

Journal of Apicultural Research

Volume 54 Number 3 June 2015

Contents

Hive product science

Honey as source of natural antioxidants

Mehmet Musa Özcan and Fahad Al Juhaimi 145

Glycemic index values of multifloral Turkish honeys and effect of their consumption on glucose metabolism

Meltem Soylu, Timucin Atayoğlu, Neriman İnanç and Sibel Silici 155

Antibacterial activity of polyphenol-rich extract of selected wild honey collected in Sabah, Malaysia

Philip Yap, Mohd Fadzelly Abu Bakar, Herbert Lim and David Carrier 163

The effect of propolis on biochemical parameters and antioxidant status of the blood of broiler chickens

Anna Kalafova, Peter Hascik, Miroslava Kacaniova, Peter Petruska and Marcela Capcarova 173

Pathology and parasitology

Potential for virus transfer between the honey bees *Apis mellifera* and *A. cerana*

Orlando Yañez, Huo-Qing Zheng, Xiao-Ling Su, Fu-Liang Hu, Peter Neumann and Vincent Diemann 179

Thai sacbrood and sacbrood viruses versus European foulbrood of hive bees in India – a review

K. Mohan Rao, Sapna Katna, Bachittar Singh Rana and Rakesh Rana 192

Infectivity of *Nosema ceranae* isolates from different hosts and immune response in honey bees *Apis mellifera* and *Apis cerana*

Veeranan Chaimanee and Panuwan Chantawannakul 200

Grooming behavior by worker bees of various subspecies of honey bees to remove *Varroa destructor* mites

Beata Bąk and Jerzy Wilde 207

Brood removal influences fall of *Varroa destructor* in honey bee colonies

Lilia I. de Guzman, Thomas E. Rinderer, Amanda M. Frake and Maria J. Kirrane 216

Lethal effect of boric acid and attractants against the small hive beetle, *Aethina tumida* Murray (Coleoptera: Nitidulidae)

Omar Reyes-Escobar, Eduardo Dosal-Alonso, Carlos Lara-Alvarez, Luis Gerardo Lara-Alvarez, José Antonio Dorantes-Ugalde and Luz María Saldaña-Loza 226

Preliminary investigation on other Nitidulidae beetles species occurring on rotten fruit in Reggio Calabria province (south-western Italy) infested with small hive beetle (*Aethina tumida*)

Franco Mutinelli, Giovanni Federico, Sara Carlin, Fabrizio Montarsi and Paolo Audisio 233

(Continued on inside back cover)

(Continued from outside back cover)

The suitability of the sterile insect technique as a pest management of small hive beetles, <i>Aethina tumida</i> Murray (Coleoptera: Nitidulidae)	
Peter Neumann, Sven Buchholz, Mark Jenkins and Jeffery S. Pettis	236
Pollination	
Determining the foraging potential of oilseed rape to honey bees using aerial surveys and simulations	
Roger Schürch, Margaret J. Couvillon and Francis L.W. Ratnieks	238
Sociobiology and behaviour	
Azimuth-dependent waggle dances; flight and foraging activities of the red dwarf honeybee, <i>Apis florea</i> Fabricius (1787)	
Preecha Rod-im, Orawan Duangphakdee, Sarah Radloff, Christian W W Pirk, Colleen Hepburn and Randall Hepburn	246
Stingless bees in a temperate climate: oviposition behavior and duration of ontogenic development stages in <i>Melipona colimana</i> (Hymenoptera: Meliponini)	
José O Macías-Macías and J Javier G Quezada-Euán	255
Toxicology	
Validation and monitoring of pesticide residues in honey using QuEChERS and gas chromatographic analysis	
Hasansab A. Nadaf, Gajendra Singh Yadav and Beena Kumari	260
The presence of synthetic acaricides in beeswax and its influence on the development of resistance in <i>Varroa destructor</i>	
Sandra K. Medici, Matías D. Maggi, Edgardo G. Sarlo, Sergio Ruffinengo, Juan M. Marioli and Martín J. Eguaras	267
The combined effects of miticides on the mating health of honey bee (<i>Apis mellifera</i> L.) queens	
Juliana Rangel and David R. Tarpy	275