



IOBC
OILB

WPRS International Organisation for Biological and Integrated Control of Noxious Animals and Plants: West Palearctic Regional Section

SROP Organisation Internationale de Lutte Biologique et Intégrée contre les Animaux et Plantes Nuisibles: Section Régionale Ouest Paléarctique

Università degli Studi del Molise



IOBC/WPRS (OILB/SROP) WORKING GROUP INTEGRATED PROTECTION OF STORED PRODUCTS

CAMPOBASSO, ITALY, JUNE 29 - JULY 2, 2009

CONFERENCE PROGRAM

Monday, 29 June

16.00-19.00 Registration
20.00 Welcome drink

Tuesday, 30 June

8.30-8.45 Welcome from Rector and Local Authorities
8.45-9.00 Invitation, Introduction Christos Athanassiou
Phyllis Weintraub
9.00-9.15 Welcome, Organization notes Pasquale Trematerra

Session 1: Overviews and new trends of stored-product protection

Chairpersons: Shlomo Navarro, Cornel Adler

Hour	Title/authors
9.15-9.30	Stored Product Entomology: shifting from the past to the future <i>Arthur F.</i>
9.30-9.45	Application of thermal disinfestation in the food industry <i>Navarro S., Finkelman S., Ashbell G.</i>
9.45-10.00	The incidence of fungi in stored rice <i>Magro A., Pera S., Barata M., Carolino M., Bastos M., Matos O., Mexia A.</i>
10.00-10.15	Methods to evaluate the effectiveness of methyl bromide alternatives in food processing plants <i>Fields P., Adler C., Bell C., Campbell J., Trematerra P.</i>
10.15-10.30	Essential oils for stored product protection: the case of garlic essential oil and its active components <i>Işikber A.A., Gözek N.</i>

10.30-11.00 Coffee break

Session 2: Monitoring, sampling, trapping and semiochemicals

Chairpersons: James Campbell, Jordi Riudavets

Hour	Title/authors
11.00-11.15	Monitoring stored product pests and natural enemies in food processing companies by trapping and spatial analysis <i>Belda C., Riudavets J.</i>
11.15-11.30	Captures unevenness of a flour beetles trap <i>Limonta L., Stampini M., Locatelli D.P.</i>
11.30-11.45	Five years of mass trapping of <i>Ephestia kuehniella</i> Zeller in a flour mill <i>Trematerra P., Gentile P.</i>
11.45-12.00	Evaluation of factors impacting trap captures of red flour beetle <i>Campbell J.F.</i>
12.00-12.15	Comparison of bait stations acceptance in wild population of house mice (<i>Mus musculus musculus</i>) <i>Novakova M., Aulicky R., Frynta D., Stejskal V.</i>
12.15-12.30	Implemented in field strategies for integrated protection of stored products by SGS <i>Cuadrado Gargallo A., Grauwett T.J.M.A.</i>
12.30-12.45	Biologically based control for stored-product moths (Lepidoptera: Pyralidae) <i>Phillips T.W., Ghimire M.N., Campos-Figueroa M., Mahroof R.M., Hasan M.M., Aikins M.J.</i>
12.45-13.00	Potential of using synthetic sex pheromone for mating disruption of stored-product Pyralidae <i>Sutherland J., Athanassiou C.G., Stejskal V., Trematerra P.</i>
13.00-13.15	Acoustic detection of insect pests of stored grain: experimental study of acoustic equipments for early warning about insect activity inside large grain bulks <i>Leblanc M.-P., Gaunt D., Fleurat-Lessard F.</i>

