

Ключевые слова автора
из 1 Темы SciVal

Скачать Печать Сохранить в PDF Сохранить в список Создать библиографию

Ecological Engineering and Environmental Technology • Открытый доступ • Том 25, Выпуск 2, Страницы 324 - 332 • 2024

Resource-Saving Measures to Improve Soil Fertility and Increase Plant Productivity Through the Use of Straw

Gamayunova, Valentina^a✉; Khonenko, Lubov^a; Kovalenko, Oleg^a; Baklanova, Tetiana^b
Сохранить всех в список авторов

^a Mykolaiv National Agrarian University, Georgiya Gongadze Str., 9, Mykolaiv, 54008, Ukraine
^b Kherson State Agrarian and Economic University, Streetenska Str., 23, Kherson, 73006, Ukraine

Опции полного текста Экспорт

Тип документа
Статья - Gold Open Access

Тип источника
Журнал

ISSN
27197050

DOI
10.12912/27197050/177072

Издатель
Polskie Towarzystwo Inzynierii Ekologicznej (PTIE)

Язык оригинала
English

Смотреть меньше

Краткое описание

Ключевые слова автора

Темы SciVal

Краткое описание
Highly productive soils in Ukraine have been losing their main quality indicators in the last decade. This is due to the violation of basic agricultural laws, particularly in the selection of agricultural crops in crop rotation, climate change, and other negative manifestations. Successful farming in the South Steppe zone of Ukraine significantly depends on moisture conditions, specifically the amount of precipitation during plant vegetation and initial moisture reserves during sowing. The first limiting factor for crop yields in arid regions is moisture. Depleted and compacted soils are unable to accumulate and retain it. Under such conditions, it is necessary to develop new approaches and implement the previously developed technological measures that would contribute to increasing the productivity of agricultural crops while preserving soil fertility. This involves enriching soils with organic matter, which structures them as well as increases their water absorption and retention capacity. In the absence of manure in the fields, it is advisable to use post-harvest residues of all crops and straw. These are the most resource-efficient and environmentally friendly measures. It has been determined that incorporating straw into the soil can increase the yield and quality of agricultural crops, as demonstrated in the cultivation of sorghum. © 2024, Polskie Towarzystwo Inzynierii Ekologicznej (PTIE). All rights reserved.

Ключевые слова автора
bio-preparations; crop yield; humus content; product quality; soil fertility; soil treatment measures; sorghum; use of straw as organic fertilizer

Темы SciVal

Темы SciVal для этого документа не найдены.

Пристатейные ссылки (27) Просмотреть в формате результатов поиска

Все Экспорт Печать Электронная почта Сохранить в PDF Создать библиографию

1 Alternative measures to restore soil fertility in modern farming conditions (accessed: 2.01.2022) <https://khoda.gov.ua/alternativni-zahodi-v%D1%96ditvorennya-rodjuchost%D1%96-grunt%D1%96v--v-suchasnih-umovah-gospodarjuvannja>

2 Balyuk, S.A., Medvedev, V.V., Vorotintseva, L.I., Shimei, V.V. Modern problems of soil degradation and measures to achieve its neutral level (2017) *Bulletin of Agrarian Science*, 8, pp. 5-11. Цитировано 8 раз.

3 Gamajunova, V. Sustainability of soil fertility in the Southern Steppe of Ukraine, depending on fertilizers and irrigation (2017) *Soil Science Working for a Living: Applications of Soil Science to Present-Day Problems*, pp. 163-166. Цитировано 7 раз. <http://www.springer.com/in/book/9783319454160> ISBN: 978-331945417-7; 978-331945416-0 doi: 10.1007/978-3-319-45417-7_14 View at Publisher

4 Gamayunova, V.V., Kovalenko, O.A., Khonenko, L.G. Modern approaches to agricultural industry management on the basis of biologization and resource conservation (2018) *Collective monograph*, 324, pp. 232-241. Edited by P.V. Pysarenko, T.O. Chaika, I.O. Yas-nolob. Poltava PDAU

