

PUBLICATIONS



REVIEWS

Halpern M, Bar-Tal A, Ofeky M, Minz D, Müller T, Yermiyahu U (2015) The Use of biostimulants for enhancing nutrient uptake. *Advances in Agronomy* 130-141-1748/MMBR.00050-14.

Hardoim PR, van Overbeek LS, Berg G, Pirttilä AM, Compante S, Campisano A, Döring M, Sessitsch A (2015) The Hidden world within plants: Ecological and evolutionary considerations for defining functioning of microbial endophytes. *Microbiol Mol Biol Rev.* 2015 September ; 79(3): 293–320. doi:10.112

Nkebiwe, P.M., Weinmann, M., Bar-Tal, A., Müller, T. (2016). Fertilizer placement to improve crop nutrient acquisition and yield: a review and meta-analysis. *Field Crops Research* 196:389-401

van Overbeek LS, Saikkonen K. (2016) Impact of Bacterial-Fungal Interactions on the Colonization of the Endosphere. *Trends Plant Sci.* 2016 Mar;21(3):230-42. doi: 10.1016/j.tplants.2016.01.003.

Zaytseva O, Neumann G. (2016): Carbon nanomaterials: production, impact on plant development, agricultural and environmental applications” in *Chemical and Biological Technologies in Agriculture*, 2016. DOI: 10.1186/s40538-016-0070-8

Peer-reviewed scientific Publications

- 2013

Akter Z., Weinmann M., Neumann G., Römheld V. (2013) An *in-vitro* screening method to study the activity potential of biofertilizers based on *Trichoderma* and *Bacillus* sp. *J. Plant Nutr.* 36: 1439-1452.

Carvalhais LC, Dennis PG, Fan B, Fedoseyenko D, Kierul K, et al. (2013) Linking Plant Nutritional Status to Plant-Microbe Interactions. *PLoS ONE* 8(7): e68555. doi:10.1371/journal.pone.0068555

Dietel K, Beator B, Budiharjo A, Fan B, Borriss R (2013) Bacterial traits involved in colonization of *Arabidopsis thaliana* roots by *Bacillus amyloliquefaciens* FZB42. *Plant Pathol. J.* 29(1) : 59-66 (2013) <http://dx.doi.org/10.5423/PPJ.OA.10.2012.0155>
[pISSN 1598-2254 eISSN 2093-9280](http://dx.doi.org/10.5423/PPJ.OA.10.2012.0155)

Imran M, Asim M, Römheld V, Neumann G (2013) Nutrient seed priming improves seedling development and increases grain yield of maize exposed to low root zone temperatures during early growth. *Europ. J. Agron.*49: 141-148.

Niu B, Vater J, Rueckert C, Blom J, Lehmann M, Ru JJ, Chen XH, Wang Q, Borriss R (2013) Polymyxin P is the active principle in suppressing phytopathogenic *Erwinia* spp. by the biocontrol rhizobacterium *Paenibacillus polymyxa* M-1. *BMC Microbiology* 13:137. doi:10.1186/1471-2180-13-137

- 2014

Budiharjo A, Chowdhury SP, Dietel K, Beator B, Dolgova O, et al. (2014) Transposon Mutagenesis of the Plant-Associated *Bacillus amyloliquefaciens* ssp. *plantarum* FZB42 Revealed That the *nfrA* and *RBAM17410* Genes Are Involved in Plant-Microbe-Interactions. *PLoS ONE* 9(5): e98267. doi:10.1371/journal.pone.0098267

Qiao JQ, Wu HJ, Huo, RGao XW, Borriss R (2014) Stimulation of plant growth and biocontrol by *Bacillus amyloliquefaciens* subsp. *plantarum* FZB42 engineered for improved action. *Chemical and Biological Technologies in Agriculture* 1:12

Scholz R, Vater J, Budiharjo A, Wang Z, He Y, Dietel K, Schwecke T, Herfort S, Lasch P, Borriss R (2014) Amylocyclicin, a novel circular bacteriocin produced by *Bacillus amyloliquefaciens* FZB42. *Journal of Bacteriology* 196: 1842–1852.

Schreiter S, Ding GC, Heuer H, Neumann G, Sandmann M, Grosch R, Kropf, Smalla K (2014): Effect of the soil type on the microbiome in the rhizosphere of field-grown lettuce. *Front Microbiol.* 2014 Apr 8;5:144. doi: 10.3389/fmicb.2014.00144

Ventorino V, Sannino F, Piccolo A, Cafaro V, Carotenuto R, Pepe O (2014) *Methylobacterium populi* VP2: Plant growth-promoting bacterium Isolated from a highly polluted environment for polycyclic aromatic hydrocarbon (PAH) biodegradation. *The Scientific World Journal* 2014:, Article ID 931793, <http://dx.doi.org/10.1155/2014/93179>

