

# The Future of Soil Judging: Creating a National Standard



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College Park Scholars Academic Showcase, May 9, 2025

#### Introduction

intercollegiate Soil Judging is a national competition that allows students with an interest in soil science to hone their field skills in identifying and describing soils. This is beneficial because knowing how to describe the land can help owners to understand what can be constructed on it. Each year, a new manual is produced by the hosting region, and students must adapt to a new set of rules and regulations. As a member of the AS425 Subcommittee, my job was to review previous contest materials and compile them into a mockup for a standardized national manual which could be re-used with slight modifications each year to reduce the contradictory changes that

occur in the contest manual year by year.



SCORECARD NATIONAL COLLEGIATE SOILS CONTEST SPRING 2025  Stevens Point  1. Soil Morphology									1				Contestant I.D. Site No. Horizons Describe to a depth of						cr	
Horizonation				Boundary			Texture	2		Color			Structure		Cons.	Soil Features			Score	
Mar Prefix (2)	Let.	Sub. (2)	No.	Lower Depth (on)	Dist.	Sand % (2)	Clay %	OF Mod.	Sand Mod.	Class (2)	Hue (2)	Value (2)	Chroma (2)	Grade (2)	Shape (2)	Moist Strength	Red Dept.	Conc.	Effens.	Possible (40)
II. Soil Profile C Hydraulic I Surface (5) High Mod. Low		dic Con	Characteristics Conductivity Limiting Layer (5) High Mod. Low			gpdm² (3)			Effective Soil Depth (5)  V. shallow (<25 cm) Shallow (25 to 49 cm) Mod. deep (50 to 99 cm) Deep (100 to 150 cm) Very deep (>150 cm)			Water Retention Difference					Score: Soil Wetness Class (9)  1 = (< 25 cm) 2 = (25 to 49 cm) 3 = (50 to 99 cm) 4 = (100 to 150 cm) 5 = (> 156 cm)			

#### **Activities:**

A soil judging manual has six sections, each with numerous subsections that detail how to translate observations onto a scorecard (Pictured above). It was my responsibility to revise the latter half of the manual, the last three sections. I utilized manuals from 2018-2025, from various regions including Maryland, Iowa, California, and the site for this year's contest, Wisconsin. In total, nine manuals were used to create the first draft of the national standard. For each subsection, I would read each of the nine manuals and take notes on how they differed- whether by technical definition or by how something would be scored in the contest- and ultimately decide which manuals had the best definitions or regulations. "The best" ultimately meant the most descriptive and clear definition with exact details on how observations should be marked on a scorecard.

#### **Site Information:**

Name of Site: University of Maryland, College Park (Remote work)

Address: University of Maryland College Park, 1126

Campus Dr, College Park, MD 20740 Supervisor: Dr. Brian Needelman **Mission**: To address issues surrounding standardization and broader participation for the National Colligate Soil Judging Competition.

**Issues on Site**: When a new manual is produced each year, students are forced to forget what they have learned and practiced and adjust to new regulations at each competition. Beyond the impact on students, coaches must review and revise contest materials on a yearly basis to ensure that the new rules are followed so no points are lost. Standardization increases contest efficiency and allows students to maintain the skills they develop between contests, which increases motivation for contest participation.

### Impact:

Like many agricultural extracurriculars, soil judging is a white-male dominated activity. Most of the schools that currently participate in the competition are ones that have years of experience- thus, schools that have never competed are discouraged from joining. Ideally, by compiling materials and making the contest more standardized, we hope that new schools will not be as intimidated, and at a broader scale issues surrounding biased demographics can begin to be addressed.

#### Future Work:

We are currently working on adjusting the mockup. The first draft was a compilation of copypasted sections from a handful of manuals. Our next steps include revising these sections to make them more cohesive and expanding on them. We have begun to ask ourselves: what would someone who knew nothing about the competition need to know? What areas are the most confusing? What contradictions can be revised? With this in mind, we have begun our second draft and will continue until the final version is approved by the national committee.



## Acknowledgments:

I would like to acknowledge Dr. Thomas Holtz and John Merck for directing the Science and Global Change program. Thank you to Dr. Brian Needelman for allowing me to work on this project, and for supporting me through my soil journey. Thank you to Noah Cheng for being a wonderful partner on this project.

