

Publicaciones grupo AGR-163 Entomología Agrícola

- Lozano-Tovar, M.D., Garrido-Jurado, I., Lafont, F., Quesada-Moraga, E. (2015) Insecticidal activity of a destruxin-containing extract of *Metarhizium brunneum* against *Ceratitis capitata* (Diptera: Tephritidae). *Journal of Economic Entomology* 108: 462-472.
- Yousef, M., Quesada-Moraga, E., Garrido-Jurado, I. (2015) Compatibility of herbicides used in olive orchards with a *Metarhizium brunneum* strain used for the control of olive fly preimaginals in the soil. *Journal of Pest Science* 88: 605-612
- Garrido-Jurado, I., Fernández-Bravo, M., Campos, C., Quesada-Moraga, E. (2015) Diversity of entomopathogenic Hypocreales in soil and phylloplanes of five Mediterranean cropping systems. *Journal of Invertebrate Pathology* 130: 97-106
- Álvarez-Baz G, Fernández-Bravo M, Pajares J, Quesada-Moraga E. (2015) Potential of native *Beauveria pseudobassiana* strain for biological control of Pine Wood Nematode vector *Monochamus galloprovincialis*. *Journal of Invertebrate Pathology* 132: 48-56
- Sánchez Rodríguez, A., Campillo-García, M.C., Quesada-Moraga, E. (2015) *Beauveria bassiana*: An entomopathogenic fungus alleviates Fe chlorosis symptoms in plants grown on calcareous substrates. *Scientia Horticulturae* 197: 193-202
- A. Carpio, N. Arroyo-Manzanares, A. Ríos-Moreno, I. Garrido-Jurado, L. Gámiz-Gracia, A.M. García-Campaña, E. Quesada-Moraga, L. Arce (2016) Development of a QuEChERS-based extraction method for the determination of destruxins in potato plants by UHPLC-MS/MS. *Talanta* 146: 815-822
- Resquín-Romero G., Garrido-Jurado, I. Quesada-Moraga, E. (2016) Combined use of entomopathogenic fungi and their extracts improves the control of *Spodoptera littoralis* (Boisduval) (Lepidoptera:Noctuidae). *Biological Control* 92: 101-110
- Ríos-Moreno A, Carpio A, Garrido-Jurado I, Arroyo-Manzanares N, Lozano-Tovar MD, Arce L, GámizGracia L, García-Campaña AM, Quesada-Moraga E (2016) Production of destruxins by *Metarhizium* strains under different stress conditions and their detection by using UHPLC-MS/MS. *Biocontrol Science and Technology* 26 (9): 1298-1311

Publicaciones grupo AGR-163 Entomología Agrícola

- Ríos-Moreno A, Quesada-Moraga E, Garrido-Jurado, I., Resquín-Romero, G., Arroyo- Manzanares, N., Arce, I., Quesada-Moraga, E. (2016) Destruxin A production by *Metarhizium brunneum* strains during transient endophytic colonisation of *Solanum tuberosum*. *Biocontrol Science and Technology* 26: 1574-1585
- Carpio A, Ríos-Moreno A, Garrido-Jurado I, Quesada-Moraga E, Arce L (2016) Capillary Electrophoresis as a Promising Technique to Evaluate Metabolites Secreted by Fungal Biocontrol Agents. *Chromatographia* 1-9
- Resquín-Romero G., Garrido-Jurado I., Delso C., Ríos-Moreno A., Quesada-Moraga E (2016) Transient endophytic colonizations of plants improve the outcome of foliar applications of mycoinsecticides against chewing insects. *Journal of Invertebrate Pathology* 136: 23-31
- Garrido-Jurado, I., Alkhaibari, A., Williams, S.R., Oatley- Radcliffe, D.L., Quesada-Moraga, E., Butt, T.M. (2016) Toxicity testing of *Metarhizium conidia* and toxins against aquatic invertebrates. *Journal of Pest Science* 89: 557-564
- Fernández-bravo, M., Garrido-Jurado, I., Valverde-García, P., Enkerli, J., Quesada-Moraga, E. (2016) Responses to abiotic environmental stresses among phylloplane and soil isolates of *Beauveria bassiana* from two holm oak ecosystems. *Journal of Invertebrate Pathology* 141: 6-17
- Sánchez-Rodríguez, AR, Barrón, V., Del Campillo, MC., Quesada-Moraga, E. (2016) The entomopathogenic fungus *Metarhizium brunneum*: a tool for alleviating Fe chlorosis. *Plant and Soil* 406: 295-310
- Garrido-Jurado I, Resquín-Romero G, Amarilla SP., Ríos-Moreno A. Carrasco L, Quesada-Moraga E (2017) Transient endophytic colonization of melon plants by entomopathogenic fungi after foliar application for the control of *Bemisia tabaci* (Gennadius) (Hemiptera: Aleyrodidae). *Journal of Pest Science* 90: 319-330

