4-1967

Predicting Soil Losses in Tennessee under Different Management Systems

University of Tennessee Agricultural Experiment Station

C. H. Jent Jr.

F. F. Bell

M. E. Springer

April 1967 Bulletin 418

PREDICTING SOIL LOSSES IN TENNESSEE UNDER DIFFERENT MANAGEMENT SYSTEMS

GUIDE FOR SELECTING SYSTEMS AND PRACTICES FOR SOIL AND WATER CONSERVATION

C. H. Jent, Jr. F. F. Bell M. E. Springer

The University of Tennessee
Agricultural Experiment Station
John A. Ewing, Director
Knoxville

in cooperation with the
U. S. Department of Agriculture
Soil Conservation Service

FOREWORD

Soil-Loss Predicting Equation—Tennessee

The soil-loss equation serves as a guide to predict soil losses under widely different cropping systems, conservation practices, and climatic conditions for the many soils in Tennessee. Using the data, one can select combinations of crops and conservation practices to keep predicted soil losses within acceptable limits for any soil. This equation is a refinement of an earlier equation developed and used in the North Central and Northeastern states.

Many people have contributed in the development of the soil-loss predicting equation. Approximately 10,000 plot-years of run-off, soil loss, and associated precipitation data from 47 scattered Federal-State research projects in 21 states have been assembled by the Soil and Water Conservation Research Division, Agricultural Research Service, U. S. Department of Agriculture. These data are the foundation of the equation.

The authors are indebted to Walter H. Wischmeier and D. D. Smith of the Agriculture Research Service for their help and guidance. The joint U.T.-SCS Committee adapted much of the research data to Tennessee conditions and provided many of the explanations contained in this bulletin. Committee members were:

F. F. Bell and M. E. Springer, University of Tennessee.

C. B. Breinig, Cal L. Roark, and D. K. Springer, Soil Conservation Service.

Availability of additional research data and use of the equation will likely bring about modifications of factor values in the future.

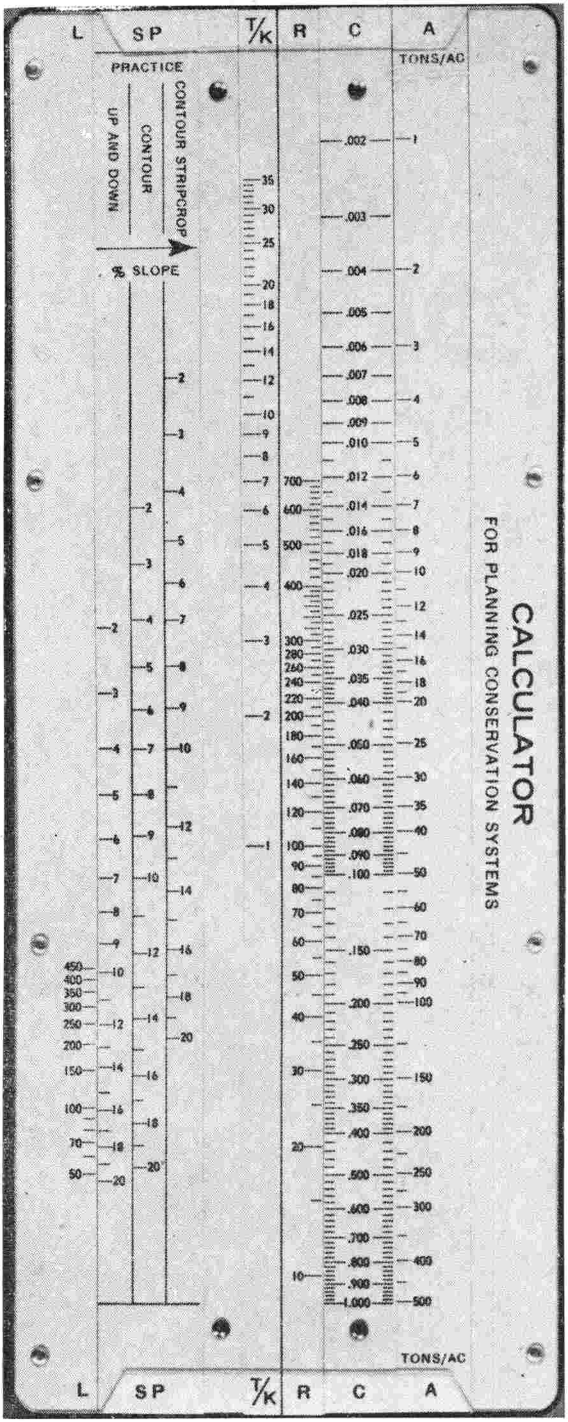

Figure 1. Actual photograph of a plastic calculator which operates like a slide rule to speed up calculations.

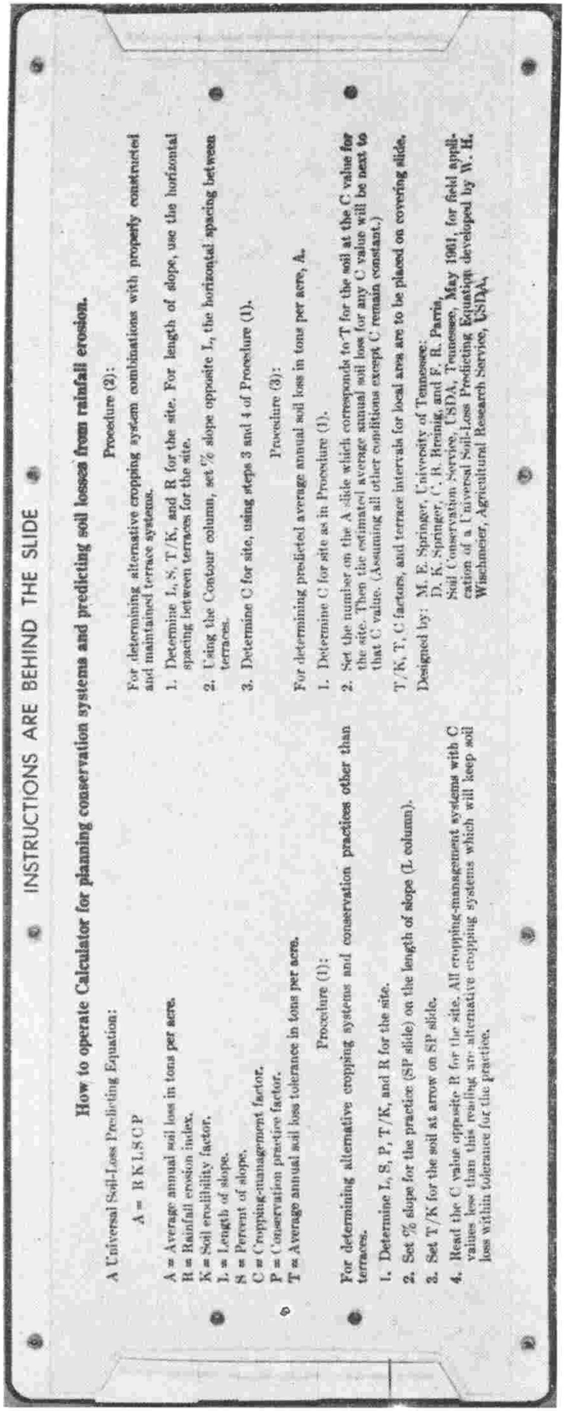

Figure 2. On the back of the slide rule are brief instructions for using the calculator to select alternative systems of cropping and practices to predict soil losses. Frequently-used factors may be listed on a large section which slides over the instructions.

Hundreds of the calculators are in use in Tennessee and more than 20 other states. They help in selecting acceptable crop management systems and erosion control practices.

CONTENTS

LIST OF FIGURES

PREDICTING SOIL LOSSES IN TENNESSEE UNDER DIFFERENT MANAGEMENT SYSTEMS

Guide for Selecting Systems and Practices for Soil and Water Conservation

C. H. Jent, Jr., F. F. Bell, and
M. E. Springer [1]

INTRODUCTION

Formerly soil conservationists and other professional agricultural workers were able to indicate expected soil losses from sloping cropland only in relative terms. Today quantitative soil-loss estimates based on experimental data can be made for most land conditions in Tennessee. Furthermore, predictions as to probable soil losses are possible for a given field under alternative systems of land use and cropping-management, with or without special conservation practices. These advances were made possible by developing an empirical equation that includes several interrelated factors that contribute to soil loss by rainfall-induced erosion.