13.15-14.15 Lunch

Session 3: Biological control

Chairpersons: Tom Phillips, Matthias Schöller

Hour	Title/authors
14.15-14.30	Effect of short-term high temperatures to the survival and parasitism of the koinobiotic endoparasitoid <i>Venturia canescens</i> (Hymenoptera: Ichneumonidae) against <i>Plodia interpunctella</i> (Lepidoptera: Pyralidae) <i>Andreadis S.S., Spanoudis C.G., Savopoulou-Soultani M.</i>
14.30-14.45	Some like it hot – some not differences in temperature preference of two different Pteromalidae species <i>Nieder Mayer S., Steidle J.L.M.</i>
14.45-15.00	Biology of <i>Cephalonomia tarsalis</i> (Hymenoptera: Bethyridae), a video film <i>Prozell S., Schöller M.</i>
15.00-15.15	The warehouse pirate bug <i>Xylocoris flavipes</i> (Reuter, 1875) (Hemiptera: Anthracoridae), a potential natural enemy for biological control of flour beetles <i>Tribolium</i> spp. (Coleoptera: Tenebrionidae) in central Europe <i>Schöller M., Prozell S.</i>
15.15-15.30	Mechanisms contributing epizootics of <i>Bacillus thuringiensis</i> in <i>Plodia interpunctella</i> populations <i>Shojaaddini M., Moharramipour S., Khodabende M., Talebi A.A.</i>

15.30-15.45	Insectical effect of fenitrothion, diatomaceous earth and <i>Beauveria bassiana</i> against coleopteran pests on stored grain <i>Dal Bello G., Fusé C., Juárez P., Pedrini N., Imaz A., Padín S.</i>
15.45-16.00	Effectiveness of <i>Metarhizium anisopliae</i> (Metschinkoff) Sorokin (Deuteromycotina: Hyphomycetes) along with diatomaceous earth against the rice weevil, <i>Sitophilus oryzae</i> L. (Coleoptera: Curculionidae) <i>Wakil W., Ghazanfar M.U., Riasat T.</i>
16.00-16.15	The control of stored product pests in UK grain stores using the entomopathogenic fungus <i>Beauveria bassiana</i> <i>Taylor B., Luke B., Moore D. Wakefield M.</i>
16.15-16.30	Induction of micronuclei in ovaries of <i>Tribolium castaneum</i> exposed to gamma radiation and <i>Rosmarinus officinalis</i> essential oil <i>Ahmadi M., Moharramipour S., Mozdarani H., Babaii M.</i>
16.30-16.45	Bioassays with dry conidia of isolates of the entomopathogenic fungus <i>Beauveria bassiana</i> (Bals.) Vuill. against <i>Rhyzopertha dominica</i> F. (Coleoptera: Bostrychidae) <i>Draganova S., Zidan F., Obretenchev D.</i>

16.45-18.45 Poster session

21.00 FESTIVE DINNER

Wednesday, 1 July

7.30-18.30 CONFERENCE TRIP: ARCHAEOLOGICAL AREA OF POMPEII

Thursday, 2 July

Session 4: Phytochemicals

Chairpersons: Maria Otilia Carvalho, Luciano Süs

Hour	Title/authors
8.30-8.45	Management of moth pests of stored yam tubers (<i>Dioscorea</i> spp.) using plant powders <i>Ashamo M.O.</i>
8.45-9.00	Stability of tolerance to monoterpenoids in <i>Sitophilus</i> , <i>Rhyzopertha</i> and <i>Cryptolestes</i> selected populations <i>López, M.D., Stefanazzi N., Pascual-Villalobos M.J.</i>
9.00-9.15	The fungicide activity of clove and laurel essential oils against storage fungi <i>Magro A., Matos O., Bastos M., Carolino M., Mexia A.</i>
9.15-9.30	Fumigant toxicity of <i>Elettaria cardamomum</i> (L.) Maton. and <i>Bunium persicum</i> (Boiss.) Fedtsch. oils against <i>Tribolium castaneum</i> (Herbst) (Coleoptera: Tenebrionidae) <i>Moravvej G., Azizi-Arani M., Yaghmai F., Of-Shahraki Z.</i>
9.30-9.45	Efficacy of essential oil from <i>Callistemon viminalis</i> W. applied as an insecticidal fumigant and powder to control <i>Callosobruchus maculatus</i> (Fab.) (Coleoptera: Bruchidae) <i>Ndomo A.F., Tapondjou L. A., Tchouanguiep F.M.</i>
9.45-10.00	Nanoencapsulated <i>Artemisia sieberi</i> essential oil as a new formulation against <i>Callosobruchus maculatus</i> <i>Negahban M., Moharramipour S., Sarbolouki M.N.</i>

