



Science
Societies

Inside this issue

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By Matt Nilsson, Managing Editor of Magazines for ACSESS

Dear members: This issue of *CSA News* magazine contains our annual listing of theses and dissertations. For decades, ASA, CSSA, and SSSA have published thesis and dissertation titles of graduates in the agronomic, crop, soil, and related environmental science disciplines. This year, we received 165 submissions representing 62 universities. Congratulations to all of our master's and Ph.D. graduates.

In this issue, we also showcase photos from our 2021 Annual Meeting in November. Given the challenges of the pandemic, the Societies were exceptionally proud to supply access to premier agronomic, crop, and soil science through the Limited Virtual Annual Meeting and all the sessions in Salt Lake City. Thank you to all who worked together to create solutions to advance science.

In our Features this month, we examine what it will take to grow food on Mars. Understanding the soil—actually, regolith—will be very important, but we don't have Mars soils samples yet, and so researchers have been relying on simulated soils. While all the minerals and nutrients you would need for a productive soil have been detected on Mars, it remains to be seen whether they are bioavailable or in high enough amounts for food production. Next, we explore how rapid mutations could have implications for cannabis producers. Medicinal and recreational cannabis is typically clonally propagated from a mother plant through cuttings, but anecdotes from producers indicate that the quality of these clones doesn't always hold up as the mother plant ages. New research in *The Plant Genome* provides a first look at the accumulation of somatic mutations in cannabis, which lays the foundation for better management of cannabis mother plants. Finally, we examine the interacting impacts of tree species and fertilizer on soil health. For two decades, researchers in the Ozark Highlands have

cultivated a long-term agroforestry site with multiple tree species under different fertilizer regimes.

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