Factors influencing soil loss have been studied for many years. Analysis of accumulated data and refinement of early methods of predicting soil losses resulted in the introduction in 1961 of a "universal" equation for estimating rainfall-erosion losses (*2, 3, 9, 11*)[2]. With appropriate adjustments for local conditions, it applies to all areas where soil loss is significant because of rainfall.

Tennessee has the distinction of being the first state where the new universal soil-loss predicting equation was adapted to local conditions and put to use by operational soil conservationists (*11*).

More than 10,000 plot-years of runoff, soil-loss, and associated precipitation and related data from 37 scattered Federal-State

---

[1] Conservation Agronomist, U. S. Department of Agriculture, Soil Conservation Service, Tennessee; Professors of Agronomy, University of Tennessee, College of Agriculture, Knoxville, Tennessee, respectively.

[2] Italic numbers in parentheses refer to references cited, page 75.

research projects in 21 states were assembled and analyzed by the Soil and Water Conservation Research Division, Agricultural Research Service (*3, 11*). These data are the foundation of the present equation.

Quantitative estimates using the soil-loss predicting procedure provide a sound guide to farmers in making shifts in land use and in selecting combinations of crops and conservation practices that will keep estimated soil losses within acceptable limits for any soil. Such estimates can give the farmer and the professional worker who assists him more confidence in their recommendation (*2*).

THE EQUATION

The soil-loss predicting equation considers the effect of all the major factors known to influence rainfall erosion. The equation is A=RKLSCP. Predicted average annual soil loss in tons per acre, "A," is the product of the factors "R" (rainfall), "K" (soil erodibility), "LS" (length and steepness of slope), "C" (cropping-management), and "P" (supporting conservation practices) (*1, 3, 4, 6, 9, 11*).

How each factor influences erosion and how numerical values were determined for them is explained in sections that follow. In addition, the soil loss tolerance (T) value is discussed.

The last section of this bulletin, entitled "Using the Equation," gives examples of how to apply the equation to field conditions. Tables and figures giving values applicable to Tennessee conditions are included in the Appendix.

Average Annual Soil Loss (A)

The equation is used to calculate A which is the average annual soil loss in tons per acre that will occur over a period of years. Such predictions are valid only when applied over a period of time and will not necessarily be true for any 1 year because of year to year fluctuations. Thus, predicted soil losses should be considered only as a guide when used in planning conservation systems for sloping cropland.

Rainfall Factor (R)

The R factor in the soil-loss equation is the erosion potential of rainfall in a particular locality, that is, the ability of rain to erode soil from farm fields. Soil-loss measurements show that the erosion potential is not necessarily determined by the total amount of rainfall or any specific intensity-frequency (*5, 10*). The best indicator of rainfall erosion potential now known is the rainfall-erosion index (*7, 9*).

The rainfall-erosion index is a function of the characteristics of each individual rainstorm. Analysis of extensive soil-loss data and associated rainfall records revealed that when factors other than rainfall are held constant, storm soil losses from cultivated fallow fields are directly proportional to the product value of two rainstorm characteristics—total kinetic energy of the storm times its maximum 30-minute intensity. Among all the sets of fallow-plot data available for analysis, the energy times maximum 30-minute intensity values (E I values) explained a greater percentage of total soil loss variation than did the combination of any 3 of 41 other rainstorm characteristics and interaction terms investigated (*5, 7, 9, 10*).

The rainfall-erosion index for a given time period is the sum of the E I values computed for the individual storms occurring during the period. The average annual value of the erosion index in any specific locality is the rainfall factor (R) for the soil-loss predicting equation in that locality (*7, 9*).

Figure 2 is the iso-erodent map for Tennessee. Iso-erodents are lines joining areas with equal erosion index values (which implies equally erosive average annual rainfall). Values of the rainfall factor in those counties not crossed by one of the iso-erodents may be approximated by linear interpolation. If all other conditions were equal, identical plots in various sections of the state would be expected to have average soil losses in direct proportion to the index values shown on the map (*4, 9, 10*). Differences in index values do not necessarily conform with differences in total rainfall amount.

The iso-erodent map was developed by plotting the computed product, total storm energy times maximum 30-minute intensity, for those rains above an established minimum (½-inch) from records of all the first-order weather stations in or near Tennessee. U. S. Weather Bureau records for a continuous 22-year period were used. Determinations between points represented by major weather stations were on the basis of rainfall amount and intensity probability data published by the Weather Bureau.

Rainfall factor values for all counties in the state are listed in Table 4 of the Appendix.

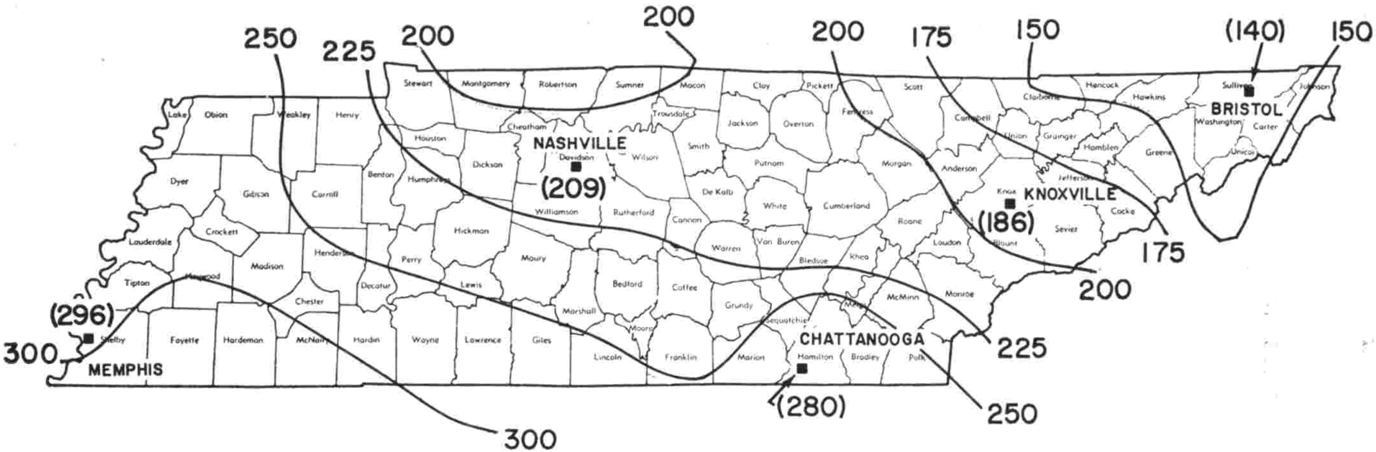

Figure 2. Values of the rainfall factor in Tennessee.

As pointed out earlier, the available data show that for tilled continuous fallow, annual rainfall-erosion index values are closely correlated with annual soil loss amounts. However, rate of soil loss per index unit varies with soil and slope characteristics. When cropping is introduced, the correlation still holds, but the rate of loss is influenced by the cropping and management (*7*). This is more fully discussed in the section dealing with the cropping-management (C) factor.

Soil-Erodibility Factor (K)

Different types of soil erode at different rates even when other factors affecting erosion are constant. Some of the important soil physical properties that influence erodibility are size and stability of structure, soil texture, percentage of coarse fragments—especially on soil surface—organic matter, infiltration, permeability, type of clay mineral, and depth of soil material (*1, 3, 4, 6*).

The soil-erodibility factor (K) in the erosion equation reflects the rates at which different kinds of soils erode. "K" values are expressed as soil loss in tons per acre per unit of rainfall-erosion index (R) from clean-tilled continuous fallow on a 9% slope, 72.6 feet long (*4, 6, 11*). This means that a cultivated, continuous-fallow, Memphis silt loam which has a "K" value of 0.37 located on the "standard" slope in Shelby County where the rainfall-erosion index (R) is 300 would erode at the rate of 111 tons per acre per year ($0.37 \times 300 = 111$).