5 Gamajunova, V., Panfilova, A., Kovalenko, O., Khonenko, L., Baklanova, T., Sydiakina, O. Better management of soil fertility in the southern steppe zone of Ukraine (2021) *Soils Under Stress: More Work for Soil Science in Ukraine*, pp. 163-171. Цитировано 7 раз. <https://link.springer.com/book/10.1007/978-3-030-68394-8> ISBN: 978-303068394-8; 978-303068393-1 doi: 10.1007/978-3-030-68394-8_16 View at Publisher

6 Gamayunova, V., Honenko, L., Baklanova, T., Pilipenko, T. Current Trends in Sorghum Use, Grain Yield and Water Consumption Depending on the Hybrid Composition (2023) *Ecological Engineering and Environmental Technology*, 24 (6), pp. 211-220. <http://www.ecoet.com/Archive> doi: 10.12912/27197050/168451 View at Publisher

7 Gamayunova, V., Sydiakina, O. The problem of nitrogen in modern agriculture (2023) *Ukrainian Black Sea Region Agrarian Science*, 27 (3), pp. 46-61.

8 Hospodarenko, H., Prokopchuk, I., Stasinevich, A., Boyko, V. Influence of fertilizer application ratio on field crop rotation effectiveness (2019) *Scientific Horizons*, (3), pp. 80-86. Цитировано 2 раз. <https://sciencehorizon.com.ua/en/journals/3-76-2019/produktivnist-polovovi-sivozmini-za-riznikh-doz-i-sposovidostyem-dobriv> doi: 10.33249/2663-2144-2019-76-3-80-86 View at Publisher

9 Ivanchuk, M.D. Methods of processing plant residues (2022) *Agronomist*. (ac-cessed: 2.01.2022) <https://www.agronom.com.ua/sposoby-obrobittkuroslivnyh-reshtok/>

10 Karbivska, U., Kurgak, V., Gamayunova, V., Butenko, A., Malynka, L., Kovalenko, I., Onychko, V., (...), Pshychenko, O. Productivity and quality of diverse ripe pasture grass fodder depends on the method of soil cultivation (2020) *Acta Agrobotanica*, 73 (3), art. no. 7334. Цитировано 21 раз. <https://pbsociety.org.pl/journals/index.php/aa/article/download/aa.7334/7947> doi: 10.5586/AA.7334 View at Publisher

11 Kyryliuk, V.P. Influence of the long-term application of the basic soil cultivation systems on forming the weed component of winter wheat sows (2018) *Scientific Horizons*, (1), pp. 49-55. <https://sciencehorizon.com.ua/en/journals/1-6a-2018/vpliv-trivalogo-zastosuvannya-sistemy-osnovnogo-obrobittku-gruntu-na-formuvannya-bur-yanovogo-komponentu-positiv-pshyeni-tovimov> View at Publisher

12 Medvedev, V.V., Plesko, I.V., Nakiski, S.G., Titenko, G.V. The degradation of soils in the world, the experience of its prevention and overcoming (2018) *Kharkiv, a kind of stylish typography*, p. 168. Цитировано 3 раз.

13 Skrylnyk, Y.V., Hetmanenko, V.A., Kutova, A.M. Calculative models of humus balance as an indicator of agroecological stability of land use or-ganization (2018) *Scientific Horizons*, 7-8 (70), pp. 139-144. Цитировано 3 раз.

14 Olifirovych, V. O., Osadchuk, V. D., Chynychuk, O.S., Kravchenko, V.S. The accumulation of root mass of legumes and grasses depending on the composition of the grass mix and fertilizer (2018) *Her-ald of Agrarian Sciences*, 11, pp. 201-208. Цитировано 3 раз. <https://doi.org/10.31395/2405-8240-2018-93-1-201-208>

15 Ovcharuk, V.V. 2020a. Plant production by-products-an alternative to replenishing soil organic matter *Dynamics of the development of world science*, 9, pp. 781-788. Vancouver, Canada

16 Ovcharuk, V. Biomass potential of post-harvest residues as organic fertilizers (2020) *The scientific heritage*, 49, pp. 4-7.

17 Petrychenko, V.F., Hetman, N.Ya. Factors of increase of productivity of agrophytocenoses of perennial legumes in the conditions of the Right-bank Forest Steppe (2017) *FODDER and fodder produc-tion*, 84, pp. 3-10. Цитировано 2 раз.