10.00-10.30 Coffee break

Session 5: Fumigation, controlled atmospheres, modified atmospheres and extreme temperatures

Chairpersons: Paul Fields, Francis Fleurat-Lessard

Hour	Title/authors
10.30-10.45	Susceptibility of cigarette beetle life stages to elevated temperatures <i>Subramanyam Bh., Yun C., Flinn P.</i>
10.45-11.00	Freezing for pest control in spices, herbs, nuts or dried fruits <i>Adler C.</i>
11.00-11.15	A rapid laboratory method for the comparative assessment of heat tolerance and lethal upper temperature level for different stored product insect pest species by thermorespirometry <i>Fleurat-Lessard F., Fuzeau B., Enjelvin J.-B.</i>
11.15-11.30	Evaluation of carbon dioxide treatments at high pressure and at different temperatures against <i>Plodia interpunctella</i> (Hübner) and <i>Sitophilus oryzae</i> L. <i>Pons M.J., Castañé C., Riudavets J.</i>
11.30-11.45	Improved treatment times for EcO ₂ controlled atmosphere ® in stored product pest control <i>Vroom N.</i>
11.45-12.00	Effect of sulfuryl fluoride fumigation on dried fig quality <i>Sen F., Meyvaci K.B., Aksoy U., Tan G., Buckley S.</i>
12.00-12.15	HT Ecosystem: a future method for pest control <i>Massara P., Urizio A.</i>
12.15-12.30	Laboratory evaluation of availability and level of resistance to phosphine in five Bulgarian populations of <i>Trogoderma versicolor</i> Creutz. (Coleoptera: Dermestidae) <i>Obretenchev A., Obretenchev D., Staneva E., Maneva S.</i>

12.30-13.30 Lunch

Session 6: Chemical control and inert dusts

Chairpersons: Frank Arthur, Vaclav Stejskal

Hour	Title/authors
13.30-13.45	Are phenylpyrazole insecticides alternatives for organophosphate insecticides to control storage pests? <i>Stejskal V., Aulicky R., Kucerova Z., Novakova M.</i>
13.45-14.00	Insecticidal effect of spinosad dust against three stored-grain insect species: effect of strain, commodity and combination with diatomaceous earth <i>Chintzoglou G., Athanassiou C.G., Arthur F.H., Kavallieratos N.G., Markoglou A.N.</i>
14.00-14.15	Residual efficacy of the insect growth regulator pyriproxyfen for control of stored product insects <i>Arthur F.H., Phillips T.W.</i>
14.15-14.30	Development of a non-toxic, ecologically compatible, natural-resource based insecticide from diatomaceous earth deposits of South Eastern Europe to control stored-grain insect pests <i>Athanassiou C., Kavallieratos N., Vayias B., Tomanovic Z., Petrovic A., Trdan S., Adler C., Korunic Z., Rozman V.</i>
14.30-14.45	Insecticide potential of diatomaceous earth from Croatia <i>Korunic Z., Rozman V., Halamic J., Kalinovic I., Hamel D.</i>

14.45-15.15 Coffee break

Session 7: Integrated Pest Management, pest prevention methods and legislation

Chairpersons: Christos Athanassiou, Darka Hamel

Hour	Title/authors
15.15-15.30	The future role of the pest control management for professionalism and European Legislation: a new A.N.I.D. and C.E.P.A. commitment <i>Urizio S.</i>
15.30-15.45	A system of seed and fodder grain protection against store pests in Belarus <i>Kozich I., Trepashko L.</i>
15.45-16.00	Integrated Pest Management of rice for consumption: EUREKA Project <i>Carvalho M.O., Adler C., Arthur F., Athanassiou C., Navarro S., Riudavets J., Trematerra P.</i>
16.00-16.15	Combination of diatomaceous earth, deltamethrin, and artificial cooling to manage coleopterans in paddy rice in subtropical climate <i>Lazzari F.A., Lazzari S.M.N., Ceruti F.C.</i>
16.15-16.30	Integrated Pest Management of insect pests in a pasta factory in Portugal <i>Maia A., Barros G.</i>

16.30-17.30 Conclusion remarks: Christos Athanassiou and Pasquale Trematerra

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Fumigant efficacy of three plant essential oils against adults of *Ephestia kuehniella* (Zeller) (Lep.: Pyralidae)
Abbasipour H., Seyedi A., Mahmoudvand M.