The "basic" slope of 9%, 72.6 feet long was selected, since these were the specifications of many plots used in early runoff and erosion experiments. The next section on length and steepness of slope (S and L factors) will explain how other slope conditions are related to the "basic" slope.

Continuous fallow is defined as any land that has been tilled and kept clear of vegetation for a period of at least 2 years or until prior crop residues have decomposed.

The influence of soil type on rate of soil loss has been determined for all soils for which fallow-plot research data were available. All soils of Tennessee have been assigned soil erodibility values. Available soil erodibility data were used as a base with properties of individual Tennessee soils related to those soils for which data were available as well as to each other.

Table 5 in the Appendix lists soils occurring in Tennessee with assigned soil erodibility (K) factors. Also, this table lists the assigned soil-loss tolerance (T) amounts along with computed T/K values for Tennessee soils.

Length and Steepness of Slope Factors (LS)

Soil losses are greater on the longer and steeper slopes. But the rate of erosion does not increase uniformly with increasing slope length or gradient. Soil losses per unit area have been found to increase exponentially with increases in slope length and steepness. The exponent in common use for increasing length is 0.50. The exponent presently used for increasing steepness is 1.40 (*6, 12*).

Solution of the soil-loss equation is made easier by combining the equations of the factors for length and steepness of slope and expressing them as a ratio of soil loss for any slope length and steepness to the "standard" 9%, 72.6-foot long slope. With the value for the "standard" set at 1 or any other value, charts or tables may be prepared for easy selection of SL ratios (*4, 6*). From Figure 6 in the Appendix, read directly for the desired slope conditions.

When using the soil-loss predicting equation to estimate soil loss, the length of slope is the distance from the point where overland flow begins to either of the following, whichever is limiting for the major part of the area under consideration: 1) the point where run-off water becomes concentrated in a watercourse that may be part of a drainage network or a constructed channel such as a terrace or diversion, or 2) the point where the slope decreases to the extent that deposition begins (*4*).

Much of the research data suggests that significant interactions exist between slope length and soil properties that affect run-off, detachment, and transportability. It is known that lower values of the slope length exponent are associated with soils on which run-off amounts decrease with increasing slope length. Practices such as contouring interact with the factor for steepness of slope. Research aimed at further defining these interaction effects is presently underway (*11*).

Cropping-Management Factor (C)

The cropping-management factor (C) is the expected ratio of soil loss from land cropped under specified conditions to corresponding soil loss from continuous fallow under identical rainfall, soil, and slope conditions.

The cropping-management factor is the most complex of all the factors in the equation. When a field is cropped or management practices are used, the amount of erosion may be greatly reduced. How much depends on many factors and their interaction effects on each other. For example, the effects of a meadow crop turned under before cotton or corn depends upon the kind and quality of the meadow. The amount of cover crop, root growth, quantity of crop residue in plow layer, water used by growing crops, etc., all influence the amount of soil that will erode from a field. These conditions vary greatly within the growing season of a crop or within the rotation cycle. As indicated in the discussion of rainfall, the distribution of erosive rainstorms within the year differ from one location to another (*8*).

The erosion control effectiveness of each crop and practice was approximated on the basis of five crop-stage periods. These periods were established so that the effectiveness of each stage of crop development could be related to the amount of the annual rainfall-erosion index occurring during that period at a specific location. Crop-stage periods were selected for relative uniformity of cover and residual effects within each period. They are as follows:

Period F: Rough fallow. Turn plowing to seeding date.

Period 1: Seedbed period. Seeding to 1 month after.

Period 2: Establishment period. From 1 to 2 months after planting corn or spring grain. For late-seeded winter grain, 1 month after seeding to April 1.

Period 3: Growing crop. From period 2 to crop harvest.

Period 4: Stubble or residue period. Harvest to turnplow or new seedbed. (When meadow is established in small grain, grain-period 4 ends 2 months after grain harvest. Thereafter it is classified as established meadow.)

Corn yields were found to be a good indicator of the combined effects of quality of meadow turned under, quantity of prior crop residue, density of canopy, rate of water use by plants, quantity of root growth, and soil fertility. Differences due to crop sequences, tillage, and residue management were evaluated separately. Differences in antecedent soil moisture and degree of surface smoothing and sealing by prior rainfall were considered to be randomly distributed in time during a crop-stage period.

Ratios of soil losses from cropped plots to corresponding losses from continuous fallow were computed from the assembled research data. These ratios were computed by each of the five crop-stage periods and for each crop under various combinations of crop sequence and yield level. The results were tabulated and published in ready-reference form as shown in Table 2 (*8*).

Table 1 contains the assumed mean dates for crop-stage periods used in calculating cropping-management values for Tennessee.

Table 1. Assumed mean dates for determining crop stage periods in calculations of "C" values—Tennessee

CORN: Grain—Turn-plow 4-10, plant 5-10, harvest 10-20
Silage—Turn-plow 5-1, plant 5-20, harvest 9-1
Late seeded winter cover (small grain-legume or grass-legume) after corn for grain residue left corn harvested 10-15, disk and plant 10-15
Early seeded winter cover (small grain-legume or grass-legume) after silage—disk and plant 9-10

COTTON: Turn-plow, plant 5-1, harvest 11-1
Winter cover (small grain-legume or grass-legume) after cotton-disk and plant 11-1
Winter cover early seeded in cotton middles, plant 9-15

TOBACCO: Turn-plow 4-10, plant 5-15, harvest 9-1
Winter cover (small grain-legume or grass-legume) after tobacco-disk and plant 9-10

SOYBEANS: Turn-plow 4-20, plant 5-20, harvest 10-10
Winter cover (small grain-legume or grass-legume) after soybeans for beans-disk and plant 10-20

SMALL GRAIN: Early seeded-turn-plow or Disk 9-1, Plant 9-15 except after corn for silage plant 9-10, harvest 6-10
Late seeded-turn-plow or disk 10-15, plant 10-15, except after soybeans disk or turn-plow and plant 10-20, harvest 6-10
Late seeded, continuous small grain-turn-plow or disk 10-1, plant 10-15, harvest 6-10

SUDANGRASS or MILLET: Turn-plow 5-20, plant 6-1, harvest 9-1
Early seeded winter cover, disk or turn-plow and plant 9-10

MEADOW: Annual lespedeza-plant 3-15, harvest 9-1
Sericea lespedeza-disk or turn-plow 3-1, plant 3-15
Grass-legume:
Spring—Disk or turn-plow 3-1, plant 3-15
Fall—After small grain, harvest, disk or turn-plow 8-1, plant 9-1
Fall—After corn for silage, disk or turn-plow 9-1, plant 9-10
Fall—After corn for grain rd.l., late seeded, disk or turn-plow and plant 10-15
Fall—After tobacco, disk or turn-plow and plant 9-10

Table 2. Ready-reference table. Ratio of soil los from crops to corresponding loss from continuous fallow†

