



United States Department of Agriculture



Soil and Plant
Science Division

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Soil Survey Interpretations Team, Report to Leadership

November 4, 2020 Robert R. Dobos

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Overview of the team:

- A **science group** handles the literature review and any other research required to develop the criteria needed to create the model
- A **model design, development and maintenance group** works in the NASIS client environment to assemble the properties, evaluations, and rules needed to make the model work
- A **testing group** examines the outputs generated from the interpretations that are being developed to assess the accuracy of the results and suggest ways to improve the predictions.
- A **documentation group** is tasked with assembling and publishing the metadata for each interpretation



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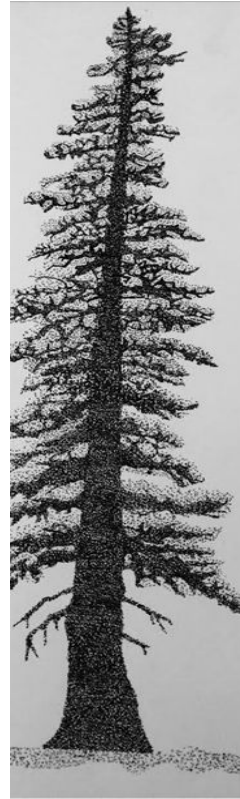
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What have we done?

- **COVID-19 Response**

- * Supply chain disruptions necessitated depopulation of livestock and dumping of milk
- * Developed and deployed interpretations for shallow burial of depopulated mortalities and emergency milk disposal
- * These are available on Web Soil Survey



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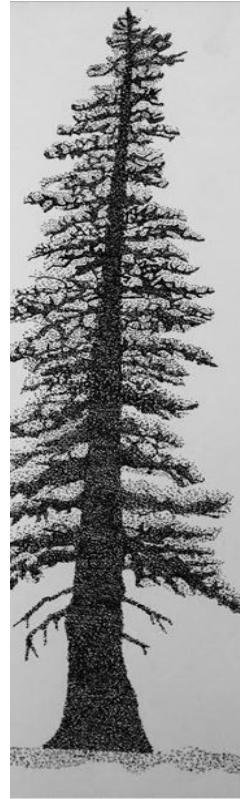


What have we done?

- **Training**

- * Provided a session of “Science of Interpretations”, which acts a science group meeting to develop the criteria new interpretations

- * Collaborated on a session of “Designing and Developing Interpretations”, which acts as the model design and development group activity



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What have we done?

- * Developed the html and report scripting to allow anyone to interact with new interpretations to facilitate the initiation of the testing group

https://nasis.sc.egov.usda.gov/NasisReportsWebSite/lmsreport.aspx?report_name=Interpretations_testing

- * Brought on a detail to work on some persistent problems in providing excellent documentation of interpretations

- * Collaborated with the Database Team to identify data voids that adversely affected data supplied to FSA



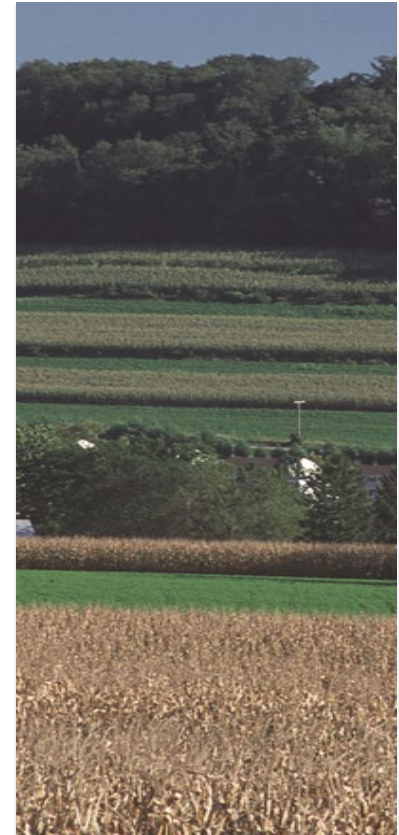
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Support of Agency Goals

- Continued creation of interpretations for conservation practice standards as screening tools
 - Currently, there are ten screening available for review and testing on the Interpretations Focus Team worksite
 - The most frequently use practice standards are modelled
 - Focus team activities, such as training sessions, are used to gather criteria and construct models
- Continued support of rapidly developing situations, such as the COVID-19 response, natural disasters, and anything else that can be informed with interpreted information



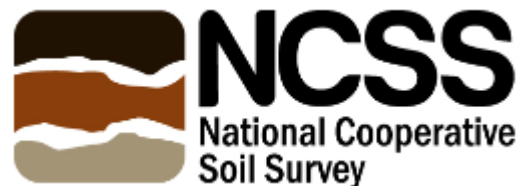
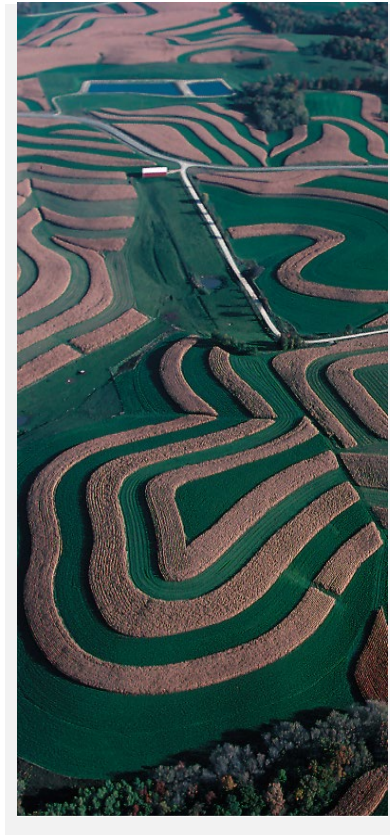
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Present and Future Collaboration

