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Functional Soil Maps

New functional soil mapping technology integrates free data on soil characteristics to provide detailed, usable information for increasing efficiency in agricultural land management systems.

Soil maps provide visual information on the names and classes of soils present in a given area so that farmers can make more informed land management decisions. The USDA-MRCS Soil Survey offers these maps free online, but the information is very high level and provides little actual guidance on altering management strategies such as irrigation and pesticide application.

Researchers at Purdue University have developed a new technology that creates soil maps based on functional characteristics of the soil rather than visual or taxonomic characteristics. The technology combines freely available information about soil nutrient content, water content, elevation, altitude, soil structure, soil depth, etc. to create a highly detailed soil map that provides usable, functional information. The integration of this information into land management systems allows for irrigation adjustments, pesticide applications, and other agricultural or preservation activities.

To view a video related to this technology, click this link: http://www.youtube.com/watch?v=7alAHvhBZ9Q&list=UUWInoPCcLmFL5fIoOMbL3Jg

Advantages:

-Provides detailed functional information

-Increases the efficiency of agricultural land management systems

TRL: 5

Intellectual Property:

Provisional-Patent, 2014-05-21, United States | Utility Patent, 2015-05-21, United States

Technology ID

2014-OWEN-66764

Category

Agriculture, Nutrition, & AgTech/Precision Agriculture & Smart Farming

Agriculture, Nutrition, & AgTech/Regenerative Ag & Soil Health

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Keywords: functional soil mapping, precision agriculture, land management systems, irrigation adjustments, pesticide applications, agricultural efficiency, soil nutrient content, soil water content, soil structure, soil depth, Agriculture, Computer Technology, Soils