CORN

Line No.	Cover, sequence & management[2]	Crop yields: Meadow	Crop yields: Corn	Crop-stage period[2]: F	1	2	3	4-RdL	4-RdR
		tons	bu.	%	%	%	%	%	%
	Continuous corn, RdR								
1	no treatment		25	85	92	80	50	—	85
2	no treatment		40	85	92	72	35	—	80
3	8 T./A. manure under		40	64	72	52	28	—	62
4	fertilized, N-P-K		40	80	85	70	35	—	75
5	fertilized, N-P-K		60	80	85	60	30	—	70
	Continuous corn, RdL								
6	w/o WC seeding		25	70	76	64	38	65	—
7	w/o WC seeding		45	55	70	58	32	50	—
8	w/o WC seeding		75	36	63	50	26	30	—
9	with g & l WC[1]		25	42	56	52	38	33	—
10	with g & l WC		45	33	51	47	32	25	—
11	with g & l WC		75	22	46	41	26	15	—
	1st-yr. corn after M								
12	after g & l hay	<1	25	23	40	43	30	45	65
13	after g & l hay	<1	40	23	40	38	25	35	60
14	after g & l hay	1 to 2	40	15	32	30	19	30	50
15	after g & l hay	1 to 2	60	15	30	27	15	22	45
16	after g & l hay	2 to 3	70	10	28	19	12	18	40
17	after g & l hay	>3	75	8	25	17	10	15	35
18	after red cl hay	2	40	21	35	32	25	35	60
19	after Scl hay	2	40	23	45	38	28	35	60
20	after lespedeza hay		25	60	76	58	35	65	80
21	after lespedeza seed, all RdL		30	25	40	35	25	45	—
	In meadow-less rotations								
22	after SG in SG & Scl-C-C		30	30	45	42	30	40	—
23	after SG in SG & Scl-C or cot		60	25	38	35	24	30	—
24	after SG w/o catch, after RC		40	55	70	60	32	50	80
	2nd-yr, corn after g & l M								
25	prior-corn RdR	<1	25	70	75	70	45		80
26	prior-corn RdR	<1	40	70	75	65	32	—	75
27	prior-corn RdR	1 to 2	40	65	72	57	29	—	70
28	prior-corn RdR	1 to 2	60	62	70	54	26	—	70
29	prior-corn RdR	2 to 3	60	60	65	51	24	—	65
30	prior-corn RdL	<1	25	55	66	60	35	65	—
31	prior-corn RdL	<1	40	46	62	54	30	50	—
32	prior-corn RdL	1 to 2	40	42	57	49	28	42	—
33	prior-corn RdL	1 to 2	60	35	54	45	24	28	—
34	prior-corn RdL	2 to 3	70	32	51	41	22	26	—
35	prior-corn RdL	>3	75	25	48	37	20	24	—
36	prior-corn RdL+WC[1]	<1	25	33	48	49	35	33	—
37	prior-corn RdL WC	<1	40	28	45	44	30	25	—
38	prior-corn RdL WC	1 to 2	40	25	42	40	28	21	—
39	prior-corn RdL WC	1 to 2	60	21	39	36	24	15	—
40	prior-corn RdL WC	2 to 3	70	20	37	33	22	15	—
41	prior-corn RdL WC	>3	75	18	35	30	20	14	—
42	Corn after 2 or more M			[2]	[2]	[2]	[2]		

See footnotes at end of table.

Table 2. Ready-reference table. Ratio of soil loss from crops to corresponding loss from continuous fallow† (Continued)

COTTON

Line No.	Cover, sequence & management	Meadow yield[1]	Fertility level	Crop-stage period[2] F	1	2	3	4-RdL
		tons		%	%	%	%	%
	Continuous cot							
43	w/o WC seeding		MF	45	80	80	52	48
44	w/o WC seeding		HF	42	70	70	48	42
45	with g & l WC[1]		MF	35	58	65	52	25
46	with g & l WC[2]		HF	32	51	57	48	22
	1st-yr, cot							
47	after SG w/o M, after RC		MF	45	70	70	48	42
48	in cot-W-Scl hay		MF	25	45	48	35	—
49	in cot-O-lespedeza seed, RdL		MF	25	40	45	37	—
50	in cot-O-lespedeza seed, RdL		HF	23	34	40	30	—
51	after lespedeza hay		MF	62	76	73	50	—
52	in cot (V)-Corn(crot)		HF	28	40	45	35	22
53	after g & l meadow	<1	MF	23	40	54	45	42
54	after g & l meadow	1 to 2	MF	15	34	45	35	30
55	after g & l meadow	1 to 2	HF	15	34	40	30	30
56	after g & l meadow	3	HF	10	30	35	25	25
	2nd-yr, cot after g & l meadow							
57	RdL, no WC	<1	MF	40	70	70	50	48
58	RdL, no WC	1 to 2	MF	35	65	68	46	42
59	RdL, no WC	1 to 2	HF	35	58	62	44	40
60	RdL, no WC	3	HF	30	55	57	40	38
61	RdL g & l WC[1]	<1	MF	27	51	57	50	25
62	RdL g & l WC	1 to 2	MF	23	47	55	46	22
63	RdL g & l WC	1 to 2	HF	23	42	50	44	20
64	RdL g & l WC	3	HF	20	40	46	40	20

SOYBEANS[2]

ESTABLISHED MEADOW

		All-year average %
	Grass & legume mix (hay)	
65	yield less than 1 ton	1.0
66	yield, 1 to 2 tons	0.6
67	yield, 2½ or more tons	0.4
68	Red clover, 2 tons	1.5
69	Sweet clover, 2 tons	2.5
70	Lespedeza hay or grazed	2.0
71	Lespedeza for seed (RdL)	1.0
72	Continuous Sericea after 2nd year	1.0

NEW MEADOW

73 Seeded in grain. See lines 75-92.

74 Grass & legume seeded alone. Relate subjectively to small grain with meadow seeding.

See footnotes at end of table.

Table 2. Ready-reference table. Ratio of soil loss from crops to corresponding loss from continuous fallow† (Continued)

GRAIN WITH MEADOW SEEDING

Line No.	Cover, sequence & management	Crop yields: Meadow	Crop yields: Corn	Crop-stage period[2]: 1	2	3g	3p	4
		tons	bu.	%	%	%	%	%
	In RC residues, straw left, adeq fert							
75	after 1 yr. C after M	<1	25	60	36	5	15	3
76	after 1 yr. C after M	<1	40	48	29	5	15	3
77	after 1 yr. C after M	1 to 2	40	41	25	4	15	2
78	after 1 yr. C after M	1 to 2	60	30	18	3	15	2
79	after 1 yr. C after M	3	75	20	12	2	10	1
80	after 2 yrs. C after M	<1	25	75	45	6	15	3
81	after 2 yrs. C after M	<1	40	65	38	5	15	3
82	after 2 yrs. C after M	1 to 2	40	58	35	5	15	3
83	after 2 yrs. C after M	1 to 2	60	40	24	5	15	3
84	after 2 yrs. C after M	3	75	32	19	5	15	3
85	in C-O & Scl rotation		60	30	18	4	15	3
86	after 1 yr. cot after M			35	25	5	15	3
87	after 2 yrs. cot after M			50	35	5	15	3
88	In cotton middles after Scl or lespedeza			30	22	10	15	3
	On disked C stubble, RdR							
89	after 1 yr. C after M	1		80	45	7	15	3
90	after 1 yr. C after M	2 to 3		50	40	5	15	3
91	after 2 yrs. C after M	2 to 3		80	50	7	15	3
92	after 3 or more RC or SG			92	55	7	15	3

GRAIN w/o MEADOW SEEDING

Line No.	Cover, sequence & management	1	2	3g	3p	4
93	Straw left on	(Select from		10	15	10
94	Straw removed	lines 75-92)		10	15	20

GRAIN ON PLOWED SEEDBED

Line No.	Cover, sequence & management	Crop-stage period: F	1	2	3	4
95	Prior-crop RdR	65	70	45	(Select from	
96	Moderate residues under	42	60	40	lines 75-94)	
97	Heavy residues under	30	45	30		

DOUBLE CROPPED

Line No.	Cover, sequence & management	Crop-stage period: 1	2	3	4	Winter
98	Wheat (grain) & lespedeza (hay)	25	25	5	5	—
99	Wheat & lespedeza both grazed	25	25	12	6	—
100	Spring oats (hay) & lespedeza (hay)	50	18	5	5	12

[1] Definition of abbreviations: cl—clover; C—corn; cot—cotton; g & l—grass & legume; HF—heavy fertilization; M—meadow; MF—moderate fertilization; O—oats; RC—row crop; RdL—crop residues left; RdR—crop residues removed; SG—small grain; WC—winter cover; w/o—without; W—wheat; Scl—sweetclover; V—vetch, Crot—crotolaria.

[2] Please refer to sub-section entitled Cropping-Management Factor (C) for explanations and supplemental information.

† Reprinted with permission of the Soil Science Society of America.

