



**Science
Societies**

Paper of the Year Finalists Named for Society Flagship Journals

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The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) are pleased to announce the finalists for the paper of the year for each Society through their three flagship journals: *Agronomy Journal* (ASA), *Crop Science* (CSSA), and the *Soil Science Society of America Journal* (SSSAJ). Authors of the winning papers will be acknowledged during an awards ceremony at the 2024 ASA, CSSA, and SSSA International Annual Meeting in San Antonio Texas, Nov. 10–13, 2024.

The process for being acknowledged as a finalist or receiving this award starts with you submitting your work to one of the flagship journals our Societies.

Following submission, your paper will be reviewed by experts who have the goal of providing constructive suggestions. Whether the paper is accepted or rejected, we believe that the reviews will help you improve the quality of the paper. Following acceptance, our Societies may promote your work through various means such as webinars, video summaries, plain language summaries, podcasts, awards, social media, magazine articles, and emails.

Published papers for the prior two years are considered for the Society Award for paper of the year. Finalists for this award are selected based on the number of citations and full-text views. The final selection for this award is made by a committee that includes the journal Editor, Technical Editors, and Editor-in-Chief and an additional Society member appointed by the president for a given Society who evaluate the selected works for clarity, originality, and importance. All finalist papers are truly outstanding, and they represent less than 1% of the submitted papers. We encourage you to read these papers.

In 2024, the paper of the year finalists were selected from 521 papers (from *Agronomy Journal*) for the ASA Society Award, 422 papers (from *Crop Science*) for the CSSA Society Award, and 230 papers (from the *Soil Science Society of America Journal*) for the SSSA Society Award.

Finalists for the ASA Society Award for Paper of the Year

Finalists for this award are chosen from ASA's flagship journal, *Agronomy Journal*.

The journal publishes reviews and original research in agriculture, natural resources, soil science, crop science, agroclimatology, agronomic modeling, production agriculture, crop genetics, plant breeding, and instrumentation.

Soybean Yield Response to Sulfur and Nitrogen Additions Across Diverse U.S.

Environments by authors Brooks, K., Mourtzinis, S., Conley, S.P., Reiter, M.S., Gaska, J., Holshouser, D.L., Irby, T., Kleinjan, J., Knott, C., Lee, C., Lindsey, L., Naeve, S., Ross, J., Singh, M.P., Vann, R., & Matcham, E. Read it here: <https://doi.org/10.1002/agj2.21216>

Cover Cropping and Conservation Tillage Improve Soil Health in the Southeastern

United States by authors Farmaha, B.S., Sekaran, U., & Franzluebbers, A.J. Read it here: <https://doi.org/10.1002/agj2.20865>

Filtering, Editing, and Cropping Yield Maps in a R Environment With the Package

cleanRfield by authors Matcham, E.G., Matias, F., Luck, B.D., & Conley, S.P. Read it here: <https://doi.org/10.1002/agj2.21055>

A Global Meta-Analysis of Cover Crop Response on Soil Carbon Storage Within a

Corn Production System by authors Joshi, D.R., Sieverding, H.L., Xu, H., Kwon, H., Wang, M., Clay, S.A., Johnson, J.M., Thapa, R., Westhoff, S., & Clay, D.E. Read it here: <https://doi.org/10.1002/agj2.21340>

Soil Organic Carbon Stock Is Improved by Cover Crops in a Tropical Sandy Soil by authors Calonego, C.F.d.S., Rodriques, D.R., Silva, G.F.d, Echer, F.R., & Calonego, J.C. Read it here: <https://doi.org/10.1002/agj2.21019>

Artificial Intelligence in Farming: Challenges and Opportunities for Building Trust by authors Gardezi, M., Joshi, B., Rizzo, D.M., Ryan, M., Prutzer, E., Brugler, S., & Dadkhah, A. Read it here: <https://doi.org/10.1002/agj2.21353>

Simulating the Effect of Climate Change on Barley Yield in Ethiopia With the DSSAT CERESBarley model by authors Gardi, M.W., Memic, E., Zewdu, E., & Graeff-Hönniger, S. Read it here: <https://doi.org/10.1002/agj2.21005>

