



Conference of the IOBC/wprs Working Group on
“Integrated Protection of Stored Products”
Pisa, Italy
3 - 6 September 2019



PROGRAM

TUESDAY 3 SEPTEMBER 2019

UNIVERSITY OF PISA, AULA MAGNA - DEPARTMENT OF AGRICULTURE, FOOD AND ENVIRONMENT
Via del Borghetto, 80 Pisa

16.00 –19.00 – REGISTRATION

17.30 - OPENING CEREMONY

Alberto PARDOSSI - Director of the Department of Agriculture, Food and Environment, University of Pisa
Cristina CASTAÑÉ - Liaison of IOBC Working Group
Pasquale TREMATERRA - Convenor of the Working Group
Barbara CONTI - Local Organizer

18.30 - WELCOME DRINK

WEDNESDAY 4 SEPTEMBER 2019

UNIVERSITY OF PISA, AULA MAGNA-POLO PIAGGE Via Giacomo Matteotti, 11 Pisa

8.00 - REGISTRATION AND POSTER INSTALLATION

8.45 - SESSION 1: Physical, chemical and other techniques for stored product pest control

Session Chair: Arthur F. (USA)

Keynote Speaker: Athanassiou C.G. (Greece), Götze C., Jakob G., Allegra J., Sakka M., Agrafioti P., Riga M., Vontas J.

“Phosphine tolerance/resistance in Europe: what do we know so far?”

9.15 - Ocreto M. B., Fuertes L. A.P., Tala M.W., de Bruin T.

“Monitoring Rice Storability Using Carbon Dioxide Sensors in Gastight Storage”

9.30 - Kik O., Roth T.

“Pressurized Pest Control with Carbon Dioxide for Biological Stock Protection”

9.45 - Quinn E., Trostanetsky A., Rapaport A., Harush A., Gottlieb D.

“Deltamethrin Emulsion Activity in Grain Warehouses”

10.00 - Quellhorst H., Frank H. Arthur, W.R. Morrison III

“Efficacy of novel, reduced-risk insecticides for inducing mortality and sublethal changes in behavior for the post-harvest beetles, *Prostephanus truncatus* and *Sitophilus zeamais* after exposure on concrete surfaces”

10.15 - Nead-Nylander B., Hall W.

“Evaluation of Sulfuryl Fluoride (ProFume® gas fumi-gant) for control of the flat Grain Beetle (*Cryptolestes pusillus* (Schönherr)) and Maize Weevil (*Sitophilus zeamais* (Motschulsky))”

10.30 - Scully E.

“Using linked-reads to generate whole genome assemblies of stored product insects”

10.45 - Isikber A.A., Sağlam Ö., Henteş S., Altaş N.

“Residual contact toxicity of spinetoram against granary weevil (*Sitophilus granarius* L.) and confused flour beetle (*Tribolium confusum* Du Val.)

11.00 - COFFEE BREAK and POSTER SESSION

11.30 - Gerken A.R., Abts S.R., Scully E.D., Campbell J.F.

“Adaptation to non-lethal cold stress in *Trogoderma variabile* shows cross-tolerances for chronic cold stress and body size”

11.45 - Konemann C.E., Danso J.K., Opit G.P.

“Phosphine Discriminating Doses for Four Store-Product Psocid ('Psocoptera' – Psocodae: Liposcelididae)”

12.00 - Guerra P., Radeghieri P., Montanari C.

“The effectiveness of high-temperature treatments against *Dermanyssus gallinae* in layer poultry farms with a commercial eggs production, and an evaluation of its secondary effects to Total Bacterial Load (TBL) and Enterobacteriaceae “

12.15 - Adler C.

“Small particle size of flour limits efficacy of carbon dioxide-high pressure-treatment”

12.30 - Nayak M.K., Daghish G.J., Byrne V., Burrell P., Jagadeesan R., May P.

“Potential of Flavocide™ as a new grain protectant to manage major resistant stored grain pests: an Australian case study”

12.45 - Sağlam Ö., Şen R., Bozkurt H., Isikber A.A.