These dates were established by a committee using recommended seeding dates and information contained in *Agricultural Trends in Tennessee 1866-1958*, published by the Tennessee Department of Agriculture.

To use the data in Table 2 to compute C factors, the expected distribution of the rainfall-erosion index within the year for the specified location must be known. In Tennessee the monthly distribution pattern of the rainfall-erosion index was found to be nearly identical for all locations in the eastern part of the state. Similarly, the distribution pattern for different locations in western Tennessee were nearly identical. But the distribution pattern in the eastern part of the state was quite different from that in the western part. The two curves are shown in Figure 3. The dividing

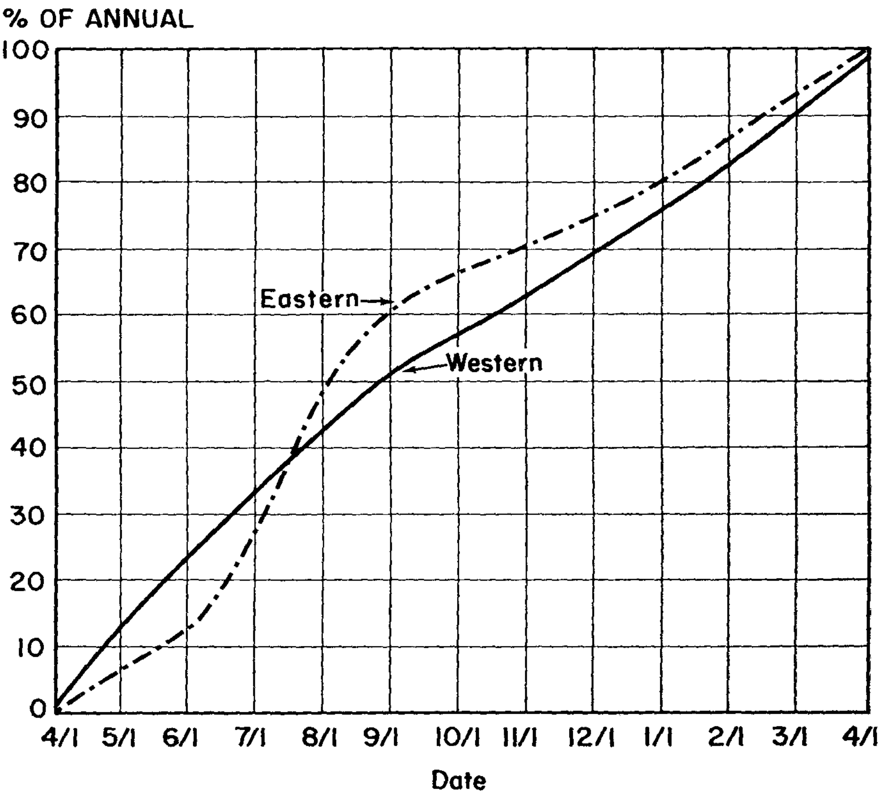

Figure 3. Cumulative monthly distribution of erosion potential in eastern and western Tennessee.

line between East and West Tennessee closely approximates the western escarpment of the Cumberland Plateau.

Figures 4 and 5 are rainfall-erosion index distribution curves for East and West Tennessee, respectively. In these curves, cumulative values of the index from April 1 are expressed as percentages of the annual index values and plotted against the days of the year. Conversions of the rainfall-erosion index values to percentages make possible the preparation of tables of cropping-management (C) values (*4, 8*).

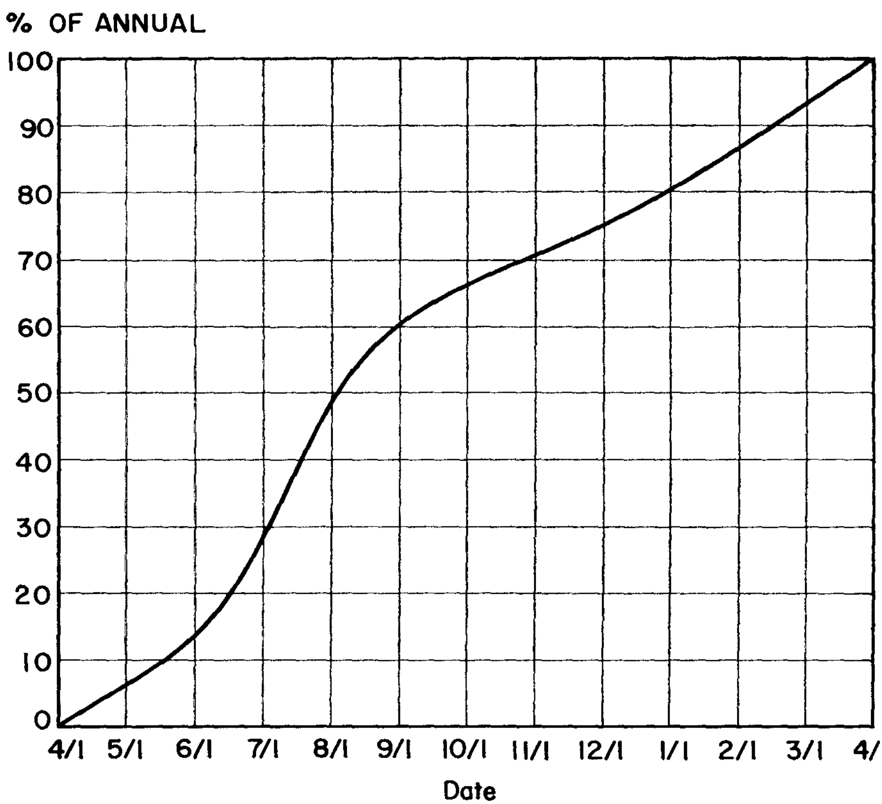

Figure 4. Monthly distribution of rainfall erosion index for eastern Tennessee (Cumberland Mountains and all eastward).

The method for computing cropping-management (C) factor values based on seeding and harvest dates, probable level of produc-

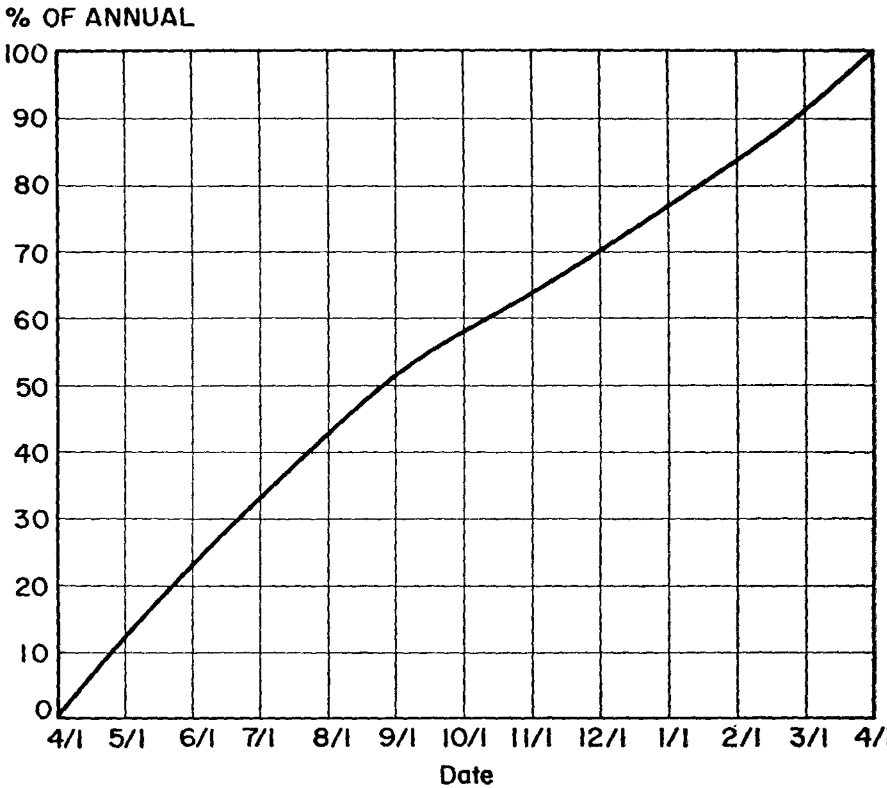

Figure 5. Monthly distribution of rainfall erosion index for western Tennessee (all of Tennessee west of the Cumberland Mountains).

tion, and local rainfall pattern is illustrated by the following example:

Problem: Determine the cropping-management (C) factor value for a 3-year rotation of corn, oats-with-meadow-seeding, and meadow in eastern Tennessee. The fertility and management levels are such that average yield equivalent of 60 bushels of corn, 1 to 2 tons of hay, and at least 30 bushels of oats per acre can be expected. The corn is for silage. The oats are for grain and will be early-seeded and the straw will be removed. The meadow will be a grass-legume mixture of orchardgrass and red clover seeded in the fall with the oat crop. Cultivation will be up and down across the slope not on the contour.

