposition pattern of the lignin component in forest humus layers, I KOGEL.

Differences in susceptibility of sclerotia of *Rhizoctonia solani* Kuhn to *Trichoderma* sp., T NAIKI.

Recycling of fecal pellets in isopods, T GUNNARSON & A TUNLID. Nodule distribution on legume roots, S C PUEPPKE. Sampling soil microfloras,

R M MAČDONALD. Microbial biomass and maize nitrogen uptake, K MULONGOY.

Subscription Information Published bi-monthly (Volume 19) Annual subscription (1987)

Two-year rate (1987/88)

DM660.00 DM1254.00

FREE SAMPLE COPIES AVAILABLE ON REQUEST

Advertising rate card available on request. Back issues and current subscriptions are also available in microform.

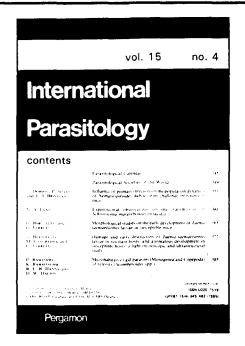
Prices are subject to change without notice. The Deutsche Mark prices shown are definitive and include postage and insurance. Please enquire for equivalent prices in other currencies.



# Pergamon

Headington Hill Hall, Oxford OX3 0BW, UK Fairview Park, Elmsford, New York 10523, USA

1C 2 8 86



The International Journal for Parasitology serves as a medium for communication of scientific contributions in the field of parasitology at an international level. It publishes original research papers dealing with parasites, parasitism and parasitic infection.

Other features include points in question (a forum for parasitologists), centenary biographical notes, obituaries, lists of parasitological societies throughout the world, and a parasitological calendar listing forthcoming meetings and symposia

related to parasitology. Relevant

papers are welcomed for editorial

Subscription Information
Published bi-monthly (Volume 17)
Annual subscription (1987)
Two-year rate (1987/88)

consideration.

DM890.00 DM1691.00

# INTERNATIONAL JOURNAL FOR PARASITOLOGY

Sponsored by the Australian Society for Parasitology

Editor-in-Chief: J F A SPRENT, Department of Parasitology, University of Queensland, St Lucia, Brisbane, Queensland 4067, Australia

#### A selection of papers

An association between a lymphocyte antigen in sheep and the response to vaccination against the parasite Trichostrongylus colubriformis, P M OUTTERIDGE et al. Aspects of the life cycle of Schistosoma margrebowiei infection in laboratory mammals, M G OGBE. Digestion in the cattle-tick Boophilus microplus: light microscope study of the gut cells in nymphs and females, Ř I S AGBEDE & D H KEMP Effect of interferon on the infectivity of Trypanosoma cruzi in cultured HeLa cells, A OSUNA et al. Hepatic microsomal alterations during Dipetalonema viteae infection in Mastomys natalensis, A K SRIVASTAVA et al. Initial characterisation of the sheep immune response to infections of Lucilia cuprina, R M SANDEMAN et al. Hepatic mast cells in rats infected with Taenia taeniaeformis, M C LINDSAY & J F WILLIAMS. Gametogenesis in Plasmodium: the inhibitory effects of anticytoskeletal agents,

FREE SAMPLE COPIES AVAILABLE ON REQUEST

Advertising rate card available on request. Back issues and current subscriptions are also available in microform.

Prices are subject to change without notice. The Deutsche Mark prices shown are definitive and include postage and insurance. Please enquire for equivalent prices in other currencies.



R E SINDEN et al.

## Pergamon

Headington Hill Hall, Oxford OX3 0BW, UK Fairview Park, Elmsford, New York 10523, USA

1A-17 7-86

# Insect Science and its Application

### The International Journal of Tropical Insect Science

Contents—continued from outside back cou	er]	
J. H. NDERITU and J. M. MUEKE	667	Field evaluation of foliar and soil insecticides for the control of <i>Aphis gossypii</i> Glover (Homoptera: Aphididae) on potatoes in Kenya
J. H. NDERITU and J. M. MUEKE	677	Aphid infestation on eight potato cultivars (Solanum tuberosum L.) in Kenya
S. L. O. MALAKA	683	Carbohydrases in the alimentary canal of Amitermes evuncifer Silvestri (Isoptera: Termitidae: Termitinae)
Review of Journal	687	
Announcement	i	
New Patents	ii	
Editorial: Software Survey Section	I	
Ouestionnaire	IJ	

# Insect Science and its Application

The International Journal of Tropical Insect Science

#### **VOLUME 7 NUMBER 5**

1986

#### **CONTENTS**

B. U. SINGH and B. S. RANA	577	Mini Review Article Resistance in sorghum to the shootfly, Atherigona soccata Rondani
M. E. H. SHAZALI	589	Research Articles The potential rate of increase of Corcyra cephalonica (Staint.) on sorghum
T. C. Banerjee, N. Haque and A. K. Mahapatra	593	Influence of rice crop, climate and lunar cycles on the population patterns of <i>Scirpophaga nivella</i>
P. R. YADAV and DINESH KUMAR	599	Studies on electrophoretic protein patterns of fat body, haemolymph and ovary in an Indian fresh water-bug, <i>Laccotrephes rubra</i> Linn. (Nepidae: Heteroptera)
J. BAHANA and G. KARUHIZE	605	The role of <i>Diaeretiella rapae</i> (M'cintosh) (Hymenoptera: Braconidae) in the population control of the cabbage aphid, <i>Brevicoryne brassicae</i> L. (Hemiptera: Aphididae) in Kenya
R. P. Shukla	611	Spatial pattern of egg plant shoot and fruit borer, Leucinodes orbonalis Guen. (Lepidoptera: Pyraustidae) larvae
L. Chuka Madubunyi	617	Laboratory life history parameters of the red-tailed fleshfly, Sarco-phaga haemorrhoidalis (Fallen) (Diptera: Sarcophagidae)
GEORGE N. MBATA	623	Combined effect of temperature and relative humidity on mating activities and commencement of oviposition in <i>Plodia interpunctella</i> (Hubner) (Lepidoptera: Phycitidae)
Y. Mumcuoglu, R. Galun and R. Ikan	629	The aggregation response of human body louse ( <i>Pediculus humanus</i> ) (Insecta: Anoplura) to its excretory products
Ahlam A. Alfazairy	633	The pathogenicity of <i>Bacillus thuringiensis</i> isolated from the casuarina stem borer, <i>Stromatium fulvum</i> Vill. (Coleoptera: Cerambycidae) for larvae of two species of mosquitoes
T. R. AHMAD and A. A. KHADHUM	637	Influence of pheromone trap design and placement on capture of peach twig borer, <i>Anarsia lineatella</i> (Zeller) (Lepidoptera:Gelechiidae)
F. M. MWEGA	641	Socio-economic issues in the control of East Coast Fever (ECF) with particular reference to Kenya
A. K. Chakravarthy and A. S. Sidhu	647	Resistance to insect pest damage in four cotton varieties in Ludhiana
R. H. DWINGER, MAX MURRAY and S. K. MOLOO	653	Skin hypersensitivity to bites of Glossina morsitans centralis in goats
Ajibola M. Daramola	659	The development of <i>Dysdercus voelkeri</i> on three new sorghum varieties and assessment of its damage to grains
R. W. PIMLEY	663	Toxicity of chlordimeform to the tsetse fly Glossina morsitans

[continued on inside back cover

Insect Sci. Applic. is Indexed/Abstracted in Current Contents, CABS, BIOSIS Database, PASCAL-CNRS Database.

ISSN 0191-9040 ISIADL 7(5) 577-688 (1986)