Publicaciones grupo AGR-163 Entomología Agrícola

- Yousef M., Garrido-Jurado I., Ruíz-Torres M., Quesada-Moraga E. (2017) Reduction of adult olive fruit fly populations by targeting preimaginals in the soil with the entomopathogenic fungus *Metarhizium brunneum*. 90: 345-354
- Arroyo-Manzanares, N., Di Mavungu, D.J., Garrido-Jurado, I., Lourdes, A., Vanhaecke, L., QuesadaMoraga, E., De Saeger, S. (2017) Analytical strategy for determination of known and unknown destruxins using hybrid quadrupole-Orbitrap high-resolution mass spectrometry. *Analytical and Bioanalytical Chemistry* 409: (13) 3347-3357
- Raya-Díaz, S; Quesada-Moraga, E; Barron, V., del Campillo, MC., Sanchez-Rodríguez, A (2017) Redefining the dose of the entomopathogenic fungus *Metarhizium brunneum* (Ascomycota, Hypocreales) to increase Fe bioavailability and promote plant growth in calcareous and sandy soils. *Plant and Soil* 418: 387-404
- Fernández-bravo, M., Flores-León, A., Calero-López,S., Gutiérrez-Sánchez, F., Valverde-García, P., Quesada-Moraga, E. (2017) UV-B radiation-related effects on conidial inactivation and virulence against *Ceratitis capitata* (Wiedemann)(Diptera; Tephritidae) of phylloplane and soil *Metarhizium* sp. Strains. *Journal of Invertebrate Pathology* 148: 142-151
- Lozano-Tovar, MD, Garrido-Jurado, I, Quesada-Moraga, E., Trapero-Casas, A. (2017) *Metarhizium brunneum* and *Beauveria bassiana* release secondary metabolites with antagonistic activity against *Verticillium dahliae* and *Phytophthora megasperma* olive pathogens. *Crop Protection* 100: 186-195
- Ríos-Moreno, A., Garrido-Jurado, I., Raya-Ortega,M.C., Quesada-Moraga,E. (2017) Quantification of fungal growth and destruxin A during infection of *Galleria mellonella* larvae by *Metarhizium brunneum*. *Journal of Invertebrate Pathology* doi: 10.1016/j.jip.2017.06.007
- Raya-Díaz, S., Sanchez-Rodríguez, AR; Segura-Fernandez, JM Campillo, MC Quesada-Moraga, E. (2018) Entomopathogenic fungi-based mechanisms for improved Fe nutrition in sorghum plants grown on calcareous substrates. *PLOS ONE* 12 (10): e0185903
- Yousef, M., Aranda-Valera, E., Quesada-Moraga, E. (2018) Lure-and-infect and lure-and-kill devices

based on *Metarhizium brunneum* for spotted wing *Drosophila* control. *Journal of Pest Science* 91: 227-235