The use of Table 3, a work sheet for calculating C factor values, is demonstrated.

Tabel 3. Work sheet for calculating "C" factor values in soil-loss predicting equation

Cropping management system for Eastern Tennessee;

Three year cycle of Corn (silage)—Small Grain (early seeded) Rd. r. Meadow (gr. l.) seeded in Small gr. Yields—Corn 60 bu. equivalent, Meadow 1-2 tons.

(1) Dates	(2 Point Reading on R Curve	(3) Crop Stage Period	(4) % of Rainfall Index	(5) Line No.	(6) Av. % of Loss from Fallow		(7) Cropping-Mgmt. "C" Factor Val.
5/1	6	XXXXXXXX	XXXXXX		XXXXX		XXXXXX
5/20	11	F	5	15 x	15	=	.0075
6/20	22	C1	11	15 x	30	=	.0330
7/20	42	C2	20	15 x	27	=	.0540
9/1	61	C3	19	15 x	15	=	.0285
9/10	63	C4	2	15 x	45	=	.0090
10/10	68	Sg1	5	90 x	50	=	.0250
11/10	72	Sg2	4	90 x	40	=	.0160
6/10	17	Sg3	45	90 x	5	=	.0225
8/10	54	Sg4	37	90 x	3	=	.0111
To 3rd 5/1	6	M3	152	66 x	0.6	=	.0091

Total 300

Total for cycle .2157

Average annual "C" value .072

Columns 1 and 3: Record in Table 3 column 1 the dates for plowing, seeding, and harvesting given in Table 1 for each crop in the rotation. Record the crop-stage periods as defined for each crop in the rotation in column 3.

Column 2: Refer to Figure 4, the monthly distribution of rainfall-erosion index for eastern Tennessee. Record in this column by dates the appropriate point readings from the rainfall-erosion index curve.

Column 4: Determine the percent of the rainfall-erosion index for each crop-stage period by finding the difference between the values for each crop-stage period ending date (see column 2 for these values). Example: Subtract period F value in column 2 from period 1 value and record the difference in column 4 opposite period 1. This value is the percent of the rainfall-erosion index for period 1. Complete by successive subtractions. Check for errors by totaling column 4. The total should equal 100 times the number of years in the rotation.

Column 5: Although not directly related to evaluating the C factor for the rotation, it is helpful to record the line numbers shown on Table 2 from which the values in column 6 are taken. This enables quick back-reference in case there is a need to do so.

Column 6: Read these values from pertinent lines in Table 2. In this problem the corn follows a grass-legume meadow yielding 1-2 tons per acre and the expected silage yield is equivalent to 60 bushels of corn (1 ton silage equivalent to 5 bushels of corn). Line 15 would be the correct line. The first five values in column 6 are read from line 15 of Table 1. Since the corn will be removed for silage, the value in column 4 Rdr would be applicable. The other values entered in column 6 for this problem were taken from the lines on Table 2 indicated in column 5.

Column 7: Enter here the product of column 4 times column 6. This is the ratio of soil loss by crop-stage periods to the corresponding loss from continuous fallow under identical soil and rainfall conditions. Both columns 4 and 6 are percentages; therefore, when the percent sign is dropped, the products in column 7 have four places to the right of the decimal point.

The total of column 7 (.2157 in this example) is the cropping-management value which would apply to this 3-year cropping system in eastern Tennessee. Since the average annual soil-loss estimates are desired, this value must be divided by the number of years in rotation. In the example, the average annual soil-loss (or C factor) would be .072 (or 7.2%) of the corresponding loss occurring under continuous fallow on the same field.

In selection of values from Table 2, the following interpretations are pertinent:

When the rotation to be evaluated involves crops or sequences not directly listed in Table 2, the line which most nearly represents the conditions should be used. Such comparisons should be made for each crop-stage period. Different lines can be used for different periods of the same crop year. For example, if corn follows first year cotton after meadow, values used for corn periods F and 1 should be taken from the line for second year cotton.

Table 2 is used by considering cover, crop sequence, residue management, and productivity, in that order. The crop yield value should be the expected average yield. This does not mean the yield attainable in the best years. If the incidence of meadow failures is high in the area due to climatic conditions, expected failures must be included in the estimate of the expected yield average. From an erosion standpoint, the adverse effects of a meadow failure in a rotation far outweighs the gains from an occasional good meadow year.

When small grain yields are equal to 15 or more bushels of wheat, column 3g in lines 75-94 of Table 2 applies. If yields are equivalent to less than 15 bushels of wheat, use column 3p.

Column 4 values in lines 75-92 of Table 2 assume new meadow growth in grain residues and are average values for the period from small grain harvest to 2 months later. After that date, values from lines 65-69 apply.

The values for winter cover (lines 9-10, 36-41, and 61-64 in Table 2) apply for vetch, rye and vetch, ryegrass, and grass-legume combinations seeded early enough to become established before winter. The values for period 4 result from winter cover established in the current year. Those for periods F, 1, and 2 are the result of residual effects of winter cover crops plowed under immediately preceding the current crop. When small grain is seeded alone as a winter cover crop between 2 years of row crop, all values are the same as for the row crop without winter-cover seeding except that wheat periods 1 and 2 are substituted for corn or cotton period 4 (4, 8, 11).

Values for corn are about the same as for cultivated soybeans. Close-drilled or broadcast beans have not been successfully evaluated.

For fertilized grass and legume meadows managed for sustained high productivity, values in lines 16, 17, 29, 34, and 35 of Table

2 may be reduced 10% for row crops following 2 or more years of meadow. But this reduction applies only for meadows yielding more than 2 tons of hay and where management does not permit meadow deterioration in succeeding years (*8*).

The detailed procedure described here for determining cropping-management factor values need not be used each time the soil-loss predicting equation is applied. Values can be computed for each of the common cropping systems and management levels and arranged in table form for any given location. Tables 6a and 6b in the Appendix are C factor values for most cropping-management systems used on Tennessee Farms.

Conservation Practice Factor (P)

The experimental plots from which the erodibility factor values were determined were up and down hill cultivated fallow. Factor values to measure the effects of contour farming, contour stripcropping, and terracing or certain combinations of these were established in 1956. Data used came from research results from using these practices at three different locations—LaCrosse, Wis., Bethany, Mo., and Urbana, Ill. (3, 4, 6, 11).

Contour farming is an effective conservation practice when properly used. Its effectiveness depends on row ridges, made with tillage implements, which retard water running down hill. Soil loss from contoured fields may range from 100% to 50% of that expected from up-and-down tillage, depending on the steepness of slope. Contouring appears to produce its maximum average effects on medium slopes. As the slope decreases, the erosion control effectiveness becomes less. As the slope increases, the amount of water retained by contour rows decreases and the rate of soil loss increases. Contouring provides almost complete protection for individual storms of low intensity, but for severe storms that cause excessive row breakage, it provides little or no protection.

Soil loss under contour stripcropping averages about 50% of that from contouring alone. However, this reduction only considers the off-field movement of soil. Much of the soil washed from cultivated strips in a contour stripcropped field is filtered out in the first few feet of the meadow strips. Soil movement and sedimentation within the field are not accounted for by the contour stripcropping factor.