- 2015

Akter Z, Neumann G., Römheld V. (2015) Effects of Biofertilizers on Mn and Zn Acquisition and Growth of Higher Plant: a Rhizobox Experiment. *Journal of Plant Nutrition* 38: 596-608. DOI:10.1080/01904167.2014.934478

Geistlinger J, Zwanzig J, Heckendorff S, Schellenberg I (2015) SSR Markers for *Trichoderma virens*: Their evaluation and application to Identify and quantify root-endophytic strains. *Diversity* 7: 360-384; doi:10.3390/d7040360

Imran M, Kolla M, Römheld V, Neumann G (2015) Impact of nutrient seed priming on germination, seedling development, nutritional status and grain yield of maize. *Journal of Plant Nutrition*, 38:12, 1803-1821, DOI:10.1080/01904167.2014.990094

Leiser WL, Olatoye MO, Rattunde FW, Neumann G, Weltzien E, Haussmann BIG (2015) No need to breed for enhanced colonization by arbuscular mycorrhizal fungi to improve low-P adaptation of West African sorghums. *Plant Soil* DOI 10.1007/s11104-015-2437-2441.

- 2016

Bradáčová K, Weber NF, Morad-Talab N, Asim M, Imran M, Weinmann M, Neumann G (2016) Micronutrients (Zn/Mn), seaweed extracts, and plant growth-promoting bacteria as cold-stress protectants in maize. *Chem. Biol. Technol. Agric.* 3:19 DOI 10.1186/s40538-016-0069-1

Di Stasio, E., Maggio, A., Ventrino, V., Pepe, O., Raimondi, G., De Pascale, S. (2016) Free-living (N₂)-fixing bacteria as potential enhancers of tomato growth under salt stress. *Acta Horticulturae*, in press.

Hanc, A., Boucek, J., Svehla, P., Dreslova, M., Tlustos, P. (2016) Properties of vermicompost aqueous extracts prepared under different conditions. *Environmental Technology* (published online at <http://dx.doi.org/10.1080/09593330.2016.1231225>).

Lekfeldt JDS, Rex M, Mercl F, Kulhánek M, Tlustoš P, Magid J, de Neergaard A (2016) Effect of bioeffectors and recycled P-fertiliser products on the growth of spring wheat. *hem. Biol. Technol. Agric.* 3:22 DOI 10.1186/s40538-016-0074-4

Nebbioso A, De Martino A, Eltlbany N, Smalla K, Piccolo A (2016) Phytochemical profiling of tomato roots following treatments with different microbial inoculants as revealed by IT-TOF mass spectrometry. *Chemical and Biological Technologies in Agriculture*20163:12 DOI: 10.1186/s40538-016-0063-7

Nkebiwe PM, Weinmann M, Müller T (2016) Improving fertilizer-depot exploitation and maize growth by inoculation with plant growth-promoting bacteria: from lab to field. *Chemical and Biological Technologies in Agriculture*3:15 DOI: 10.1186/s40538-016-0065-5

Sánchez-Esteva S, Gómez-Muñoz B, Jensen LS, de Neergaard A, Magid J (2016) The effect of *Penicillium bilaii* on wheat growth and phosphorus uptake as affected by soil pH, soil P and application of sewage sludge. *Chemical and Biological Technologies in Agriculture* 3:21 DOI: 10.1186/s40538-016-0075-3

Selby C, Carmichael E, Sharma HSS (2016) Bio-refining of perennial ryegrass (*Lolium perenne*): evaluation of aqueous extracts for plant defence elicitor activity

using French bean cell suspension cultures. Chemical and Biological Technologies in Agriculture 3:11 DOI: 10.1186/s40538-016-0061-9

Sharma HSS, Selby C, Carmichael E, McRoberts C, Rao JR, Ambrosino P, Chiurazzi M, Pucci M, Martin T (2016) Physicochemical analyses of plant biostimulant formulations and characterisation of commercial products by instrumental techniques. Chemical and Biological Technologies in Agriculture 3:13 DOI: 10.1186/s40538-016-0064-6

Viscardi S., Venterino V., Duran P., Maggio A., De Pascale S., de la Luz Mora M., Pepe O. Assessment of plant growth promoting activities and abiotic stress tolerance of Azotobacter chroococcum strains for a potential use in sustainable agriculture. Journal of Soil Science and Plant Nutrition. In press.

Other Publications

Biró B (2016) Baktériumtrágyák és bioeffektor termékek a talaj klímahatásai ellen. Mikroorganizmusok a növény-talaj rendszerben. (Biofertilizers and bioeffectors in soil-plant systems) Agrarhírnök 2: 14-15

Biró B (2016) A talajok precíziós baktériumtrágyázásának lehetőségei és alapelvei. (Precision bacterial fertilization of soils) . Haszon Agrár Magazin 10: 12-16

Biró B (2016) Törpék a föld alatt. A mikrobiális talajoltás szempontjai, határai, hatásai. Talajélet különszám. Agrárágazat 17: 22-26.