Improving Maize Sustainability With Partial Replacement of N Fertilizers by Inoculation With *Azospirillum brasilense* by authors Hungria, H., Barbosa, J.Z., Rondina, A.B.L., & Nogueira, M.A. Read it here: <https://doi.org/10.1002/agj2.21150>

Detection of Rice Plant Disease Using AdaBoostSVM Classifier by authors Kumar, K., & Kannan, E. Read it here: <https://doi.org/10.1002/agj2.21070>

Maize–Soybean Intercropping: A Bibliometric Analysis of 30 Years of Research Publications by authors Feng, L., Tang, H., Pu, T., Chen, G., Liang, B., Yang, W., & Wang, X. Read it here: <https://doi.org/10.1002/agj2.21186>

Finalists for the CSSA Society Award for Paper of the Year

Finalists for this award are chosen from CSSA's flagship journal, *Crop Science*. The journal publishes reviews, interpretive articles, and original research on any aspect of crop science, including agronomy, physiology, and genetics.

Seven top-cited (excluding self-cites) and seven top-downloaded papers published in the past two years are the final candidates for the award. Among the 14 finalists below, two winners are being selected—one review article and one research paper.

Unoccupied Aerial Systems Imagery for Phenotyping in Cotton, Maize, Soybean, and Wheat Breeding by authors Herr, A.W., Carroll, M.E., Elango, C.D., Kar, S., Li, C., Jones, S.E., Carter, A.H., Murray, S.C., Paterson, A., Sankaran, S., Singh, A., & Singh, A.K. Read it here: <https://doi.org/10.1002/csc2.21028>

Safeguarding Plant Genetic Resources in the United States During Global Climate Change by authors Volk, G.M., Carver, D., Irish, B.M., Marek, I., Frances, A., Greene, S., Khoury, C.K., Bamberg, J., del Rio, A., Warburton, M.L., & Bretting, P.K. Read it here: <https://doi.org/10.1002/csc2.21003>

SSR-Based DNA Fingerprinting of Fruit Crops by authors Testolin, R., Messina, R., Cipriani, G., & Mori, G.D. Read it here: <https://doi.org/10.1002/csc2.20896>

Strawberry Breeding for Improved Flavor by authors Porter, M., Fan, Z., Lee, S., & Whitaker, V.M. Read it here: <https://doi.org/10.1002/csc2.21012>

Propagation and Cultivation Practices of Honeybush (*Cyclopia* spp.) for the Sustainable Production of an Export Quality Indigenous South African Tea by authors Karson, P.A., Lötze, E., Valentine, A.J., & Hoffman, E.W. Read it here: <https://doi.org/10.1002/csc2.20752>

Global Dependence on Corn Belt Dent Maize Germplasm: Challenges and Opportunities by authors Smith, J.S., Trevisan, W., McCunn, A., & Huffman, W.E. Read it here: <https://doi.org/10.1002/csc2.20802>

Short Stature Maize Reduced Wind Damage During the 2020 Midwestern Derecho, Improving Yields and Greenhouse Gas Outcomes by authors Barten, T.J., Kosola, K.R., Dohleman, F.G., Eller, M., Brzostowski, L., Mueller, S., Mioduszeewski, J., Gu, C.G., Kashyap, S., Ralston, L., Renaud, A., Hall, M., Mack, D., & Gillespie, K. Read it here:

<https://doi.org/10.1002/csc2.20823>

Iron Deficiency in Soybean by authors Merry, R., Dobbels, A.A., Sadok, W., Naeve, S., Stupar, R.M. & Lorenz, A.J. Read it here: <https://doi.org/10.1002/csc2.20661>

Review of Cool Season Turfgrass Water Use and Requirements: II. Responses to Drought Stress by authors Braun, R.C., Bremer, D. J., Ebdon, J.S., Fry, J. D., & Patton, A. J. Read it here: <https://doi.org/10.1002/csc2.20790>

