**Global CA-CoP CONSERVATION AGRICULTURE COMMUNITY OF PRACTICE**

***for sustainable agriculture, land use and ecosystem management***

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1. [**Advances in Conservation Agriculture Volume 3 Adoption and Spread. Edited by A. Kassam. Burleigh Dodds, Cambridge, UK (2021).**](https://www.dropbox.com/s/czbny4132ra71bb/Conservation%20Agriculture%20Vol%203-R.pdf?dl=0)
2. [**Role of Earthworms in Soil Fertility Maintenance through the Production of Biogenic Structures. By Tunira Bhadauria and Krishan Gopal Saxena, Applied and Environmental Soil Science Volume 2010, Article ID 816073, 7 pages (2010). doi:10.1155/2010/816073**](https://www.dropbox.com/s/sd8bu2ww7gat5hk/Badauryia%20Earthworms.pdf?dl=0)
3. [**Climate change and society. By Alan K Betts, AIMS Geosciences, 7(2): 194–218 (2021). DOI: 10.3934/geosci.2021012**](https://www.dropbox.com/s/95e6d6si4torx33/climate%20change%20and%20society%5B3545%5D-1.pdf?dl=0)
4. [**Can Retention of Crop Residues on the Field Be Justified on Socioeconomic Grounds? A Case Study from the Mixed Crop-Livestock Production Systems of the Moroccan Drylands. By Tamer El-Shater and Yigezu A. Yigezu. Agronomy, 11, 1465 (2021).**](https://www.dropbox.com/s/q2duhjdp6zvx5oi/El-Sattar%20Residue%20retention%2C%20agronomy-11-01465-v2-1.pdf?dl=0)[**https://doi.org/10.3390/agronomy11081465**](https://doi.org/10.3390/agronomy11081465)
5. [**Can an incremental approach be a better option in the dissemination of conservation agriculture? Some socioeconomic justifications from the drylands of Morocco. By Yigezu A. Yigezu et al. Soil & Tillage Research, 212, 105067 (2021).**](https://www.dropbox.com/s/wnme7i1bcpxom98/Yigezu%20Increamental%20approach.pdf?dl=0)[**https://doi.org/10.1016/j.still.2021.105067**](https://doi.org/10.1016/j.still.2021.105067)
6. [**Socio-economic impacts of zero and reduced tillage in wheat fields of the Moroccan drylands By Yigezu A. Yigezu and Tamer El-Shater. Agricultural Economics 52: 645-663 (2021).**](https://www.dropbox.com/s/kaei400kbwxikd8/Yigezu%20Socioeconomic%20impact.pdf?dl=0)[**https://doi.org/10.1111/agec.12640**](https://doi.org/10.1111/agec.12640)
7. [**Legume-based rotations have clear economic advantages over cereal monocropping in dry areas Yigezu A. Yigezu. Agronomy for Sustainable Development, 39: 58 (2019).**](https://www.dropbox.com/s/galsiyjq5lar26j/Yigezu2019_Article_Legume-basedRotationsHaveClear.pdf?dl=0)[**https://doi.org/10.1007/s13593-019-0602-2**](https://doi.org/10.1007/s13593-019-0602-2)
8. [**Sustainable Energy Solutions in Agriculture. By Jochen Bundschuh & Guangnan Chen (eds). CRC Press, Taylor and Francis Group (2014).**](https://www.dropbox.com/s/ss73dq82e2t6nr4/engrp02_sustainable_energy_solutions_in_agriculture.pdf?dl=0)
9. [**Conservation Agriculture as a System to Enhance Ecosystem Services. By Somasundaram Jayaraman et al. Agriculture, 11, 718 (2021).**](https://www.dropbox.com/s/g7okevt90bowwjr/Jayaramamn%20CA%20and%20ES%20agriculture-11-00718-v2-1.pdf?dl=0)[**https://doi.org/10.3390/agriculture11080718**](https://doi.org/10.3390/agriculture11080718)
10. [**Potential of Conservation Agriculture modules for energy conservation and sustainability of rice-based production systems of Indo-Gangetic Plain region. By Rajiv Nandan et al. Environmental Science and Pollution Research, 28:246–261 (2021).**](https://www.dropbox.com/s/ay5eq2nav44v0zk/Nandan2021_Article_PotentialOfConservationAgricul.pdf?dl=0)[**https://doi.org/10.1007/s11356-020-10395-x**](https://doi.org/10.1007/s11356-020-10395-x)
11. [**Long‑term Conservation Agriculture and best nutrient management improves productivity and proftability coupled with soil properties of a maize–chickpea rotation. By Vijay Pooniya et al. Scientific Reports, 11:10386 (2021).**](https://www.dropbox.com/s/g047085xjnc3dsk/Pooniya%20Lon-term%20CA.pdf?dl=0) [**https://doi.org/10.1038/s41598-021-89737-9**](https://doi.org/10.1038/s41598-021-89737-9)
12. [**Building Soils for Better Crops: Ecological Management for Healthy Soils. By Fred Magdoff and Herold Van Es. Handbook Series 10. SARE and USDA (2021).**](https://www.dropbox.com/s/g047085xjnc3dsk/Pooniya%20Lon-term%20CA.pdf?dl=0)
13. [**A Life Cycle Assessment of Biomass Production from Energy Crops in Crop Rotation Using Different Tillage System. By Anna Vatsanidou et al. Sustainability, 12, 6978 (2020). doi:10.3390/su12176978**](https://www.dropbox.com/s/kms31rntr22siaz/Vatsanidou%20enrgey%20tillage.pdf?dl=0)
14. [**What is Regenerative Agriculture: A Review of Scholar and Practitioner Definition Based on Processes and Outcomes. By Peter Newton et al. Frontiers in Sustainable Food Systems, 4:577723 (2020). doi: 10.3389/fsufs.2020.577723**](https://www.dropbox.com/s/hluekhlm8i52s48/What%20is%20RA.pdf?dl=0)