“Insecticidal efficacy of three commercial diatomaceous earths, Detech®, Demite® and Silicosec® against cowpea weevil, *Callosobruchus maculatus* (F.) (Coleoptera: Chrysomelidae: Bruchninae)”

13.00 - Yasir M., ul Hasan M., Sagheer M., ur Rehman H., Amjad F.

“Residual efficacy of novaluron applied on grain commodities for the control of sawtoothed grain beetle (*Oryzaephilus surinamensis*) and red flour beetle (*Tribolium castaneum*)”

13.15 - LUNCH and POSTER SESSION

14.30 - Boukouvala M.C., Kavallieratos N.G., Athanassiou C.G., Benelli G., Hadjarapoglou L.P.

“Insecticidal efficacy of six new pyrrole derivatives against four stored-product pests”

14.45 - Bayram A., Isikber A.A., Sağlam Ö., Şen R.

“Evaluation of repellency effect of diatomaceous Earth formulation (Detech®) on three coleopteran stored grain insects”

15.00 - SESSION 2: Pest management in the food industry

Session Chair: Savoldelli S. (Italy)

Keynote Speaker: Mahroof R. M. (USA)

“Pest Management in a Changing World: Challenges and Triumphs in the Food Industry”

15.30 - Tamburro M., Ripabelli G., Sammarco M.L., Di Tella D., Guerrizio G., Fanelli I., Nakken L., Trematerra P.

“*Alphitobius diaperinus*: the potential role in the transmission of human pathogenic bacteria”

15.45 - Arthur F.H., Scheff D.S., Domingue M.J.

“Research with Dermestid larvae: pitfalls and cautions”

16.00- Vukajlović F., Predojević D., Miljković K., Tanasković S., Gvozdenc S., Perišić V., Pešić S.

“The growth dynamics of *Plodia interpunctella* (Lepidoptera: Pyralidae) larvae on dried fruits and nuts”

16.15 - Guerra P., Conti G., Donati L.

“The practical application of mating disruption to population reductions of *Ephesia elutella* (Hb.) and *Plodia interpunctella* (Hb.) respectively in the chocolate and dried fruit processing industries and the reduction of disinfestation activities using biocidal products”

16.30 - Guarino S., Caimi M., Peri E.

“Estimating the release rate of pheromone dispensers of stored product pests with the use of Solid Phase Micro-Extraction”

16.45 - Boukouvala M.C., Kavallieratos N.G., Romano D., Athanassiou C.G., Stefanini C., Canale A., Benelli G.

“Impact of geographical origin on male mating success and behavioral asymmetries in the lesser grain borer, *Rhyzopertha dominica* (F.) (Coleoptera: Bostrichidae) – implications for IPM”

17.00 - Amjad F., Ashraf I., Qandeel A., ul Hasan M., Sagheer M., Yasir M.

“Assessment of different diet mediums for development of stored grain pest *Oryzaephilus surinamensis* (Coleoptera: Silvanidae)”

17.15 - Mueller K.

“Long-time storage of grain”

17.30 - Rumbos C.I., Rigopoulou M., Vrontaki M., Pantazis I., Athanassiou C.G.

“Stored-product insects as nutrient source: Challenges and perspectives”

17.45 - Iturralde-García R., Castañé, C., Wong-Corral, F., Riudavets, J.

“Control of *Rhyzopertha dominica* (Coleoptera: Bostrichidae) in chickpeas with CO₂ modified atmosphere packaging”

18.00 – Shivananjappa S., Wilches D., Floate K., Laird R., Fields P., Hervet V.

“Diapause, desiccation and cold tolerance in khapra beetle, *Trogoderma granarium*”

18.15 - Agrafioti P., Athanassiou C.G., Subramanyam Bh.

“Efficacy of heat treatment on phosphine resistant and susceptible populations of stored product insects”

18.30 - Duarte S., Hilario C., Limão J., Cunha S., Cambeiro A.F., Magro A., Barros G., Alvito P., Ferreira R.B., Teixeira B., Mendes R., Alves V., Mourato M.P., Carvalho M.O.