- * Working with the Digital Soil Mapping Team to develop an interpretation calculator using raster-based data, along with New Mexico State University and USGS staff
- * Working with CDC staff on a publication about using soil survey data to map habitat for the fungi that cause Valley fever
- * Continued interagency and interdisciplinary work on updating forestry interpretations
- * Introducing temporal aspects to soil survey interpretations, for example, monthly rutting hazard, that will be enhanced by Dynamic Soil Survey



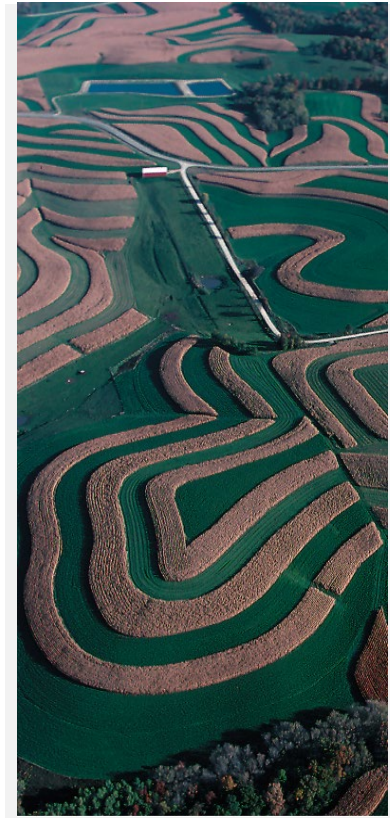
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Present and Future Collaboration

- * Work with the Research Team because many interpretations are worthy of a refereed journal article, but we need help with writing
- * Work with the Soil Survey Regions to use some of the dedicated TSS time to work on the designing and developing of interpretations
- * Work with the Training Team to promote learning about soil survey interpretations
- * Work with the Database Team to identify data voids and peculiarities
- * Work with the Dynamic Soil Properties team to explore ways of expediting the incorporation of DSPs into interpretations

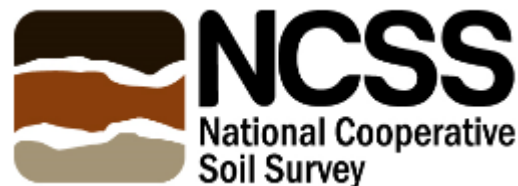
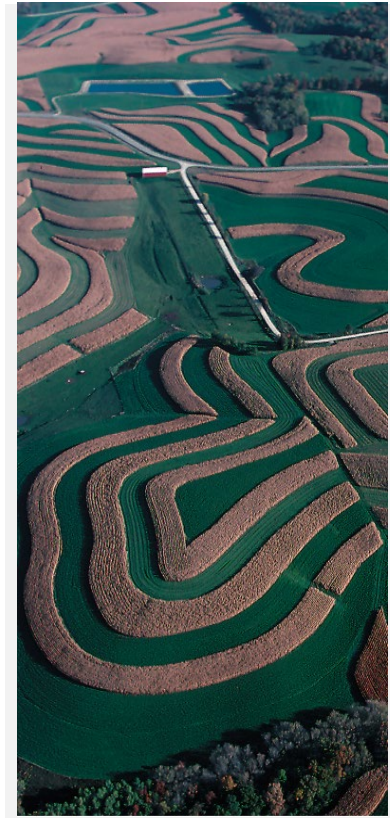


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Present and Future Collaboration

- * Continue to work with the states to develop and maintain state and regional interpretations
- * Working with NASIS Modernization to help in the creation of the enhanced Soil Interpretation Generator
- * Work with the Initial Mapping Team to identify interpretation products to address unique problems in these areas



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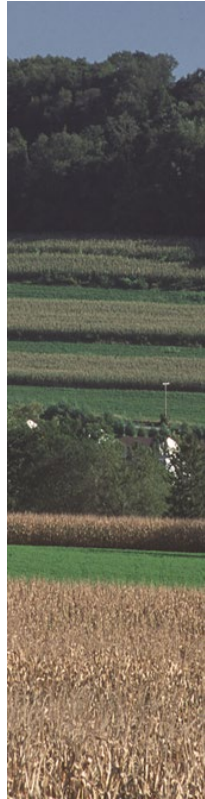
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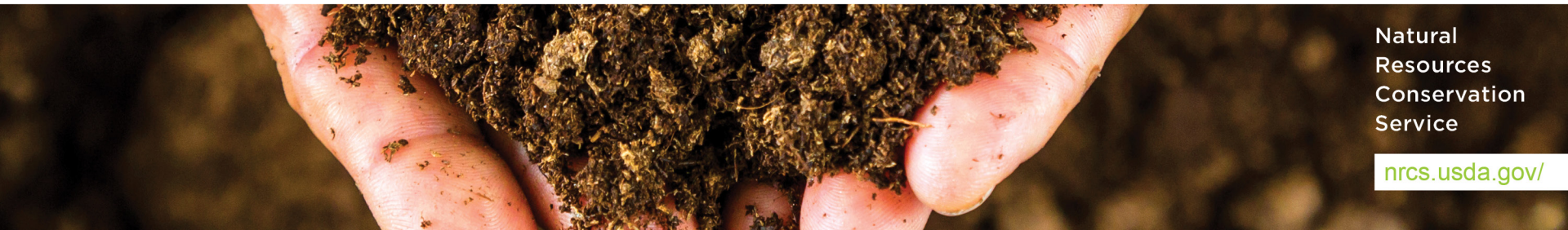
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