The World Vegetable Center *Amaranthus* Germplasm Collection: Core Collection Development and Evaluation of Agronomic and Nutritional Traits by authors Schafleitner, R., Lin, Y., Dinssa, F.F., N'Danikou, S., Finkers, R., Minja, R., Abukutsa-Onyango, M., Nyonje, W. A. Lin, C., Wu, T., Sigalla, J. P., van Zonneveld, M., Hsiao, Y., Kumar, S., Wu, W., Wang, H. Lin, S. & Yang, R. Read it here: <https://doi.org/10.1002/csc2.20715>

Effect of Drought on Wheat Production in Poland Between 1961 and 2019 by authors Oleksiak, T., Spyroglou, I., Pacoń D., Matysik, P., & Rybka, K. Read it here: <https://doi.org/10.1002/csc2.20690>

Evaluation of Lodging Resistance in Rice Based on an Optimized Parameter From Lodging Index by authors Luo, X., Zefang W. L. Z., Dan, Z., Yuan, Z., Liang, T., Zhu, R., Hu, Z., Wu, X. Read it here: <https://doi.org/10.1002/csc2.20712>

Evaluation of Environment and Cultivar Impact on Lentil Protein, Starch, Mineral Nutrients, and Yield by authors Chen, C., Etemadi, F., Franck W., Franck S., Abdelhamid,

M.T., Ahmadi, J., Mohammed, Y.A., Lamb, P., Miller, J., Carr, P. M., McPhee, K., Zhou Y., Torabian S. & Qin R. Read it here: <https://doi.org/10.1002/csc2.20675>

Sustained Improvement in Tolerance to Water Deficit Accompanies Maize Yield Increase in Temperate Environments by authors Messina, C., Ciampitti, I. A., Berning, D., Bubeck, D., Hammer, G. & Cooper, M. Read it here: <https://doi.org/10.1002/csc2.20781>

Finalists for the SSSA Society Award for Paper of the Year

Finalists for this award are chosen from SSSA's flagship journal, the *Soil Science Society of America Journal*. The journal publishes basic and applied soil research covering all areas of soil science in agricultural, forest, wetlands, and urban settings. It provides an internationally recognized and comprehensive venue for soil scientists, biogeochemists, and agronomists to publish their research.

Carbon-Sensitive Pedotransfer Functions for Plant Available Water by authors Bagnall, D.K., Morgan, C.L.S., Cope, M., Bean, G.M., Cappellazzi, S., Greub, K., Liptzin, D., ... & Honeycutt, C.W. Read it here: <https://doi.org/10.1002/saj2.20395>

A Mechanistic Inquiry Into the Applicability of Permanganate Oxidizable Carbon as a Soil Health Indicator by authors Christy, I., Moore, A., Myrold, D., & Kleber, M. Read it here: <https://doi.org/10.1002/saj2.20569>

What Do Relationships Between Extractable Metals and Soil Organic Carbon Concentrations Mean? by authors Hall, S. J., & Thompson, A. Read it here: <https://doi.org/10.1002/saj2.20343>

An Evaluation of Nitrogen Indicators for Soil Health in Long-Term Agricultural Experiments by authors Liptzin, D., Rieke, E.L., Cappellazzi, S.B., Bean, G.M., Cope, M.,

Greub, K.L.H., Norris, C.E., ... & Honeycutt, C.W. Read it here:

<https://doi.org/10.1002/saj2.20558>

Positive Associations of Soil Organic Matter and Crop Yields Across a Regional Network of Working Farms by authors Oldfield, E. E.; Bradford, M. A., Augarten, A.J.,

Cooley, E. T., Radatz, A. M., Radatz, T., & Ruark, M.D. Read it here:

<https://doi.org/10.1002/saj2.20349>

Mapping of Soil Organic Carbon Using Machine Learning Models: Combination of Optical and Radar Remote Sensing Data by authors Zhou, Y., Zhao, X., Guo, X., & Li, Y.

Read it here: <https://doi.org/10.1002/saj2.20371>

A Mechanistic Inquiry Into the Applicability of Permanganate Oxidizable Carbon as a Soil Health Indicator by authors Christy, I., Moore, A. Myrold, D. & Kleber, M. Read it here: <https://doi.org/10.1002/saj2.20569>

Winners of each Society's Award for paper of the year will be recognized during this year's Annual Meeting in San Antonio in November. Please plan to attend the meeting to congratulate the winners.

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