- Sanchez-Rodriguez, AR; Raya-Diaz, S., Zamarreno, AM; Garcia-Mina, J.M., del Campillo, MC QuesadaMoraga, E. (2018) An endophytic *Beauveria bassiana* strain increases spike production in bread and durum wheat plants and effectively controls cotton leafworm (*Spodoptera littoralis*) larvae. *Biological Control* 116: 90-102
- Ríos-Moreno, A., Quesada-Moraga E., Garrido-Jurado I. (2018) Treatments with *Metarhizium brunneum* BIPESCO5 and EAMa 01/58-Su strains (Ascomycota: Hypocreales) are low risk for the generalist predator *Chrysoperla carnea*. *Journal of Pest Science* 91: 385-394
- Meelad Y., Alba-Ramírez, C., Garrido Jurado, I., Mateu, J., Raya Díaz, S., Valverde-García,P., QuesadaMoraga, E. (2018) *Metarhizium brunneum* (Ascomycota; Hypocreales) Treatments Targeting Olive Fly in the Soil for Sustainable Crop Production. *Frontiers in Plant Science* doi: 10.3389/fpls.2018.00001
- Rustiguel, C., Fernández-Bravo, M., Guimaraes, LH, Quesada-Moraga, E. (2018) Different strategies to kill the host presented by *Metarhizium anisopliae* and *Beauveria bassiana*. *Canadian Journal of Microbiology* 64: 191-200
- Dembilio Ó., Moya P., Vacas S., Ortega-García L., Quesada-Moraga E., Jaques J.A, Navarro-Llopis V (2018) Development of an attract-and-infect device to control *Rhynchophorus ferrugineus* with the entomopathogenic fungus *Beauveria bassiana*. *Pest Management Science* 74: 1861-1869
- Filippou, C.* , Inmaculada Garrido-Jurado, I.* Meyling, N.V., Quesada-Moraga, E., Coutts, R.H.A., Kotta-Loizou, I. (2018) Mycoviral population dynamics in Spanish isolates of the entomopathogenic fungus *Beauveria bassiana*. *Viruses* doi: 10.3390/v10120665
- Valverde-Garcia, P., Santiago-Alvarez, C., Thomas, M.B., Garrido-Jurado, I., Quesada-Moraga, E (2018) Comparative effects of temperature and thermoregulation on candidate strains of entomopathogenic fungi for Moroccan locust *Dociostaurus maroccanus* control. *BioControl* 63: 819-831

- González-Mas, N., Quesada-Moraga, E., Plaza, M, Fereres, A., Moreno, A. (2019) Changes in feeding behaviour are not related to the reduction in the transmission rate of plant viruses by *Aphis gossypii* (Homoptera: Aphididae) to melon plants colonized by *Beauveria bassiana* (Ascomycota: Hypocreales). : *Biological Control* 130: 95-103
- González-Mas, N., Ortega-García, L., Garrido-Jurado, I., Dembilio, O., Jaques, J.A. Quesada-Moraga, E. (2019) Which came first: The disease or the pest? Is there a host mediated spread of *Beauveria bassiana* (Ascomycota: Hypocreales) by invasive palm pests? *Journal of Invertebrate Pathology* 162: 26-42
- Valverde-García, P., Santiago-Álvarez, P., Thomas, M.B., Maranhao, E.A.A., Garrido-Jurado, I., Quesada-Moraga, E. (2019) Sublethal effects of mixed fungal infections on the Moroccan locust, *Dociostaurus maroccanus*. *Journal of Invertebrate Pathology* 161: 61-69
- González-Mas, N.; Cuenca-Medina, M.; Gutiérrez-Sánchez, F.; Quesada-Moraga, E (2019) Bottom-up effects of endophytic *Beauveria bassiana* on multitrophic interactions between the cotton aphid, *Aphis gossypii*, and its natural enemies in melon. *Journal of Pest Science* doi: 10.1007/s10340-019-01098-5
- Hadjtaieb, K., Gharsallah, H., Ksentini, I., Schuster, C., Fernández-Bravo, M., Garrido-Jurado, I., Quesada-Moraga, E., Leclerque, A., Mohamed, A.T., Ksantini, M. (2019) Phytopathogenic and antagonistic potentialities of fungi associated with pistachio bark beetle, *Chaetoptelius vestitus* (Coleoptera, Curculionidae), infesting pistachio (*Pistacia vera*) in Tunisia. *Journal of Applied Microbiology* (In press) doi: 10.1111/jam.14272
- Natalia González-Mas, Araceli Sánchez-Ortiz, Pablo, Valverde-García, Enrique Quesada-Moraga (2019) Effects of endophytic entomopathogenic ascomycetes on the life-history traits of *Aphis gossypii* Glover and its interactions with melon plants. *Insects* doi: 10.3390/insects10060165