Insecticidal activity of extract from *Datura stramonium* (F.) (Solanaceae) against *Callosobruchus maculatus* (F.)
Abbasipour H., Rastegar F., Mahmoudvand M., Hosseinpour M.H.

Susceptibility of *Stegobium paniceum* (Coleoptera: Anobiidae) to low and high temperature at different life stages
Abdelghany A., Awadalla S.S., Abdel-Baky N.F., El-Syrafy H.A., Fields P.G.

Efficacy of *Mentha longifolia* and *Thymus kotschyanus* essential oils on nutritional indices and oviposition deterrence of *Tribolium castaneum*
Akrami H., Moharrampour S., Imani S.

Application of ascorbic acid and gluten for improving of baking properties and quality in damaged wheat grains by cereal sunn pest *Eurygaster integriceps* Put.
Askarianzadeh A., Rajabzadeh N., Abdollahi A.

Differential levels of mite infestation of wheat and barley in Czech grain stores
Aulicky R., Hubert J., Kucerova Z., Nesvorna M., Stejskal V.

Efficacy of heat to disinfest concrete grain silos
Bonjour E.L., Jones C.L., Opit G.P., Beeby R.L., Arthur F.H., Phillips T.W.

Tyrophagus putrescentiae (Astigmata: Acaridae) as a biological control agent for *Lasioderma serricorne* (Coleoptera: Anobiidae)

Canevari G.C., Resende F., D’ Antonio Faroni L.R., Serrao J.E., Papadopoulou S.C., Zanuncio J.C.

Traceability for stored wheat and maize

Ceruti F.C., Lazzari S.M.N., Lazzari F.A.

IPM of stored products in Albania

Cota E., Jaupi A., Cara M.

Temporal dynamics of excretion of fluorescent non-toxic bait in house mice (*Mus musculus*)

Eliasova B., Novakova M., Aulicky R., Stejskal V., Frynta D.

Screening of chickpea (*Cicer arietinum* L.) genotypes for resistance to pulse beetle (*Callosobruchus maculatus*)

Erler F., Toker C., Ceylan F.O., Erdemu T.

Laboratory assessment of the effect of various kinds of structural material holding different species of flour mill insect pests on the killing efficacy of exposure to heat at 50°C

Fleurat-Lessard F., Fuzeau B., Bezler C., Benlafquih R.

Xlure-MST - the multi-species pheromone trap for monitoring major stored products insects

Hassan M.N., Al-Zaidi S.

Insecticidal activity of essential oils isolated from rue (*Ruta graveolens* L.) and galbanum (*Ferula gummosa* Boiss.) on *Callosobruchus maculatus* (F.)

Hosseinpour M.H., Askarianzadeh A., Moharramipour S., Jalali Sendi J.

Laboratory examination of the efficacy of sodium selenite rodenticide against wild populations of Norway rat (*Rattus norvegicus*)

Jokic G., Vuksa M., Draganic M., Covic I., Dedovic S.

The effect of rodenticide baits containing 0.1% sodium selenite against commensal rodents *Rattus norvegicus* and *Mus musculus* at a milling facility

Jokic G., Vuksa M., Dedovic S.

Effect of harvesting time to preventing infestation of garlic moth, *Dyspessa ulula* Staudinger (Lep., Cossidae) in store

Khanjani M.

Laboratory evaluation of the efficacy of diatomaceous earths against *Plodia interpunctella* (Hübner) larvae in treated broken and unbroken maize kernels

Kljajic P., Andric G., Adamovic M., Markovic M., Prazic M.

Effect of Serbian-origin diatomaceous earths on *Acanthoscelides obtectus* (Say) adults in treated beans

Kljajic P., Andric G., Adamovic M., Markovic M., Prazic M.

Laboratory evaluation of the efficacy of inert dusts against adults of rice weevil, *Sitophilus oryzae* (L.) and red flour beetle *Tribolium castaneum* (Herbst) in treated wheat

Kljajic P., Andric G., Adamovic M., Markovic M., Prazic M.