“*SafeGrains*: project to evaluate the contamination by insects and fungi on grains and derivatives in Portugal”

18.45 - Zakladnoy G., Kosyakov A.

“Application of modified Silicon Dioxide in Grain storages pest control. Practical application, Industrial treatment results”

THURSDAY 5 SEPTEMBER 2019

UNIVERSITY OF PISA, AULA MAGNA POLO PIAGGE Via Giacomo Matteotti, 11 Pisa

8.00 - POSTER INSTALLATION

8.45 - SESSION 3: Prevention of microflora infection and development of mycotoxins

Session Chair: Carvalho M.O. (Portugal)

Keynote Speaker: Sarrocco S. (Italy), Vannacci G.

"Field application of beneficial fungi to prevent postharvest mycotoxin contamination"

9.15 - Zajc J., Černoša A., Gostinčar C., Gunde-Cimerman N., Ravnikar M.

"*Aureobasidium* spp. as potent biocontrol yeasts for tackling fungal storage diseases"

9.30 - Langsi D.J., Suh C., Fokunang C.N., Nukenine E.N.

"Maize Biodegradation Control using Essential Oils from Bamenda"

9.45 - Navarro S., Navarro H.

"Prevention of condensation in shipping containers containing bagged stored products"

10.00 - SESSION 4: Quarantine and regulatory issues

Session Chair: Rozman V. (Croatia)

Keynote Speaker: Hamel D. (Croatia)

"Regulations related to storing of agricultural products and other goods"

10.30 - Kostyukovsky M., Kaspi R., Fallik E., Dobrinin S., Guinn E., Rappaport A., Harush A., Protasov A.

"Development of postharvest quarantine treatment against the western flower thrips *Frankliniella occidentalis* in pepper fruit"

10.45 - Navarro H., Navarro S.

"Phosphine sorption at low temperature fumigation of pot plants"

11.00 - Rosi C, Sacchetti P., Guidi R., Garbati Pegna F.

"Dates disinfection by Radio Frequency treatments"

11.15 - COFFEE BREAK and POSTER SESSION

11.45 - SESSION 5: Biological control of stored product pests

Session Chair: Riudavets J. (Spain)

Keynote Speaker: Russo A. (Italy), Suma P.

"Entomophagous insects as biocontrol agents of stored food pests"

12.15 - Fürstenau B., Awater-Salendo S.D.

"Biologically-based control of *Tribolium confusum* using parasitoids and semiochemicals: from basic research to semifield application"

12.30 - Riudavets J., Iturralde-García R., Castañé, C.

“Control of *Callosobruchus maculatus* (Coleoptera: Bruchidae) with natural enemies in chickpeas”

12.45 - Thakur D.R., Devi A.

“Studies on developmental compatibility and botanical management of *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) on different cultivars of *Vigna radiata* (L.) Wilczek”

13.00 - Masoomah Moosavi, Nooshin Zandi-Sohani, Ali Rajabpour

“Influence of temperature on the functional response of *Anisopteromalus calandrae* (Hym: Pteromalidae) to different population densities of *Callosobruchus maculatus* (Col.: Bruchidae)”

13.15 - Castañé, C; Iturralde-García, R.; Wong-Corral, F.; Riudavets, J.

“Possibilities for the biological control of the bean weevils *Acanthoscelides obtectus* and *Zabrotes subfasciatus* (Coleoptera: Bruchidae)”

13.30 - Mbata G.N., Shapiro-Ilan D.I., Alborn H., Strand M.R.

“Preferential infectivity of entomopathogenic nematodes in an envenomed *Plodia interpunctella* larvae”

13.45 - LUNCH and POSTER SESSION

15.00 - CONFERENCE TECHNICAL EXCURSION (Bus stop at the lateral entrance of the Department)

20.00 - CONFERENCE DINNER

FRIDAY 6 SEPTEMBER 2019

UNIVERSITY OF PISA, AULA MAGNA POLO PIAGGE Via Giacomo Matteotti, 11 Pisa

8.00 - POSTER INSTALLATION

8.45 - SESSION 6: Methods of pest prevention during storage, transportation and handling of stored products

Session Chair: Stejskal V. (Czech Republic)

Keynote Speaker: Campbell J.F. (USA)

“Prevention of stored product insect infestations through management of the outdoor landscape”

9.15 - Morrison W.R., Wilkins R.V.