Publicaciones grupo AGR-163 Entomología Agrícola

- Miranda, P., Quesada-Moraga, E., Yousef-Naef, M. (2019) Compatibility between the endoparasitoid *Hyposoter didymator* and the entomopathogenic fungus *Metarhizium brunneum*: implications for control of *Spodoptera littoralis*. *Pest Management Science* 92: 1271-1281
- Garrido-Jurado, I., Resquin-Romero, G., Yousef, M., Rios-Moreno, A., Quesada-Moraga, E. (2019) Soil drenching with entomopathogenic fungi for control of the soil-dwelling life stages and adults of the same generation of *Spodoptera littoralis* (Boisd.) (Lepidoptera: Noctuidae. *Bulletin of Entomological Research* doi: 10.1017/S000748531900052X
- González-Guzmán, A., Sacristán, D., Quesada-Moraga, E., Torrent, J., Campillo, M. C., & Sánchez-Rodríguez, A. R. Título: Effects of entomopathogenic fungi on growth and nutrition in wheat grown on two calcareous soils: influence of the fungus application method. *Annals of Applied Biology*.
Ref. revista: *Annals of Applied Biology* <https://doi.org/10.1111/aab.12596>
Clave: A Volumen: 177 Páginas, inicial: 26 final: 40 Fecha: 2020
- Garrido-Jurado, I. Montes-Moreno, D. Sanz-Barrionuevo, Pilar. Quesada-Moraga, E. Título: Delving into the Causes and Effects of Entomopathogenic Endophytic *Metarhizium brunneum* Foliar Application-Related Mortality in *Spodoptera littoralis* Larvae . Ref. revista: *Insects* <https://doi.org/doi:10.3390/insects11070429>
Clave: A Volumen: 11 Páginas, inicial: final: Fecha: 2020
- Quesada-Moraga, E.
Título: Entomopathogenic fungi as endophytes: their broader contribution to IPM and crop production .Ref. revista: *Biocontrol Science and Technology* <https://doi.org/doi:10.1080/09583157.2020.1771279>
Clave: A Volumen: 30 Páginas, inicial: 864 final: 877 Fecha: 2020
- Yousef-Yousef, M. Quesada-Moraga, E.
Título: Towards *Dactylopius opuntiae* (Cockerell) (Hemiptera: Dactylopiidae) biological and integrated management at field conditions in Cadiz province (Spain)
Ref. revista: *Biocontrol Science and Technology* <https://doi.org/doi:10.1080/09583157.2020.1771280>

Clave: A Volumen: 30 Páginas, inicial: 951 final: 961 Fecha: 2020

- Miranda-Fuentes, P.a, Yousef-Yousef, M., Valverde-García, P., Rodríguez-Gómez, I.M., Garrido-Jurado, I., Quesada-Moraga, E.

Título: Entomopathogenic fungal endophyte-mediated tritrophic interactions between *Spodoptera littoralis* and its parasitoid *Hyposoter didymator*

Ref. revista: Journal of Pest Science <https://doi.org/10.1007/s10340-020-01306-7>

Clave: A Volumen: 94 Páginas, inicial: 933 final: 945 Fecha: 2021

- Natalia González-Mas; Rafael Valverde-García; Fernando Gutiérrez-Sánchez; Enrique Quesada-Moraga

Título: Effect of passage through the plant on virulence and endophytic behavioural adaptation in the entomopathogenic fungus *Beauveria bassiana*

Ref. revista: Biological Control DOI: <https://doi.org/10.1016/j.biocontrol.2021.104687>

Clave: A Volumen: Páginas, inicial: final: Fecha:

- Natalia González-Mas, Fernando Gutiérrez-Sánchez, Araceli Sánchez-Ortiz, Luca Grandi, Ted C J Turlings, José Manuel Muñoz-Redondo, José Manuel Moreno-Rojas, Enrique Quesada-Moraga

Título: Endophytic colonization by the entomopathogenic fungus *Beauveria bassiana* affects plant volatile emissions in the presence or absence of chewing and sap-sucking insects".

