



# TECHNICAL NOTE

USDA

NATURAL RESOURCES CONSERVATION SERVICE

HAWAII

## Soils Technical Note - No. 7

### SOIL QUALITY INSTITUTE'S CATALOG OF PRODUCTS & INFORMATIONAL DOCUMENTS

This coversheet transmits a copy of a document which lists the products and informational documents available from the NRCS Soil Quality Institute.

The products and documents may be acquired via one or more of the following ways:

- Directly linking to the product or document (to view and/or print it) at the Soil Quality Institute website:  
<http://www.statlab.iastate.edu:80/survey/SQL/catalog.html>
- Obtaining the product or document by placing an order via fax or online.
- Using FTP to download the file.

A description of each product and document is also included.

## Soil Quality Institute's Catalog of Products & Informational Documents

(Click for product description)	Click on X to link to document	To obtain, place an order (fax or online)	Use FTP: to download file(s)	Project
<a href="#">Assessment of Soil Quality</a>	<u>X</u>			
<a href="#">County Economic, Agriculture, &amp; Environmental Health</a>				X
<a href="#">Intro to Microbiotic Crusts</a>		X		
<a href="#">Phosphorus in Agriculture</a>	<u>X</u>			
<a href="#">Quantification of Soil Quality (reference only)</a>				
<a href="#">Soil Biology Primer (available summer '98)</a>				
<a href="#">Soil Changes 18 Years of Protection From Grazing in Arizona Chaparral</a>		X		
<a href="#">Soil Climate Regimes of Pennsylvania</a>		X		
<a href="#">Soil Quality- A Multitude of Approaches</a>	<u>X</u>			
<a href="#">Soil Quality- Agronomy Tech Notes</a>	<u>X</u>			
<a href="#">Soil Quality Card Design Manuel (available summer'98)</a>				
<a href="#">Clipart</a>			X	
<a href="#">"The Soil Quality Concept" Booklet</a>		X		
<a href="#">Soil Quality Considerations in the Conversion of CRP Land to Crop Production</a>	<u>X</u>			
<a href="#">Soil Quality Kit (Instruction Manual)</a>	<u>X</u>		X	
<a href="#">Soil Quality Information Sheets</a>	<u>X</u>			
<a href="#">Soil Quality Institute Pamphlet</a>		X		
<a href="#">Soil Quality Reference Soils (Database)</a>	<u>X</u>			
<a href="#">Soil Quality Symbol (Clipart)</a>			X	
<a href="#">Soil Rating for Plant Growth (SRPG)-Report</a>			X	
<a href="#">"Soil Resilience/Soil Quality"Conference Presentation</a>	<u>X</u>			
<a href="#">TRAINING - Farmer Workshops for Locally Developed Conservation Tools (Soil Quality Cards)</a>				X

# ORDERING

FAX FORM -click to obtain a form to submit order by fax

<p><u>"Assessment of Soil Quality" Workshop Presentation</u></p>	<p>Discusses the assessment of soil quality at various levels of scale, ranging from the farm, or field level to the regional or national level. It reviews the definition of soil quality with a discussion of soil quality indicators, reference values, and soil quality assessments. The presentation was made at the workshop on Long-term Research on Soil, Water, and Nutrient Management, Columbus, Ohio (July, 1996). It is available from the website.</p>
<p>County Economic, Agriculture, and Environmental Health Index</p>	<p>Patterned after an indexing method developed by Gomez et al., 1996. The objective of this study is to explore using existing national databases like NRI and NASS statistics to evaluate counties on an MLRA basis with standards or thresholds unique to the agricultural community and natural resources in each MLRA. A pilot test of this procedure is underway. The partners in this study are the National Resources Inventory and Analysis Institute and the Soil Quality Institute with assistance from NRCS scientists in Temple, Texas. For additional information contact Lee Norfleet, SQI at (334) 844-4741, ext. 176 or Email <a href="mailto:norfleet@eng.auburn.edu">norfleet@eng.auburn.edu</a> or David Buland, NRIAI at (254)770-6522 or Email <a href="mailto:buland@brcsun0.tamu.edu">buland@brcsun0.tamu.edu</a>.</p>
<p>"Introduction to Microbiotic Crusts" Pamphlet [need to place an order]</p>	<p>This 13 page, color pamphlet discusses microbiotic crusts, including: "what they are, where they occur, what is their role, and how they are affected by disturbance." The pamphlet was developed by the Soil Quality Institute in cooperation with the Grazing Lands Technology Institute.</p>
<p><u>Phosphorus in Agriculture" Pamphlet</u></p>	<p>Describes the importance of phosphorus in plant growth and, the environmental impacts, and management of agricultural phosphorus (January, 1998).</p>
<p>"Quantification of Soil Quality" Paper [see referenced text]</p>	<p>Discusses various approaches to quantifying soil quality and recommends a framework for measuring and assessing soil quality. It reviews the definition, indicators, and indices of soil quality; minimum data sets; and effects of scale. This paper was prepared for an international symposium on Carbon Sequestration in Soils held in Columbus, OH. (July, 1996.) The reference to this paper is :  Seybold, C.A., M.J. Mausbach, D.L. Karlen, and H.H. Rogers. 1998. Quantification of soil quality. p. 387-404. In: R. Lal, J.M. Jimble, R.F. Follet, and B.A. Steward (eds.) Soil processes and the carbon cycle. Advances in Soil Science. Chapt, 27. CRC Press, Boca Raton, Florida.</p>
	<p>TAn introduction to the living soil system for NRCS field staff, partners, and customers. This full color set of 8 pamphlets describes the importance of soil organisms and the soil foodweb to soil</p>

