



American Society of Agronomy • Crop Science Society of America • Soil Science Society of America

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January 29, 2020

Docket Clerk
Marketing Order and Agreement Division
Specialty Crops Program, AMS, USDA,
1400 Independence Avenue SW, STOP 0237
Washington, DC 20250-0237

Re: Establishment of a Domestic Hemp Production Program
Docket Number: AMS-SC-19-0042, SC19-990-2 IR
Federal Register Effective Date: 10/31/2019
Federal Register Page Number: 58522-58564 (43 pages)

Dear Agriculture Officer,

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 18,000 scientists in academia, industry, and government, 12,500 Certified Crop Advisers (CCA), and 781 Certified Professional Soil Scientists (CPSS). We are the largest coalition of professionals dedicated to the agronomic, crop and soil science disciplines in the United States. As boots-on-the-ground experts working with farmers producing hemp, developing seeds, and benchmarking agronomic standards, we are pleased to submit comments on the establishment of a domestic hemp production program.

Hemp production represents a new opportunity for producers to supply a product with booming market demand, and growers across the country are anxious to capitalize on this new product despite the lack of agronomic supports, such as certified seeds and recommended agronomic practices. Our Societies' researchers are working quickly to provide the sound science that underpins good seeds and agronomic advice, and we welcome USDA's efforts to begin standardizing production regulations.

The Societies support national standards for THC testing in hemp, and USDA should make the standards available for the calibration of testing equipment. However, we object to the 0.3 percent THC threshold. It is scientifically arbitrary,¹ unnecessarily low, and burdensome to producers. **The threshold for THC should be at least 2 percent**, considering that marijuana plants confiscated by law enforcement routinely have THC concentrations of 12 percent or higher.² Additionally, national testing protocols should not include non-THC compounds that can convert to THC. This inclusion effectively lowers the 0.3 percent threshold even further.

¹ Small, Ernest, and Arthur Cronquist. "A practical and natural taxonomy for Cannabis." *Taxon* (1976): 405-435.

² McCullough, Jolie. "Marijuana Prosecutions in Texas Have Dropped by More than Half since Lawmakers Legalized Hemp." *The Texas Tribune*, The Texas Tribune, 3 Jan. 2020, www.texastribune.org/2020/01/03/texas-marijuana-prosecution-drop-testing-hemp/.

The Societies also recommend adjusting the proposed 15-day testing schedule, which is unreasonably short and will lead to the need for multiple testing as harvests are often delayed by weather. **A 28-day window is more feasible.** Even a three-week window will likely lead to the destruction of many harvests since the rate of THC increase is variable. The combination of adjusting the testing schedule to three or four weeks before harvest and increasing the THC threshold to 2 percent will give well-needed flexibility to producers without the risk of creating a crop that could be used as an illicit narcotic.

When farmers inadvertently produce hemp with too much THC, the Societies agree the crop should be destroyed. But there are multiple options beyond burning that could be employed. For hemp grown for fiber, an in-field retting, or soaking, step drops the levels of THC in the harvested fiber, and this could be used as a step for other cultivars. Composting, or incorporating the crop into the soil would conserve carbon and should also be considered a form of crop destruction.

The Societies agree with USDA that states should have the flexibility to administer their own procedures for sampling and testing. An area of concern, however, is the requirement for DEA certified labs to perform the testing. While this is not an issue for some states, others, such as Missouri and Oregon, have no such labs. In fact, there are only 40 DEA-approved labs in the country, clustered in just 21 states.³ The DEA certification process is time-consuming, and the likely sample backlog from sending samples out of state in the interim would create uncertainty for growers and complicate harvests. It is also unclear whether it is legal to send samples out of state at all. Furthermore, DEA certified labs charge a premium for testing that would make academic research needlessly expensive. Considering there is no difference between the testing done for permitting and that done for research, the Societies see no reason to require DEA certification. **States without DEA certified labs and academic researchers alike would benefit from a state certification program for local labs.**

Lastly, **the Societies hope USDA does not abandon its intention to certify hemp seeds.** Certifications need not indicate specific THC levels at maturity. States may adopt national certification standards or modify them, but farmers would indeed benefit from national certifications that attest to varietal identity and uniformity. Currently, even a single lot of seeds with the same cultivar label may grow into plants that look and behave strikingly different.

There is no doubt that more research is needed on each of these issues. Crop rotations, nutrient management, and pesticide applications are necessary, but there is little agronomic research available to guide management. Investments in breeding are needed to standardize seeds. Research on proper disposal methods of an accidentally “hot” crop that ensures the THC levels decrease while maintaining some value for farmers is also vital, especially with such an unreasonably low, 0.3 percent threshold, which could reasonably be raised to 2 percent. **There is currently no NIFA Request for Applications for hemp research, nor is hemp included in the Specialty Crops Research Initiative, and both of these issues should be remedied in order to address these wide knowledge gaps in hemp production.**

Thank you for accepting these comments. The Societies stand ready to engage with USDA in the further development of these rules to enable safe and robust domestic hemp production.

³ <https://www.ams.usda.gov/rules-regulations/hemp/dea-laboratories>

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'N' followed by a 'G' and a long horizontal flourish.

Nick Goeser, CEO
American Society of Agronomy
Crop Science Society of America
Soil Science Society of America