

2275
1278

BIBLIOTHEEK
INSTITUUT VOOR
BODEMVRUCHTBAARHEID
GRONINGEN

BEPAK
No. 16986

631.445.2631.411

SOME GENERAL REMARKS ON THE WORK OF COMMISSION V

D. J. HISSINK

(Institute of Soil Science, Groningen, Holland)

Just twenty-five years ago, at the Second International Soil Conference (Stockholm, 1910), a Commission was formed, under the leadership of Frosterus, Finland, for the study of the nomenclature of the soil types in the north-western European moraine region. During the years 1910-1914, Frosterus' Commission published five interesting reports ("Zur Frage nach der Einteilung der Böden in Nordwest-Europas Moränengebieten," I-V., von Benj. Frosterus und K. Glinka), which, however, contained no proposals as to the nomenclature desired. The work of Frosterus' Commission (Nomenclature and Classification) and of a Commission Murgoci (Soil Mapping), which was founded later, was taken over in the year 1924 by a Commission under the presidentship of Prof. C. F. Marbut, Washington, appointed at Rome. The name of this fifth international Commission was subsequently altered; it is now: Commission for Soil Genesis, Morphology, and Cartography. In "Soil Research," Volume IV (1934), No. 2, pp. 139-148, Marbut gives his ideas on the work of this Commission. Marbut considers that the members of Commission V are devoted to research rather than to the manipulation of the products of research; the Commission interprets its mission as one of encouragement to research rather than of the formation of conclusions. Marbut further points out that, although no definite conclusions have hitherto been presented by the Commission, it should not, on the other hand, be lost sight of that to the results of the work performed by the Com-

mission must be accredited the gradual change in point of view regarding the soil as a body worthy of study in and for itself.

Agreement with Marbut's point of view, as set forth above, and with his opinion that in a science as young as soil science, in which so many active and passive factors are involved, the formulation of conclusions can be accepted merely as temporary and tentative, and that definite formal conclusions inevitably constitute limitations on freedom of action, should not blind Commission V to the fact that in the meantime—that is, while the Commission is busy studying—practice, and particularly agricultural practice, is putting questions regarding classification and nomenclature. The pronouncement made at the Second International Conference at Stockholm in 1910, that there is a great need of a system of nomenclature and classification of the soils from an agricultural point of view, still holds good. This system should of course be consistent, and should as far as possible be an extension and amplification of the terminology already existing in practical agriculture.

A clearer idea of what I mean will be gained if it be recalled that Atterberg made an effort nearly twenty-five years ago in the direction of a grouping of mineral soils; he naturally had in mind the types with which he was familiar in his own country (Sweden). He wished to arrive at an international definition of the conceptions of clay soils, loamy soils, and sandy soils, with their transition forms of heavy clay soils, sandy clay soils, etc., and their sub-divisions, such as fine-grained and coarse-grained sandy soils, etc.

For a classification of these mineral soils it is first of all necessary to define the terms clay, loam, and sand. It is well known that views on this point are still divergent; it is perhaps superfluous to refer here to the general discussion held by the Faraday Society (1) on May 31st, 1921, on "Physico-Chemical Problems relating to the Soil" (2). It is further necessary to determine what percentage of clay or of loam is permissible in sandy soils; *i.e.*, when we may speak of clayey sandy soils and loamy sandy soils, and when of sandy clay soils and sandy loamy soils. And there are still other questions awaiting an answer.

In Holland we have now progressed far enough with the study of the sea clay and sandy soils to have arrived at a fairly good classification and nomenclature of this type. The basis of this is the granular composition (content of clay and sand). In the grouping of the sandy soils we have further been able to make very good use of the specific surface, calculated according to Zunker's formula (3).

The object of these few words is only to draw the attention of the Congress to this part of the work of Commission V, in the hope that it will become a subject of discussion and may lead to the formulation of a few international conclusions. I hope to have an opportunity at the Congress of giving fuller particulars as to the questions that arise in connection herewith and as to the results of our work in Holland.

REFERENCES

- ¹ *Trans. Faraday Soc.*, Vol. XVII, Part II. (1922).
- ² See also HISSINK, D. J., *Versl. Rijkslandbproefsta.*, No. XXX. (1925), pp. 198-202.
- ³ See also HOOGHOUDT, S. B., *Verslag. Landbouwk. Onderzoek*, No. 40, B. (1934), pp. 215-345.