<p><u>Soil Biology Primer</u></p>	<p>productivity, and water and air quality. It addresses how soil organisms are affected by management practices. The Primer is a collaborative effort of the SQI, the Conservation Technology Information Center, an Oregon State University soil ecologist and soil entomologist, an Ohio State University earthworm ecologist, and numerous other scientists. (Available December, 1998)</p>
<p>"Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral" [Paper Reference Only]</p>	<p>Results of a study that compared changes in physical and chemical properties of a chaparral soil protected from grazing for 18 years. It describes these changes relative to succession and threshold paradigms. The reference to this paper is: Brejda, John J 1997. Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral. The Southwestern Naturalist 42 (4): p. 478-487.</p>
<p>Soil Climate Regimes of Pennsylvania</p>	<p>Cooperative project of the Pennsylvania State Agriculture Experiment Station and Soil Quality Institute. The document summarizes the following soil climatology of Pennsylvania, a method to model and spatially estimate Pennsylvania's soil climate regimes, and derive agro-climate regions that define relatively homogeneous areas of soil climate and landscape that affect agronomic crop production.</p>
<p><u>"Soil Quality - A Multitude of Approaches" Presentation</u></p>	<p>Describes the soil quality concept and approaches to soil quality assessment. The presentation was the keynote address at the Kearney Foundation Symposium, "California Soil Quality: From Critical Research to Sustainable Management", (March, 1997).</p>
<p><u>Soil Quality-Agronomy Technical Notes</u></p>	<p>A series of 2 to 4-page documents describing the effects of conservation practices on soil quality. The notes are intended for NRCS field staff use. They are available from the web site: <a href="http://www.statlab.iastate.edu/survey/SQI/agronomy.shtml">http://www.statlab.iastate.edu/survey/SQI/agronomy.shtml</a> Topics: Cover and Green Manure Crop Benefits on Soil Quality (Technical Note #1) Conservation Crop Rotation Effects on Soil Quality (Technical Note #2) Effects of Residue Management, No-till on Soil Quality (Technical Note #3) Effect of Soil Quality on Nutrient Efficiency (Technical Note #4) Herbicides (Technical Note #5) Legumes and Soil Quality (Technical Note #6) Effects of Erosion on Soil Productivity and Soil Quality (Technical Note #7)</p>
<p>Soil Quality Card Design Guide</p>	<p>The Soil Quality Card Design Guide gives instructions and procedures for conducting farmer focus sessions to develop local Soil Quality/Health Cards. A card is a qualitative field assessment tools developed by farmers for farmers. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. Conservationists can use it in locally led conservation, education and information activities. The procedures and Guide were developed by the SQI in collaboration with Oregon State University, OSU Service, University of Maryland, and NRCS partners in state and field offices in OR, MD, MT, ND, and NM. (The Manual will be available on the Web fall 1998..</p>