“Long-lasting insecticide netting is effective at preventing dispersal to novel food patches against multiple stored product species and life stages”

9.30 - Stejskal V., Vendl T., Li Z., Aulicky R.

“Lower temperature thresholds for development, locomotion, flight, respiration and sound production of stored product insects and mites”

9.45 - Mutungi C., Gaspar A., Kabula E., Abass A.

“Quality of maize stored in hermetic bags by smallholder farmers in the Northern highlands of Tanzania: impact of farmer practices and agro-location”

10.00 - Scheff D.S., Arthur F.H., Campbell J.F.

“Evaluation of long-lasting insecticide treated netting against a suite of stored product insects”

10.15 - Reitter M.

“Protecting the Quality of Grain during storage through cool conservation”

10.30 - COFFEE BREAK and POSTER SESSION

11.00 - SESSION 7: Natural products

Session Chair: Adler C. (Germany);

Keynote Speaker: Nayak M.K. (Australia)

“Role of natural products in management of stored product pests: challenges and opportunities”

11.30 - Ashamo M.O., Ileke K. D., Odeyemi O.O.

“Efficacy of *Alstonia boonei* De Wild essential oil as entomocides in the management of cowpea bruchid, *Callosobruchus maculatus* Fab.”

11.45 - Gvozdenac S., Prvulović D., Bursić V., Ovuka J., Vukajlović F., Cvejić S., Tanasković S.

“The potential of *Ajuga* species as sunflower grain protectants against *Plodia interpunctella* Hübner”

12.00 - Okweche S.I., Hilili P.M.

“Susceptibility and termiticidal activity of oil-seeds of *Jatropha curcas* and Neem tree on the management of wood termites”

12.15 - Sabbour M.

“Effect of some natural oils against *Rhyzopertha dominica* (Coleoptera: Bostrichidae) under laboratory and store conditions”

12.30 - Taleb-Toudert K., Khouja M.L., Ben Brahim S., Kellouche A.

“Bio insecticidal effect of *Jatropha curcas* oil of Tunisian origin on *Rhyzopertha dominica*”

12.45 - Domingue M.J., Morrison W.R., Myers S.W.

“Behavioral effects of naturally extracted fatty acid on *Trogoderma* larvae”

13.00 - Gagnarli E., Tarchi F., Barzanti G., La Forgia F., Simoni S.

“Effectiveness of propolis' extracts for storage mites' control”

13.15 - LUNCH and POSTER SESSION

14.30 - SESSION 7: Natural products

14.30 - Ofuya T.

“The potential for integration of insecticidal botanical products with other control methods for stored grain protection against insect infestation and damage in Nigeria”

14.45 - Sagheer M., ul Hasan M., Ali Raza, Ali K., Rehman H.A., Gul Zaheer A., Iqbal M.

“Insecticidal bioactivity of extract of basil plant (*Ocimum basilicum*) in combination with *Metarhizium anisopliae* against saw toothed beetle *Oryzaephilus surinamensis* (Coleoptera: Silvanidae)”

15.00 - ul Hasan M., Zaman S., Anwar T., Ali Q., Ayyub M.B., Sadiq M.A., Amjad F., Mehmood R.

“Efficacy of plant extracts against *Tribolium castaneum* (Herbst) in two types of flours”

15.15 - Abada M.B., Hamdi S.H., Gharib R., Boushah E., Messaoud C., Fourmentin S., Greige-Gerges H., Médiouni-Ben Jemâa J.

“Essential oils loaded in nano-delivery systems: a developing technique for the control of the date moth *Ectomyelois ceratoniae* under storage conditions”

15.30 - Korunić Z., Liška A., Hamel D., Lucić P., Rozman V.

“Effectiveness of new developed natural and safe insecticide formulations against stored product insects”

15.45 - Babarinde S.A., Babarinde G.O., Adebayo T.A., Olaniran O.A., Akani R.A., Shittu R.O., Adeleye A.D.