Field stripcropping is growing crops in strips or bands across the general slope following the land contour where possible. Crops which are arranged so that a strip of grass or close-growing crop alternates with a clean-tilled crop are more effective in reducing soil loss than contouring alone, but less effective than contour stripcropping. Therefore, the practice values for field stripcroppings were set by the Tennessee committee at a point mid-way between the contouring and contour stripcropping factor values.

The contour stripcropping factor value is based on the cropping systems used in the research work. This was a corn-small grain-2 years meadow rotation with the meadow strips alternating with grain. When the cropping system used in stripcropping is less effective, a larger factor value should be used which will reflect the reduced effectiveness of the rotation (system) in reducing soil loss.

Terraces intercept and divert water running down the slope before it reaches velocities that cause damaging erosion. Soil saved is due to the shortened slope length and deposition in the terrace channel along with the effectiveness of contour farming.

Wischmeier and Smith (*4*) state that "If all furrow slices between terraces were turned up slope periodically with a two-way plow, most or all the soil washed into the terrace channel would be effectively moved back up the slope and a factor value based on the off-the-field rate of loss could be safely applied. Limited data indicate the terrace factor in this case should be about 20% of that for contouring. But in most farming operations, conventional plows are used and the soil deposited in the terrace channel is not returned to the interterrace interval to help maintain soil productivity.

"It is logical to assume that the total movement of soil within a terrace interval is equal to that with contouring alone on the same length and percentage of slope. Erosion control between terraces depends upon the crop rotation and other management practices. Therefore, if a control level is desired that will maintain soil movement between terraces within the soil-loss tolerance limit, the practice factor for terracing should equal the contour practice factor."

In Tennessee, most workers now have the objective of keeping soil movement between terraces within the soil loss tolerance limit. Therefore, when computing soil loss from terraced fields, use the contouring factor value, and for determining the combined SL factor, use a slope length equal to the recommended horizontal spacing between terraces for the percent slope of the field. No adjustment is made in slope length for contoured and stripcropped fields. The full field slope length is used for determining the combined SL factor value.

Table 7 in the Appendix lists the conservation practice factor values. Table 8 gives the recommended horizontal spacing between terraces for different percent slopes in Tennessee.

If the soil-loss predicting equation is being used to compute gross erosion in sedimentation studies, a terrace practice factor 20% of the contour factor shown in Table 7 is suggested. This more accurately reflects the off-field soil loss. Use of the full contour factor accounts for both off-field losses and soil that is eroded and deposited in the terrace channels (*4, 6, 11*).

Soil Loss Tolerance Values (T)

The soil loss tolerance (T) value is the estimated average annual soil loss than can be tolerated and yet achieve the degree of conservation needed for sustained, economical production in the foreseeable future. It is expressed as average annual soil loss in tons per acre per year.

Tolerance values give meaning to the soil loss predicting equation. A comparison of the calculated predicted soil loss (A) arrived at through use of the equation with the tolerance value (T) for a soil indicates the degree to which present cropping-management and conservation practices are adequate. Furthermore, such comparison suggests the kind of cropping-management and conservation practices needed to keep predicted soil losses equal or less than the tolerance rate for the field under study (*3, 4*).

At the present time, tolerance values are estimates. Data are not available with which to evaluate precisely the many items that must be considered in setting an erosion tolerance standard for a soil. Tolerance values for Tennessee soils were established by multiple judgment decisions after considering various pertinent factors, and relating Tennessee soils to a few benchmark soils for which tolerance levels had been established. The more important items taken into account in arriving at soil-loss tolerance values were:

- The maintenance of an adequate soil depth favorable for plant roots.
- The maintenance of tilth favorable for crop production.
- The reduction in crop yields per inch of topsoil lost.
- Changes in soil moisture relationships due to changes in texture, infiltration, percolation, or water storage capacity.
- Seeding losses.
- Off-site sedimentation damage such as deposition in lakes and

flood retention reservoirs, stream channels, and on overflow cropland.

It is generally agreed that the maximum soil-loss tolerance for even the most favorable situation should not be greater than 5 tons per acre per year. The consensus of opinion is that rates greater than this will cause serious sedimentation and other problems. Soil-loss tolerances for Tennessee range from 1 to 5 tons per acre per year.

One acre-inch of soil weighs about 150 tons. At a soil-loss tolerance (T) of 5 tons per acre per year, it would require 30 years to erode 1 acre-inch of soil. However, erosion does not occur at a uniform rate from the top to the bottom of the slope. Since the 5-ton tolerance is an average for the entire slope, this would mean that one part of the slope might be losing 10 tons of soil per acre annually, resulting in a loss of 1 inch in 15 years. And, of course, another part might be losing at the rate of only 2.5 tons per acre per year.

Table 5 in the Appendix gives the soil-loss tolerance values for most Tennessee soils. Two values are given for most soil types depending on the degree of existing erosion in the field. Table 5 also lists the calculated T/K values by soil types and degree of erosion. The need for a ready reference of these values is explained in the next section.

USING THE EQUATION

Use of the soil-loss predicting equation can best be explained by considering the following example:

Assume a field in Maury County, Tennessee which consists of a Maury silty clay loam soil moderately eroded on an 8% slope that is 300 feet long.

The cropping-management of recent years has been a 3-year cycle of corn-wheat-meadow; an average production of 60 bushels of corn per acre (residue left on the field), and 1-2 tons of hay has been realized. Straight-row cultivation up and down the slope has been practiced.

To develop information on soil losses, first write down the equation (Page 2) A = RKLSCP. Then assign values to the factors RKLS as given for the field above:

R = 240 (See Table 4, Appendix, and Figure 2, page 11)
K = 0.34 (See Table 5 alphabetical listing)
LS = 1.7 (See Figure 6)

Multiplying these factors together gives a value of 138.7 tons of soil which would erode from this field if it were tilled continuous fallow. But the field as cropped and managed has a C-factor value of .079 (See Table 6b, Appendix) which means that the expected erosion would be only 7.9% of the 138.7 tons or 11 tons per acre per year.

Since the cultivation has been up and down the slope, the practice factor value for this initial calculation would be 1 and would not change the calculated soil loss.

Now check to see what the soil-loss tolerance (T) is for moderately eroded (2 erosion) Maury soil (See Table 5 Appendix alphabetical listing). You will note that T = 4 tons per acre per year. However, the calculated soil loss for the recently followed cropping-management with up and down hill tillage gives an annual soil loss of 11 tons per acre. The problem now is to find a management system that will reduce the expected annual soil loss to 4 tons per acre or less.

To explore the possible alternatives, calculate the effect of contour cultivation on the 11 tons per acre soil loss. (See Table 7 Appendix). The P factor for contouring on an 8% slope is 0.60. Thus by using contour cultivation, soil loss should be only 60% of that resulting from up-and-down hill tillage. Multiplying 11 by 0.60 gives 6.6 tons per acre—still more than the estabished 4-ton tolerance. Further reduction must be accomplished.

Now, check the effect of field stripcropping on the 11 ton-per-acre soil loss. The P factor value for field stripcropping on an 8% slope is 0.45 (Table 7 Appendix), or midway between contouring and contour stripcropping. This means that by field stripcropping, soil loss will be 45% of that with up-and-down hill tillage. Eleven times 0.45 gives nearly 5 tons per acre per year. This approaches tolerance but does not quite reduce losses to the 4-ton level.

Next, try contour stripcropping. The P factor value for contour stripcropping on an 8% slope is 0.30 (Table 7 Appendix). Multiply 11.0 x 0.30. This gives an expected average annual soil loss of 3.3 tons per acre per year if contour stripcropping is used—well below the established tolerance for this soil.

It is now known that this farmer can continue to use his present cropping-management and reduce expected soil loss below tolerance if he will practice contour stripcropping. But he may not wish or need to install contour stripcropping. Therefore, other methods of keeping soil losses to realistic levels need to be considered.

