Soil Taxonomy Letter No. 1

The soil classification system used in the National Cooperative Soil Survey was published in 1975 in Soil Taxonomy (Soil Survey Staff, 1975). Since that time, use of the system in the United States and other countries has resulted in the identification of some deficiencies. Because the system is dynamic and designed to classify all soils, it must be revised periodically. To advise soil scientists of revisions that have been approved, we plan to publish them in the Soil Science Society of America Journal until a new edition of Soil Taxonomy is published.

Proposals to amend the classification system may be made by individuals or institutions in the United States or in other countries. A review procedure has been established. Technical committees evaluate proposals and recommend action, and the Soil Taxonomy Policy Committee makes final disposition. Proposals from within the United States are referred to one of four regional technical committees that represent the National Cooperative Soil Survey. Proposals from outside the country are referred to a national technical committee in the country of origin or to a special international technical committee. After evaluating the need for the amendment and the documentation provided to support it, the technical committee recommends to the policy committee whether the proposal should be accepted or rejected.

Following is a list of all revisions approved since Soil Taxonomy was published. Most of them provide new taxonomic classes for Soil Taxonomy or result in a change in the placement of currently recognized soils from one class to another.

1) Four additional strongly contrasting family particle-size classes have been added:
   Fine-loamy over cindery
   Cindery over medium
   Cindery over medium-skeletal
   Ashy over medium

2) Temperature restrictions on Vertisols have been removed. Vertisols may now be recognized with any soil temperature regime.

3) Arenic Albic Haplaquolls have been redefined to include soils with dark-colored surface horizons. The redefinition precluded any need to recognize a proposed new subgroup, Arenic Mollic Hapludalfs.

4) A new great group, Fragixeralfs, has been approved, with Typic, Mollic, and Ochreptic subgroups.

5) There are three revisions in the key to orders.
   A) Certain soils are now included in Mollisols and Inceptisols that were previously classified as Vertisols and Entisols, respectively. Specifically, soils in tropical areas were previously excluded from classification as Mollisols because it was believed that Mollisols did not occur in those areas. Now, any soil having the properties of a Mollisol and not first keyed in another order is classified in the Mollisols order.
   B) Soils with an ustic or xeric moisture regime and either a gypsic or petrogypsic horizon are now classified as Inceptisols. Previously, they were excluded from any order except Entisols.
   C) All mineral soils with histic epipedons are now classified as Inceptisols. Previously, those with histic epipedons composed of organic materials were classified as Entisols, and those with histic epipedons composed of mineral soil materials were classified as Inceptisols. This revision brings these two similar groups of soils together in Inceptisols.

6) Arenic Ochraqualfs have been redefined to include soils with dark-colored surface horizons. The redefinition precludes the need for a proposed new subgroup, Arenic Ochraqualfs.

7) A new subgroup, Mollic Natraqualfs, has been added to recognize Natraqualfs that intergrade to Mollisols.

8) A new subgroup, Psammaquentic Hapludalfs, has been added to recognize Hapludalfs that have sandy argillie horizons and mottles of chroma 2 or less in the upper 75 cm of the soil.

9) A new subgroup, Arenic Plinthic Paleudalfs, has been added to recognize Paleudalfs that have both a sandy epipedon > 50 cm thick and > 5% plinthite within 1.5 m of the soil surface.

10) A new subgroup, Arenic Haplargids, has been added to recognize Haplargids that have a sandy epipedon > 50 cm thick.

11) Two new subgroups, Typic Sulfinertis and Terric Sulfinertis, have been added to provide subgroups of Sulfinertis for soil series already recognized in the United States.

12) A new subgroup, Mollic Halaquepts, has been added to recognize Halaquepts that are intergrades to Mollisols.

13) A new subgroup, Aquic Cryaquepts, has been added to recognize Cryaquepts that are intergrades to Cryaquepts.

14) A new subgroup, Andaque Haplumbrepts, has been added to recognize Haplumbrepts that are intergrades to Andepts and Aquepts.

In addition to the revisions listed here, minor changes in the text of Soil Taxonomy have been approved to correct typographical errors and clarify vague or ambiguous statements. The precise wording of updating procedures of amendments is contained in the Soil Conservation Service (SCS) National Soil Taxonomy Handbook (NSTH). Sections of this handbook are issued as new amendments are approved. Readers may request copies of the NSTH by writing to USDA-SCS at the address shown below.

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RICHARD L. GUTHRIE
National Leader for Soil Taxonomy
USDA, Soil Conservation Service
P.O. Box 2890
Washington, D.C. 20013

RICHARD W. FENWICK
Soil Classification Specialist
P.O. Box 2890
Washington, D.C. 20013

References