

M.J. Williams, R.A. Robbins, C. Ellis, and K.E. Spaeth. 2009. Use of Multivariate Analysis to Develop Forage Suitability Groups. 2009 American Forage and Grassland Council Annual Conference – Interpretive Summaries. 21-23 June 2009. Grand Rapids, MI.

Forage suitability groups (FSG) are what the USDA, Natural Resource Conservation Service rangeland and pasture specialists as well as other conservation planners and producers use to implement prescribed grazing plans. Information contained in FSG include soil map unit components, adapted forage species, associated conservation and management practices, and seasonal distribution and yearly amount of forage production. Grouping soils based on similar production capabilities is the starting point for developing a FSG. Although such groupings should be made using quantitative information from state and federal forage research programs, this type of detailed information is often lacking. In reality, the practical experience of NRCS soils and grazingland personnel within the state has often the deciding factor in establishing FSG's. Multivariate statistical procedures such as ordination allow the visualization of relationships and gradients among large numbers of soils in a multidimensional (2-D and 3-D) space. Soils with similar characteristics cluster closer together, and these groupings can be visualized in graphical plots. In Florida, we are in the process of revising existing FSG, originally produced by subjective means, using quantitative measurements.