“Response of saw-toothed grain beetle *Oryzaephilus surinamensis* (Linnaeus, 1758) (Coleoptera: Silvanidae) to *Piper guineense*-based biopesticides infesting melon”

16.00 - Giunti G., Algeri G.M., Campolo O., Laudani F., Palermo D., Palmeri V.

“Habituation of the lesser grain borer, *Rhyzoperta dominica*, to essential oil-based repellents”

16.15 - Wicochea-Rodríguez J.D., Ruiz T., Gastaldi E., Chéreau S., Chalier P.

“Biopesticide granules based on essential oils for the protection of wheat grain during storage”

16.30 - Bedini S., Farina P., Conti B.

“Repellence and attractiveness: the double effect of essential oils on insect pests”

16.45 - Baltaci D.

“Control effect of an almond and black cumin seed oil mixture towards four stored product pests”

17.00 - SESSION 8: Wood-boring, urban and museum pests

Session Chair: Guedes R.N.C. (Brazil)

Keynote Speaker: Plarre R. (Germany)

“Uninvited Guests in Museums – Management of Wood Worms and Clothes Moths”

17.30 - Savoldelli S., Farris S.

“Coating technology to preserve bread-made museum collections against *Sitophilus granarius*”

17.45 - Kassel A., Opitz C., Auer J.

“Biological control of wood destroying beetles with *Spathius exarator*”

18.00 - Cosme Jr. L., Turchen L.M., Guedes R.N.C.

“Tropical woods and the West Indian drywood termite *Cryptotermes brevis*”

18.15 - CONFERENCE CLOSING REMARKS, AWARD FOR THE BEST POSTERS AND ELECTION NEW CONVENOR

POSTERS

WEDNESDAY 4 SEPTEMBER 2019

- Physical, chemical and other techniques for stored product pest control

- Pest management in the food industry

1. Kordan B., Gabryś B.

“Effect of barley and buckwheat grain processing on the development and feeding of the confused flour beetle”

2. AlJabr A.M., Bukowah I.A.
“The development of *Ephestia cautella* (Lepidoptera: Pyralidae) under different temperature regimes”
3. Gvozdenac S., Ovuka J., Tanasković S., Vukajlović F., Prvulović D.
“The tolerance of external (*Plodia interpunctella*) and internal (*Sitophilus oryzae* and *S. zeamais*) grain feeders to high temperatures”
4. Iwamoto H., Takahashi R., Imai T.
“Effective light device for trapping stored products pyralid moths”
5. Lemic D., Jemberk D., Jantolek L., Šimunović K., Genda M., Andrijana Galešić Marija
“Ozone efficiency in insect suppression”.
6. Cabacos M., Duyme F., Crepon K.
“The effects of grain cleaning on the development of *Sitophilus oryzae* infestation”.
7. Khalaf M. Z., Naher F.H., Abdulhamza B.H., Sami R.A., Alshamari H.E.
“The effect of time's exposure and thickness of material on efficacy of microwave energy in some different stages for some storage insects”.
8. Kern P., Böttger G., Hentschel C., Höpfner D., Mattmüller B., Große K., Adler C.
“Insect laser optical detection and control of stored product insect pests with laser beams”
9. Iakovlev P.A.
“Preliminary tests of spinosad for grain treatment against stored product pests in Russia”.
10. Shah J.A., Aulicky R., Ryšánek P., Stejskal V.
“Controlled atmospheres to control an internally feeding stored product pests *Sitophilus granarius* and *Callosobruchus chinensis*”.
11. Tanguy A., Deudon O., Crepon K.
“Average cooling availability for grain aeration in France over the last 20 years”.
12. Aulicky R., Vendl T., Stejskal V.
“Is Indian meal moth good at playing “oviposition-darts” when searching for holes in fruit bar packages?”
13. Domingue M.J., Morrison W.R., Agrafioti P., Baliota G., Sakka M., Scheff D., Lampiri E., Gourgouta M., Boukouvala M.C., Myers S. W., Athanassiou C.G.
“Assessment of different traps and attractants in three processing facilities in Central Greece”
14. T.N. Vassilakos, J. Riudavets, C. Castañé, R.D. Iturralde-Garcia, C.G. Athanassiou
“Efficacy of modified atmospheres on *Trogoderma granarium* and *Sitophilus zeamais*”
15. Süß L., Cagnola A., Zaroni D., Cassani G.
“Resistance test for different pasta packagings to the massive and repeated attack by *Plodia interpunctella* larvae (Lepidoptera: Pyralidae) and *Sitophilus oryzae* adults (Coleoptera: Dryophthoridae)”