The influence of the herbs sage and wormwood on the migrational activity of saw-toothed beetles *Oryzaephilus surinamensis* L. (Coleoptera: Cucujidae) populations

Klys M.

The use of beneficial insects against stored product pests – Results and experience from three years of field tests in Switzerland

Kraaz I., Meierhofer B., Fassbind D., Wyss G.S., Zigg D.

Identification of *Liposcelis bostrychophila* (Psocoptera: Liposcelididae) – comparison of morphological and molecular approaches

Kucerova Z., Zhi-Hong Li., Meng Qin, Stejskal V.

Patterns of diversity in Psocoptera using near infrared spectroscopy

Lazzari S.M.N., Ceruti F.C., Rodriguez-Fernandez J.I., Opit G.P., Lazzari F.A.

Fumigant toxicity of *Lavandula angustifolia* Mill and *Zataria multiflora* Boiss on *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae)

Moravvej G., Azizi M., Hatefi S., Golestani Z.

Fumigant toxicity of essential oil from *Zhumeria majdae* against *Callosobruchus maculatus*

Nikooei M., Moharramipour S., Talebi A.A.

Comparison of bait stations acceptance in wild populations of house mice (*Mus musculus musculus*)

Novakova M., Aulicky R., Frynta D., Stejskal V.

Seasonal abundance and distribution of psocids in an animal feed warehouse

Opit G.P., Bonjour E.L., Beeby R.L.

A survey of the mite fauna of greek flour mills

Palyvos N.E.

The functional response of *Cheyletus malaccensis* (Acari: Cheyletidae) to various densities of *Ephestia kuehniella* (Lepidoptera: Pyralidae) eggs

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Moulds and heritage eaters in libraries and archives: ecological and applied issues

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Chemical composition and insecticidal activity of essential oil from *Zataria multiflora* Boiss. (Lamiaceae) against *Callosobruchus maculatus* F. (Coleoptera: Bruchidae)

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Efficacy of five Slovenian natural quartz sands admixed with wheat grains against *Sitophilus oryzae*

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Blaptica dubia (Blattodea: Blaberidae): damage to photographs

Ruschioni E., Matè D., Adamo M., Cesareo U.

Insecticidal and repellent activities of *Citrus reticulata*, *Citrus limon* and *Citrus aurantium* essential oils on *Callosobruchus maculatus*

Saeidi M., Moharramipour S., Sefidkon F., Aghajanzadeh S.

Susceptibility of eggs of *Tribolium confusum* du Val (Coleoptera: Tenebrionidae), *Ephestia kuehniella* (Zell.) and *Plodia interpunctella* (Hübner) (Lepidoptera: Pyralidae) to four essential oil vapours

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Effect of ultra violet irradiation on egg hatching of *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae)

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Life table parameters and thermal requirements of *Oryzaephilus surinamensis* (Coleoptera: Silvanidae) on different wheat cultivars

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Microwave treatments and mortality in *Callosobruchus maculatus* (F.) and *Acanthoscelides obtectus* (Say) (Coleoptera: Bruchidae)

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Efficiency of essential oil from *Salvia mirzayanii* against nutritional indices of *Tribolium confusum*

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Temperature-dependent development of the koinobiotic endoparasitoid *Venturia canescens* (Hymenoptera: Ichneumonidae) parasitizing *Plodia interpunctella* (Lepidoptera: Pyralidae)

Spanoudis C.G., Andreadis S.S., Solonos A.K., Savopoulou-Soultani M.

Mass trapping and mating disruption to control *Cadra cautella* (Walker) in a confectionery factory

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Screening for bruchid resistance and marker assisted selection of common beans (*Phaseolus vulgaris* L.) in Ethiopia

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Mortality effect of elevated temperatures on adult German cockroach, *Blattella germanica* (L.) (Dictyoptera: Blattellidae)

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Mixing of *Beauveria bassiana* (Balsamo) Vuillemin (Hyphomycetes: Moniliales) with diatomaceous earth for the control of *Rhyzopertha dominica* F. (Coleoptera: Bostrychidae) on stored wheat

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