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*Conservation Agriculture is an ecological approach to regenerative sustainable agriculture and ecosystem management based on the practical application of context-specific and locally adapted three interlinked principles of: (i) Continuous no or minimum mechanical soil disturbance (no-till seeding/planting and weeding, and minimum soil disturbance with all other farm operations including harvesting);  (ii) permanent maintenance of soil mulch cover (crop biomass, stubble and cover crops); and (iii) diversification of cropping system (economically, environmentally and socially adapted rotations and/or sequences and/or associations involving annuals and/or perennials, including legumes and cover crops).* *These practices are complemented with other good agricultural production and land management practices.* *Conservation Agriculture systems are present in all continents, involving rainfed and irrigated systems including annual cropland systems, perennial systems, orchards and plantation systems, agroforestry systems, crop-livestock systems, pasture and rangeland systems, organic production systems and rice-based systems. Conservation Agriculture systems operate regeneratively at multiple levels to harness a range of productivity, economic, environmental and social benefits as well as address local and global concerns related to food and water security, climate change, land degradation, biodiversity and smallholder agricultural development.* *Conservation Tillage, Reduced Tillage, Low tillage and Minimum Tillage are not Conservation Agriculture, and nor is No-Till on its own* (more at: <http://www.fao.org/conservation-agriculture>).

The 2015/16 CA area information available from: **[Global spread of Conservation Agriculture. By A. Kassam et al. International Journal of Environmental Studies. Published Online (2018).](https://www.dropbox.com/s/zfpkexyerbcs9n5/Global%20spread%20of%20C%20paper%20Corrected%20GENV_A_1494927_O.pdf?dl=0)**

The 2018/19 CA are information available at: [**CA Stat — CA Global (ca-global.net)**](https://www.ca-global.net/ca-stat)

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