 <p><u>Clip Art Soil Quality Clipart</u></p>	<p>The SQI designed several clipart images to represent soil and its many functions (infiltration, nutrient cycling, productivity, structural support, filtering and buffering, partitioning water and solute flow). Also available for free use is a set of black-and-white images depicting farmers using a soil quality/health card. The files are also available via anonymous ftp at <a href="ftp://ftp.nstl.gov/software/sqclip">ftp://ftp.nstl.gov/software/sqclip</a>.</p>
<p>"The Soil Quality Concept" booklet [place an order]</p>	<p>Contains eight key papers on the concepts of soil quality. It provides information and references on soil quality for NRCS staff to use in integrating soil quality with conservation planning and natural resource inventory activities. (October, 1996).</p>
<p><u>Soil Quality Considerations in the Conversion of CRP Land to Crop Production</u> Presentation</p>	<p>Discusses the beneficial effects of CRP on soil quality, the concerns of returning CRP land to crop production, and alternative systems to protect the soil quality benefits obtained from 10 years of grass cover. The presentation was made at the CRP-96 Conference, "Preparing for Future CRP Land Use in the Central and Southern Great Plains", Amarillo, TX (October, 1996).</p>
<p><u>Soil Quality Test Kit Guide</u></p>	<p>The Soil Quality Test Kit Guide, adapted from the ARS Soil Health Kit, is designed for use by NRCS field staff, SWCD's and ag consultants. Soil measurements made with the kit are pH, electrical conductivity, soil nitrate-N, bulk density, soil respiration, infiltration rate, aggregate stability, soil stability, earthworms, water quality and soil physical observations. The Guide includes instructions for conducting the tests and for building a kit as well as a section on interpretations for evaluating test results to accompany the kit.</p>
<p><u>Soil Quality Information Sheets</u></p>	<p>These one-page, full color information sheets are useful as an introduction to soil quality for employees, districts, ag consultants, producers and others. The National Soil Survey Center prepared the information sheets in cooperation with the Soil Quality Institute and the ARS National Soil Tilth Laboratory.</p> <p>Current topics include:</p> <ul style="list-style-type: none"> <li>Soil Quality - Introduction (April, 1996)</li> <li>Indicators for Soil Quality Evaluation (April, 1996)</li> <li>Soil Quality Indicators: Organic Matter (April, 1996)</li> <li>Soil Quality Indicators: Soil Crusts (April, 1996)</li> <li>Soil Quality Indicators: Aggregate Stability (April, 1996)</li> <li>Soil Quality Indicators: pH (May, 1998)</li> <li>Soil Quality Indicators: Infiltration (May, 1998)</li> <li>Soil Quality Resource Concerns: Soil Erosion (April, 1996)</li> </ul>

	<p>Soil Quality Resource Concerns: Sediment Deposition on Cropland (April, 1996)</p> <p>Soil Quality Resource Concerns: Compaction (April, 1996)</p> <p>Soil Quality Resource Concerns: Salinization (May, 1998)</p> <p>Soil Quality Resource Concerns: Pesticides (May, 1998)</p> <p>Soil Quality Resource Concerns: Available Water Capacity (May, 1998)</p> <p>Soil Quality Resource Concerns: Soil Biodiversity (May, 1998)</p> <p>For more information, contact Gary Muckel, National Soil Survey Center, (402) 437-4148 or Email gmuckel nssc600.nrcs.usda.gov.</p>
<p>Soil Quality Institute Pamphlet [place an order]</p>	<p>Describes the mission and vision of the Soil Quality Institute. It provides an introduction for NRCS and our conservation partners to the concept of soil quality, soil quality resource concerns, and implementation strategies to achieve soil quality.</p>
<p><u>Soil Quality Reference Soils Map</u></p>	<p>The Soil Quality Institute and Auburn University collaborated to establish a set of 27 soils for use as a standard reference set for soil quality research. The soils were selected on the basis of acreage, land use, economics, and environmental importance.</p>
<p><u>FTP "Soil Quality Symbol" Clipart</u></p>	<p>Artwork for soil quality was developed by the SQI and is available for use by anyone needing a symbol for soil quality. Please send a courtesy copy of all documents displaying this artwork to the SQI. The graphic files may be downloaded from a link on the SQI homepage. The files are also available via anonymous ftp at <a href="ftp://ftp.nstl.gov/software/sqsymbol">ftp://ftp.nstl.gov/software/sqsymbol</a>.</p>
<p><u>Soil Rating for Plant Growth (SRPG) - Report (ftp)</u></p>	<p>Details the computerized SRPG rating system for arraying soils according to their inherent productivity and suitability for crops. The system is suitable for national level bid evaluations. The report was developed for the Soil Quality Institute in conjunction with the National Soil Survey Center. For additional information, contact H. Ray Sinclair, Jr., NSSC, at (402) 437-5699.</p>
<p><u>"Soil Resilience/Soil Quality" Conference Presentation</u></p>	<p>Addresses the concept of soil resilience and its relationship to soil quality. It provides a review of the literature on the assessment and quantification of resilience. The presentation was made at the National Cooperative Soil Survey Conference in Baton Rouge, LA, (June, 1997).</p>
<p>Training: Farmer Workshops for Locally Developed Conservation Tools (Soil</p>	<p>This training session prepares NRCS field and state staff and Conservation Partners to conduct farmer-conservationist participatory workshops and to develop local soil quality/health cards. The basic principles of farmer participatory action and learning are presented. A step-wise approach to lead farmers to identify soil quality indicators, develop a rating system, and design a local soil quality/health card is practiced by participants. Activities to enhance facilitation skills for</p>

Quality Cards)

farmer meetings and locally led conservation are included. Back home strategies to market and develop local soil health cards are developed. (Fall 98).

Comments, suggestions, and questions are welcome.

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http:

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