18 Popov, S., Avramenko, S., Manko, K. (2022) *No manure-take straw! Agroexpert* (accessed: 2.01.2022) [https://btu-center.com/upload/images/stories/u_to_know/agroexp\(6\)14.pdf](https://btu-center.com/upload/images/stories/u_to_know/agroexp(6)14.pdf)

19 Sendetsky, V.M. Yield and quality indicators of maize grain for the combined application of straw and cover crops (2019) *Tavria Scientific Bulletin*, 105, pp. 147-154. Цитировано 2 раз.

20 Sydyakina, O.V. Efficiency of biodegraders in modern agrotechnologies. *Tavria Scientific Bulletin* (2021) *Agricultural Sciences*, 119, pp. 123-129.

21 Tkachuk, O.P., Ovcharuk, V.V. Ecological potential of leguminous crops in modern intensive crop rotation (2020) *Agriculture and Forestry*, 18, pp. 161-171.

22 Ushkarenko, V.O., Vozhegova, R.A., Goloborodko, S.P., Kokovikhin, S.V. (2013) *Statistical analysis of the results of field experiments in agriculture*, p. 381. Цитировано 5 раз. Kherson: Alliant

23 Ushkarenko, V.O., Vozhegova, R.A., Goloborodko, S.P., Kokovikhin, S.V. (2014) *Field research meth-odology: Textbook*, p. 448. Kherson: Hrin D.S

24 Vasilenko, M.H. Organic-mineral fertilizers and plant growth regulators in organic farming (2017) *Bulletin of Agrarian Science*, 2, pp. 11-18. Цитировано 5 раз. <https://doi.org/10.31073/agrovissnyk201702-02>

25 Veremeenko, S.I., Furmanets, O.A. Changes in the agrochemical properties of dark gray soil in the Western Ukrainian forest-steppe under the effect of long-term agricultural use. (Открытый доступ) (2014) *Eurasian Soil Science*, 47 (5), pp. 483-490. Цитировано 8 раз. <http://www.misk.rssi.ru/journals/soilsci.htm> doi: 10.1134/S106422931405024X View at Publisher

26 Veremeenko, S., Semenko, L. Modern Problems of Degradation of Soils - Tropical Aspect (Открытый доступ) (2019) *Scientific Horizons*, (1), pp. 69-75. Цитировано 8 раз. <https://sciencehorizon.com.ua/en/journals/1-7a-2019/suchasni-problemy-dyegradatsiyi-gruntiv-trofichniy-aspiekt> doi: 10.33249/2663-2144-2019-74-1-69-75 View at Publisher

27 Vozhegova, R.A., Lavrinenko, Yu.O., Malyarchuk, M.P. (2014) *Methods of field and laboratory research on irrigated lands*, p. 285. Цитировано 7 раз. Kherson: Hrin D.S

✉ Gamayunova, V.; Mykolaiv National Agrarian University, Georgiya Gongadze Str., 9, Mykolaiv, Ukraine; эл. почта gamajunovaz301@gmail.com © Copyright 2024 Elsevier B.V., All rights reserved.

Цитирования в о документах
Сообщайте мне, когда этот документ будет цитироваться в Scopus:
Задать оповещение о цитировании

Связанные документы
Influence of stubble biodestructor on soil microbiological activity and grain yield of winter wheat ((Triticum aestivum L.) Panfilova, A. (2021) *Notulae Scientia Biologicae*
Modern approaches to use of the mineral fertilizers preservation soil fertility in the conditions of climate change | СУЧАСНІ ПІДХОДИ ДО ЗАСТОСУВАННЯ МІНЕРАЛЬНИХ ДОБРИВ ЗА ЗБЕРЕЖЕННЯ ҐРУНТОВОЇ РОДЮЧОСТІ В УМОВАХ ЗМІНИ КЛІМАТУ Gamayunova, V., Khonenko, L., Baklanova, T. (2020) *Scientific Horizons*
Modern Problems of Degradation of Soils - Tropical Aspect | СУЧАСНІ ПРОБЛЕМИ ДЕГРАДАЦІЇ ҐРУНТІВ – ТРОПІЧНИЙ АСПЕКТ Veremeenko, S., Semenko, L. (2019) *Scientific Horizons*
Просмотр всех связанных документов исходя из пристатейных ссылок
Найти дополнительные связанные документы в Scopus исходя из следующего параметра:
Авторы > Ключевые слова >