16. Oke M.A.
"Agricultural production, distribution and the demands for pesticides in Nigeria"
17. Simoni S., Gargani E., Tarchi F., Tirinnanzi L., Gagnarli E., Roversi P.F.
"Microwave technology: post harvest effectiveness on bruchid pests and mites on legumes"
18. Cominelli F., Reguzzi M.C., Mazzoni E., Nicoli Aldini R.
"Experimental investigations on infestation of grains and seeds recently introduced into Italy by stored product insects"
19. Predojević D., Vukajlović F., Rudnjanin I., Pešić S.
"Susceptibility of dried mushrooms (*Boletus edulis*, *Cantharellus cibarius* and *Agaricus bisporus*) to the attack of some storage insect pests (preliminary results)"
20. Mostoviak S., Sedyk V.
"Storage pests and pest control methods in Ukraine"

THURSDAY 5 SEPTEMBER 2019

- Prevention of microflora infection and development of mycotoxins
- Quarantine and regulatory issues
- Biological control of stored product pests

1. Mebarkia A., Meghazi N.
"Antifungal activity of essential oils against post-harvest wheat pathogen of *Aspergillus* sp."
2. Giunti G., Reale G., Santelmo M., Palermo D., Campolo O., Russo A., Palmeri V., Zappalà L.
"Oviposition deterrent activity of essential oil-based gel formulations against *Plodia interpunctella*"
3. Hamdi S.H., Abdelkader N., Hedjal-Chebheb M., Boushah E., Médiouni-Ben Jemâa J.
"Biological control of *Callosobruchus maculatus* using the parasitoid wasp *Dinarmus basalis*: Effects of host fitness".
4. Pampiglione G., Piombo C., Caimi M.
"Food Safety Standards positive contribution to Pest Management activities".
5. Rumbos C.I., Pantazis I., Athanassiou C.G.
"Population growth of the lesser mealworm, *Alphitobius diaperinus* (Panzer) (Coleoptera: Tenebrionidae) on amylaceous commodities".
6. Vendl T., Stejskal V., Aulicky R.
"Food packages invasion by Silvanid and Laemophloeid stored pests: morphological adaptations and climbing abilities".
7. Preißel S., Adler C., Kühne S.
"Online identification guide for stored product pests: <https://pflanzenchutz.oekolandbau.de>"
8. Pimentel M.A.G., Mendes S.M., de Meneses C.B., Fernandes D.K.S., de Oliveira I.R., Cota R.A.
"Choosing a suitable sorghum hybrid helps control the maize weevil in the tropic region?"

9. Cunningham N.M., Bellati J.
“Surveying for stored product pests in the South Australian agricultural environment - insights into diversity, sampling design and methodology”
10. Abdel M., Amro R.M.
“The influence of plant characters on the field infestation and resistance status of certain cowpea cultivars to the lima bean pod borer *Etiella zinckenella* Treitschke and the southern cowpea weevil *Callosobruchus maculatus* (Fabricius)”.
11. Kordan B., Gabryś B., Laszczak Dawid A.,
“Assessment of flour beetle *Tribolium confusum* Duv. infestation risk to compound animal feed”

FRIDAY 6 SEPTEMBER 2019

- Methods of pest prevention during storage, transportation and handling of stored products

