(3) Providing assistance for installing practices, and

(4) Certifying that the work done is in accordance with NRCS standards and specifications.

[42 FR 38169, July 27, 1977, as amended at 47 FR 56473, Dec. 17, 1982]

§ 610.5 Interdisciplinary assistance.

Technical assistance is based on the principle that soil, water, plant, and related resources are interdependent and must be managed accordingly. Soil conservationists integrate the various technical fields in providing for the conservation of land and water resources. Staff scientists and specialists develop conservation standards, prepare necessary specifications, provide training, and review work performance, NRCS uses consultants for conservation problems that require special expertise.

Subpart B—Soil Erosion Prediction Equations

SOURCE: 61 FR 27999, June 4, 1996, unless otherwise noted.

§ 610.11 Purpose and scope.

This subpart sets forth the equations and rules for utilizing the equations that are used by the Natural Resources Conservation Service (NRCS) to predict soil erosion due to water and wind. Section 301 of the Federal Agriculture Improvement and Reform Act of 1996 (FAIRA) and the Food Security Act, as amended, 16 U.S.C. 3801–3813 specified that the Secretary would publish the universal soil loss equation (USLE) and wind erosion equation (WEQ) used by the Department within 60 days of the enactment of FAIRA. This subpart sets forth the equations, definition of factors, and provides the rules under which NRCS will utilize the USLE, the revised universal soil loss equation (RUSLE), and the WEQ.

§ 610.12 Equations for predicting soil loss due to water erosion.

(a) The equation for predicting soil loss due to erosion for both the USLE and the RUSLE is $A = R \times K \times LS \times C \times P$. (For further information about USLE see the U.S. Department of Agriculture Handbook 537, "Predicting Rainfall Erosion Losses—A Guide to Conservation Planning," dated 1978. Copies of this document are available from the Natural Resources Conservation Service, P.O. Box 2890, Washington, DC 20013. For further information about RUSLE see the U.S. Department of Agriculture Handbook 703, "Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE)." Copies may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.)

(b) The factors in the USLE equation are:

(1) *A* is the estimation of average annual soil loss in tons per acre caused by sheet and rill erosion.

(2) *R* is the rainfall erosivity factor. Accounts for the energy and intensity of rainstorms.

(3) *K* is the soil erodibility factor. Measures the susceptibility of a soil to erode under a standard condition.

(4) *LS* is the slope length and steepness factor. Accounts for the effect of length and steepness of slope on erosion.

(5) *C* is the cover and management factor. Estimates the soil loss ratio for each of 4 or 5 crop stage periods throughout the year, accounting for the combined effect of all the interrelated cover and management variables.

(6) *P* is the support practice factor. Accounts for the effect of conservation support practices, such as contouring, contour stripcropping, and terraces on soil erosion.

(c) The factors in the RUSLE equation are defined as follows:

(1) *A* is the estimation of average annual soil loss in tons per acre caused by sheet and rill erosion.

(2) *R* is the rainfall erosivity factor. Accounts for the energy and intensity of rainstorms.

(3) *K* is the soil erodibility factor. Measures the susceptibility of a soil to erode under a standard condition and adjusts it bi-monthly for the effects of freezing and thawing, and soil moisture.

(4) *LS* is the slope length and steepness factor. Accounts for the effect of