Ref. revista: Frontiers in Plant Science DOI: [10.3389/fpls.2021.660460](https://doi.org/10.3389/fpls.2021.660460)

Clave: A Volumen: Páginas, inicial: final: Fecha:

- González-Guzmán, A., Sánchez-Rodríguez, A.R., Quesada-Moraga, E., del Campillo, M.C., Yousef-Yousef, M.

Título: Optimizing wheat seed treatment with entomopathogenic fungi for improving plant growth at early development stages

Ref. revista: Spanish Journal of Agricultural Research DOI: <https://doi.org/10.5424/sjar/2021194-17120>

Clave: A Volumen: 19(4) , Article Number e1004 Fecha: 2021

- Yousef-Yousef, M.; Romero-Conde, A.; Quesada-Moraga, E.; Garrido-Jurado, I.

Publicaciones grupo AGR-163 Entomología Agrícola

Título: Production of Microsclerotia by Metarhizium sp., and Factors Affecting Their Survival, Germination, and Conidial Yield.

Ref. revista: Journal of Fungi. DOI: <https://doi.org/10.3390/jof8040402>

Clave: A Volumen: 8, Article Number 402 Fecha: 2022

- Adrián Gonzalez Guzmán, Dolores Rey, Emilie Froussart, and Enrique Quesada-Moraga

Título: Elucidating the effect of endophytic entomopathogenic fungi on bread wheat growth through signaling of immune response-related hormones

Ref. revista: Applied and Environmental Microbiology DOI:10.1128/aem.00882-22

Clave: A Volumen: Fecha: 2022

- Carmen López, Sandra Las Heras, Inmaculada Garrido-Jurado, Enrique Quesada-Moraga, Matilde Eizaguirre

Título: Survey of natural enemies of the invasive boxwood moth *Cydalima perspectalis* in southwestern Mediterranean Europe and biocontrol potential of a native *Beauveria bassiana* (Balsamo) Vuil. strain

Ref. revista: Insects DOI: <https://doi.org/10.3390/insects13090781>

Clave: A Volumen: 13, 781. Fecha: 2022

- Garrido-Jurado, I., Quesada-Moraga, E., Yousef., M.

Título: Zizyphus fruit fly *Carpomya incompleta* (Becker) (Diptera: Tephritidae) is expanding its range in Europe

Ref. revista Spanish Journal of Agricultural Research DOI: <https://doi.org/10.5424/sjar/2022204-18961>

Clave: A Volumen: 20 Páginas: e10SC02 Fecha: 2022

- Quesada-Moraga, E., Garrido-Jurado, I., Yousef., M., González-Mas, N.

Título: Multitrophic interactions of entomopathogenic fungi in biocontrol

Ref. revista: Biocontrol DOI: 10.1007/s10526-022-10163-5

Clave: A Volumen: 67 Páginas: 457–472 <https://doi.org/10.1007/s10526-022-10163-5>
Fecha: 2022

Publicaciones grupo AGR-163 Entomología Agrícola

- Mengual-Marti, A, Martinez-Solis, M, Yousef-Yousef, M., Garrido-Jurado, I, Delgado-Sanfiel, P., Quesada-Moraga, E., Herrero, S.

Título: Impact of covert infections with an RNA virus on the susceptibility of *Spodoptera exigua* to natural enemies

Ref. revista: Biocontrol DOI: 10.1007/s10526-022-10163-5

Clave: A Volumen: 67 Páginas: 605-615 [https:// 10.1007/s10526-022-10167-1](https://10.1007/s10526-022-10167-1) Fecha: 2022