

Mica Research Project Report

NCSS Review Committee Recommendations

Mica Research Team Proposals

- **PEDON DESCRIPTIONS**
- **INTERPRETATIONS & COMPONENT INFORMATION**
- **SOIL TAXONOMY PROPOSALS**
- **RESEARCH ISSUE**

PEDON DESCRIPTIONS

(MRT #1, 2, 4, 5, 6, 7, 8, 11)

- Amount (%)
- Method used to determine amount
- Size classes <2mm (2 classes)
- Inherited materials - kind
 - biotite, muscovite
- “Micaceous” textural modifier
- Manner of failure – “greasiness”
- Add “mica” as a horizon fragment choice (Pedon and component)

INTERPRETATIONS & COMPONENT INFORMATION

(MRT #9, 10, 12)

Formal request to National Leader for Soil Survey Interpretations

- Soil slippage potential
 - criteria for mica amount and size, percent slope, and configuration.
- Implement a two-tiered interpretive class system for high-mica and low-mica soils.
- Create a new workgroup to address NASIS data population and soil interpretation issues.

INTERPRETATIONS & COMPONENT INFORMATION

COMPONENT INFORMATION

- Ist Choice

- Amount
- Size
- Inherited materials - kind
(biotite, muscovite)

- 2nd Choice

- “micaceous” textural
modifier
- Manner of failure

SOIL TAXONOMY PROPOSALS

(MRT #3, 13, 14, 15)

- Replace percent weight with grain count for mineralogy class
- Redefine micaceous (eliminate paramicaceous) to “more than 45 percent (by grain count) mica and stable mica pseudomorphs in the 0.02 to 0.25 mm fraction.”
- Circulate proposed revision of the mineralogy key for review and testing.
- Establish new series for those soils that have low mica content in the upper part and high mica content in the lower part.

Committee recommendation - distribute in the next round of Taxonomy of proposals soils so that data from a broader region or regions can be evaluated.

RESEARCH ISSUE

- Initiate an investigation to modify soil erosion factors (K_w and K_f) based on mica content, size, and shape.

Committee recommendation - Agreed-to in principal.

- The ARS has jurisdiction over research of the soil erodibility factor k .
- The request should be elevated to the ARS through the Soil Survey Division.

SUMMARY OF COMMITTEE RESPONSE TO THE MICA RESEARCH RECOMMENDATIONS

PEDON DESCRIPTIONS	1, 2, 4, 5, 6, 7, 8, 11
INTERPRETATIONS	9, 10, 12
SOIL TAXONOMY PROPOSALS	3, 13, 14, 15
RESEARCH ISSUE	

Field Book for Describing and Sampling Soils

