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Indian Journal of Ecology • Volume 47, Issue 3, Pages 624 - 629 • September 2020

Economic efficiency of applying environmentally friendly fertilizers in production technologies in the South of Ukraine

Domaratskiy Ye. [✉](#); Kozlova O.; Kaplina A.
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* Kherson State Agrarian and Economic University, Stritens'ka str. 23, Kherson, 73006, Ukraine

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The study presents economic substantiation of applying environmentally friendly plant growth stimulators in combination with biological fungicides in sunflower production under conditions of the South of Ukraine. The field research was conducted at Kherson State Agricultural University (Ukraine) in 2016-2018 under conditions of dark chestnut alkaline soils with the humus content of 2.5% in the plough layer. The results of the three-year field research prove that the net profit reached the absolute maximum in the variant of the hybrid LG 5580 under conditions of applying the bio-fungicide Fitotsyd-r with the stimulator Ahrostymulin at the stage of budding and amounted to \$1081/ha. In this case the cost price was the least-\$141.6/ha, and the profitability level was the highest-196%. In the areas sown with the hybrid Tunca the variant with the combination of Fitotsyd-r and the growth stimulator Ahrostymulin also provided a positive result, but it yielded a little to the combination of the preparations Fitosporyn /Ahrostymulin: the net profit was \$579.7/ha, the price cost made \$203.4/ha and the profitability was 106 %. On the whole this analysis makes it possible to maintain that additional costs related to purchasing and applying fertilizers are totally compensated owing to the cost of an increase in the yield. © 2020 Ecological Society of India. All rights reserved.

Author keywords

Environmentally friendly fertilizers; Net profit; Product cost; Production costs; Profitability; Sunflower

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- Adnan, M., Islam, W., Shabbir, A., Khan, K.A., Ghranh, H.A., Huang, Z., Chen, H.Y.H., (...), Lu, G.-D. **Plant defense against fungal pathogens by antagonistic fungi with Trichoderma in focus**
(2019) *Microbial Pathogenesis*, 129, pp. 7-18. Cited 88 times.
<http://www.elsevier.com/locate/micpath>
doi: 10.1016/j.micpath.2019.01.042
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- Kour, D., Rana, K.L., Yadav, A.N., Yadav, N., Kumar, M., Kumar, V., Vyas, P., (...), Saxena, A.K. **Microbial biofertilizers: Bioresources and eco-friendly technologies for agricultural and environmental sustainability**
(2020) *Biocatalysis and Agricultural Biotechnology*, 23, art. no. 101487. Cited 189 times.
<http://www.journals.elsevier.com/biocatalysis-and-agricultural-biotechnology/>
doi: 10.1016/j.bcab.2019.101487
[View at Publisher](#)
- Domaratskiy, E.O., Bazalyi, V.V., Domaratskiy, O.O., Dobrovol'skiy, A.V., Kyrychenko, N.V., Kozlova, O.P. **Influence of mineral nutrition and combined growth regulating chemical on nutrient status of sunflower (Open Access)**
(2018) *Indian Journal of Ecology*, 45 (1), pp. 126-129. Cited 9 times.
<http://indianecologicalsociety.com/society/indian-ecology-journals/>
- Domaratskiy, Y., Berdnikova, O., Bazalyi, V., Shcherbakov, V., Gamayunova, V., Larchenko, O., Domaratskiy, A., (...), Boychuk, I. **Dependence of winter wheat yielding capacity on mineral nutrition in irrigation conditions of southern steppe of Ukraine**
(2019) *Indian Journal of Ecology*, 46 (3), pp. 594-598. Cited 8 times.
<http://indianecologicalsociety.com/society/indian-journal-ecology/?yr=2019&issue=Issue%203&volume=Volume%2046>
- GOSWAMI, M., DEKA, S. **Plant growth-promoting rhizobacteria—alleviators of abiotic stresses in soil: A review**
(2020) *Pedosphere*, 30 (1), pp. 40-61. Cited 134 times.
<http://pedosphere.issas.ac.cn>
doi: 10.1016/S1002-0160(19)60839-8
[View at Publisher](#)
- Hanserd, O.S., Cherubini, F., Øgaard, A.F., Müller, D.B., Brattebø, H. **Choice of mineral fertilizer substitution principle strongly influences LCA environmental benefits of nutrient cycling in the agri-food system**
(2018) *Science of the Total Environment*, 615, pp. 219-227. Cited 39 times.
www.elsevier.com/locate/scitotenv
doi: 10.1016/j.scitotenv.2017.09.215
[View at Publisher](#)
- Jaspers, P., Kangasjärvi, J. **Reactive oxygen species in abiotic stress signaling**
(2010) *Physiologia Plantarum*, 138 (4), pp. 405-413. Cited 389 times.
doi: 10.1111/j.1399-3054.2009.01321.x
[View at Publisher](#)
- Kumar, A., Pathak, A.K., Guria, C. **NPK-10:26:26 complex fertilizer assisted optimal cultivation of Dunailla tertiolecta using response surface methodology and genetic algorithm**
(2015) *Bioresource Technology*, 194, pp. 117-129. Cited 24 times.
www.elsevier.com/locate/biortech
doi: 10.1016/j.biortech.2015.06.082
[View at Publisher](#)
- Moklyachuk, L., Furdychko, O., Pinchuk, V., Mokliachuk, O., Draga, M. **Nitrogen balance of crop production in Ukraine**
(2019) *Journal of Environmental Management*, 246, pp. 860-867. Cited 8 times.
<http://www.elsevier.com/locate/jenvman>
doi: 10.1016/j.jenvman.2019.05.108
[View at Publisher](#)
- Rady, M.M. **A novel organo-mineral fertilizer can mitigate salinity stress effects for tomato production on reclaimed saline soil**
(2012) *South African Journal of Botany*, 81, pp. 8-14. Cited 54 times.
doi: 10.1016/j.sajb.2012.03.013
[View at Publisher](#)
- Rostami, S., Azhdarpoor, A. **The application of plant growth regulators to improve phytoremediation of contaminated soils: A review**
(2019) *Chemosphere*, 220, pp. 818-827. Cited 170 times.
www.elsevier.com/locate/chemosphere
doi: 10.1016/j.chemosphere.2018.12.203
[View at Publisher](#)
- Siddiqi, K.S., Husen, A. **Plant response to strigolactones: Current developments and emerging trends**
(2017) *Applied Soil Ecology*, 120, pp. 247-253. Cited 40 times.
www.elsevier.com/locate/apsoil
doi: 10.1016/j.apsoil.2017.08.020
[View at Publisher](#)
- Small, C.C., Degenhardt, D. **Plant growth regulators for enhancing revegetation success in reclamation: A review**
(2018) *Ecological Engineering*, 118, pp. 43-51. Cited 58 times.
www.elsevier.com/locate/ecoleng
doi: 10.1016/j.ecoleng.2018.04.010
[View at Publisher](#)
- Whipps, J.M. **Developments in the Biological Control of Soil-borne Plant Pathogens**
(1997) *Advances in Botanical Research*, 26 (C), pp. 1-134. Cited 234 times.
doi: 10.1016/S0065-2296(08)60119-6
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Domaratskiy, Ye., Kherson State Agrarian and Economic University, Stritens'ka str. 23, Kherson, Ukraine; email: jdomar1981@gmail.com

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