- Natural products

- Wood-boring, urban and museum pests

1. Stejskal V., Kolar V., Nakic N., Moravcik C., Aulicky R.
“New machinery for rapid detection of pests of grain, rice and pulses during a loading process of a new commodity into a store”
2. Bohinc T., Trdan S.
“First results on potential insecticidal activity of plant powders of invasive alien plants against rice weevil under laboratory conditions”
3. Ajayi O.E., Oladele O.O., Ajayi O.G.
“Efficacy of *Elaeis guineensis* (Jacq) kernel oil against the bruchid pest, *Callosobruchus chinensis* (L.) (Coleoptera: Chrysomelidae) and two *Aspergillus* species: extraction methods and potency”.
4. Belaid M., Acheuk F., Baouche N., Bellazouz H., Lakhdari W., Dahliz A.
“Bio-pesticides potentialities of the Algerian Saharian plant *Euphorbia guyoniana* (Euphorbiaceae) against *Tribolium castaneum*”.
5. Bavarsad S.H., Zandi-Sohani N., Rajabpour A.
“Fumigant toxicity of some essential oils against the eggs of cowpea weevil, *Callosobruchus maculatus* F. (Col.: Bruchidae)”.
6. Bachrouch O., Hamdi S.H., Sritib J., Hamamib M., Boushah E., Abderraba M., Limam F., Médiouni-Ben Jemâad J.
“Fumigant potential of Tunisian *Mentha pulegium* L. essential oil against *Tribolium castaneum* (Herbst) and impact on flour quality in storage period”.
7. Singh P., Dall’Ara P., Martinez-Sañudo I., Sella L., Mori N.
“Efficacy evaluation of *Mentha piperita* essential oil against *Rhyzopertha dominica* and *Sitophilus zeamais* adults”.
8. Prvulović D., Milić B., Tarlanović J., Peić Tukuljac M., Milašinović N., Babić F.
“Sour cherry postharvest quality as affected by biopolymer and wild oregano essential oil”

9. Aulicky R., Jonas A., Hnatek J., Stejskal V.
"The efficacy of HCN and ethanedinitrile on stored product and phytoquarantine pests and their penetration through thick wooden blocks".
10. Acheuk F., Baouche N., Bellazouz H., Lakhdari W., Belaid M., Dahliz A.
"Valorization of the crude plant extract of the Saharan plant *Cotula cinerea* in the biocontrol of the red tribolium of the flour *Tribolium castaneum*"
11. Marques A., Magro A., Siteo M., Silva E., Barros G.
"Botanical insecticides against *Sitophilus zeamais* (Motschulsky)"
12. Goudougou J.W., Tofel K.H., Gangué T., Suh C., Nukenine E.N.
"Comparative toxicity of *Clinopodium ambrosoides* and *Tephrosia vogelii* leaf powder against *Acanthoscelides obtectus* (Chrysomelidae: Bruchinae)".
13. Hedjal-Chebheb M., Médiouni-Ben J.J., Taleb-Toudert K., Soumaya H., Kellouche A.
"Fumigant and repellent effects of *Eucalyptus cinerea* and *Eucalyptus maidenii* essential oils on *Callosobruchus maculatus* F. 1775 (Coleoptera: Bruchidae) and *Sitophilus oryzae* L. 1763 (Coleoptera: Curculionidae).
14. Sabbour M.M.A.
"Effect of some essential oils and their nano formulations against red flour beetle, *Tribolium castaneum* and confused flour beetle, *Tribolium confusum* (Coleoptera: Tenebrionidae) under laboratory and store conditions"
15. Sabbour M.M.A.
"Toxicity of the three essential oils against *Sitophilus granarius* under laboratory and store conditions"
16. Tofel H.K., Nkwain L., Atanga J.M. Nukenine E.N, Adler C.
"Effects of orange peel powder and cypress ash on *Phaseolus vulgaris* germination and *Acanthoscelides obtectus* infestation"
17. Di Domenico D., Blaiotta G., Rubechini A.
"Development of an IPM program in the Vatican Secret Archives"
18. Sinitsyna E., Staneva E.
"The monitoring of quarantine pest - cowpea weevil *Callosobruchus maculatus* Fabricius under storage conditions by using the synthetic sex pheromone"
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