Terraces could be constructed on the field. The P factor value for terracing plus contouring on an 8% slope is 0.60 (Table 7 Appendix). But before applying this factor, a new SL factor must be calculated for the slope length of one horizontal terrace spacing on an 8% slope. (See Table 8 Appendix for terrace spacings, which is 56 feet for an 8% slope.) The combined SL value for an 8% slope 56 feet long is 0.7 (Figure 6 Appendix). Substitute this factor in the initial calculation for 1.7. The product of the values for RKLS now is 57.1 tons per acre expected average annual soil loss for this field with an 8%, 56-foot long slope in tilled, continuous fallow. Applying the cropping-management factor—.079 for the 3-year rotation and practice factor of 0.60 (P factor for a terraced, 8% slope)—gives 3.2 tons per acre, the average annual soil loss to be expected from the field if terraced and farmed on the contour.

Next, assume the farmer does not want to install either contour stripcropping or terraces but will practice contour farming. The problem would then become one of selecting a cropping-management system that would limit the expected soil loss within 4 tons per acre per year with contouring. The initial calculation (R times K times LS) times 0.60 (practice factor for contouring on an 8% slope) gives 83.2 tons per acre. This is the expected average annual soil loss from the field when in tilled continuous contour fallow.

To find a cropping-management factor that will reduce the soil loss to 4 tons per acre per year, place the 83.2 value in a proportion as follows: 83.2 : 1.00 = 4:X. Solving this proportion, X = 0.043. This is the maximum value that the C factor can have to give an expected soil loss of 4 tons. To make selections of adequate cropping-management systems, refer to Table 6b Appendix. Note that the systems in this table are arrayed in order of increasing frequency of row crops in the cropping system. Systems 1 through 11 with contouring would result in expected soil losses of less than 4 tons per acre per year. The cropping system listed on line 11, Table 6b, consisting of corn-small grain (residue left), and 4 years of a grass-legume meadow yielding 2-3 tons with the corn crop yielding 70 bushels per acre, can be used. The C factor value for this cropping-management system is .037, and the expected average annual soil loss will be 3.07 tons per acre (83.2 times .037).

Any of the above three management systems will keep expected soil losses within tolerable limits on this field and yet allow the farmer to grow the crops he wishes to grow.

The factors in the equation over which the farmer has some control, such as cropping-management (C) and conservation practice (P), would be easier to handle if considered apart from the other factors in the equation. Various combinations of values for these two factors, C and P, will keep expected soil loss below tolerance limits. The equation can be adapted so that different cropping-management systems and conservation practices or combinations of the two can be arrived at more easily.

The fixed factors for a given situation may be easily determined. The rainfall (R) and soil erodibility (K) factors may be found in Tables 4 and 5, Appendix for a given location and soil. Since the length (L) and steepness (S) of slope (except when terraced) may be considered characteristics of the soil, they too may be combined with those factors over which the farmer has no control. The combined value for S and L may be determined from Figure 6, Appendix.

Since the objective is to keep soil losses below tolerance, substitute tolerance (T) for the annual soil loss (A) in the basic equation. This will help in determining the necessary cropping-management (C) and conservation practice (P) for a given soil situation.

Dividing both sides of the basic equation (A = RKLSCP) by the factors over which the farmer has no control, RKLS, the equation becomes $\frac{A}{RKLS} = CP$. Substituting T for A as discussed above, the equation is now written $\frac{T}{RKLS} = CP$ or $\frac{1}{R} \times \frac{T}{K} \times \frac{1}{LS} = CP$[1]. Solving this equation for any given soil situation, we can determine what combination of C and P that is necessary to keep expected soil loss equal to the tolerance. By equating P to 1, we can determine what value C must have to keep the soil loss equal to tolerance without the bene fit of a conservation practice.

Using the equation in this form, Tables 9-150 through 9-310, Appendix have been developed for each constant R value for intervals of 20. The necessary cropping-management (C) factor values can be found in these tables with or without conservation practices. Calculations were made for slopes ranging from 2% through 12%, and lengths ranging from 100 feet through 400 feet for each $\frac{T}{K}$ value. Straight line interpolations can be made for R and $\frac{T}{K}$ values between those listed. Also, the necessary C value for field

[1] Necessary value to meet soil-loss tolerance (T)

stripcropping can be determined by interpolating between the values given for contouring and contour stripcropping.

To use the tables for the Maury County field described in previous examples, first turn to Tables 9-230 and 9-250, Appendix. Use of both tables will be necessary since there is no table for an R factor of 240—the rainfall factor for Maury County (Table 4, page 34, Appendix). Next refer to Table 5 page 35 and find the T/K value for Maury silty clay loam. This value is 12 for the moderately eroded phase. Now on Table 9-230, find the lines designated 12 under the T/K column.

To determine the C factor value for the 8%, 300-foot slope when contour stripcropped, find the appropriate slope length and percent column and line for the T/K value of 12. From Table 9-230, Appendix, a C value of .100 is listed for this slope length and steepness and on Table 9-250 the C value is .094. By linear interpolation, a cropping-management value of .097 will be necessary to keep annual soil losses equal to the established 4-ton tolerance.

A slide calculator that makes possible rapid calculations of the necessary cropping-management (C) factor value, with or without practices, was developed. Instructions for use of the slide calculator are under the back of the calculator. Also, a number of graphs and curves have been devised for fast solution of the equation.

APPENDIX

Table 4. Rainfall-erosion index factor "R" values by counties—Tennessee

COUNTY	R-Factor Values	COUNTY	R-Factor Values
Anderson	190	Lauderdale	280
Bedford	230	Lawrence	270
Benton	230	Lewis	250
Bledsoe	230	Lincoln	250
Blount	200	Loudon	210
Bradley	260	McMinn	230
Campbell	180	McNairy	310
Cannon	230	Macon	200
Carroll	210	Madison	260
Carter	150	Marion	250
Cheatham	210	Marshall	240
Chester	300	Maury	240
Claiborne	150	Meigs	230
Clay	200	Monroe	220
Cocke	170	Montgomery	200
Coffee	230	Moore	240
Crockett	270	Morgan	200
Cumberland	220	Obion	260
Davidson	210	Overton	210
Decatur	250	Perry	250
DeKalb	220	Pickett	200
Dickson	220	Polk	250
Dyer	260	Putnam	220
Fayette	320	Rhea	230
Fentress	200	Roane	210
Franklin	250	Robertson	200
Gibson	250	Rutherford	230
Giles	260	Scott	180
Grainger	170	Sequatchie	250
Greene	150	Sevier	180
Grundy	240	Shelby	300
Hamblen	170	Smith	210
Hamilton	260	Stewart	210
Hancock	150	Sullivan	140
Hardeman	320	Sumner	200
Hardin	300	Tipton	300
Hawkins	150	Trousdale	210
Haywood	300	Unicoi	150
Henderson	250	Union	170
Henry	230	Van Buren	230
Hickman	230	Warren	230
Houston	220	Washington	150
Humphreys	230	Wayne	280
Jackson	210	Weakley	250
Jefferson	180	White	220
Johnson	150	Williamson	230
Knox	190	Wilson	210
Lake	260		

Table 5. Soil-erodibility factor (K) values, soil loss tolerance (T) values, and T/K values by soils and erosion class—Tennessee

	Erosion 1 & 2			Erosion 3	
	K	T	T/K	T	T/K
Alcoa	0.30	4	13	3	10
Allen	0.32	4	13	3	9
Altavista	0.32	4	13	3	9
Apison	0.37	3	8	2	5
Armour	0.32	4	13	3	9
Armour-ch	0.28	4	14	3	11
Armuchee	0.43	2	5	1	2
Ashburn	0.32	3	9	2	6
Ashe, Mod. Shallow	0.24	2	8	1	4
Ashwood	0.32	2	6	1	3
Barbourville	0.28	4	14	3	11
" gr.	0.24	4	17	3	12
Baxter ch	0.32	3	9	2	6
Baxter	0.32	3	9	2	6
Bedford	0.43	3	7	2	5
Bewleyville	0.37	4	11	3	7
Bland	0.43	2	5	1	2
Bodine ch	0.24	2	8	1	4
Bolton	0.34	4	12	3	9
Boswell	0.43	2	5	1	2
Brandon	0.37	3	8	2	5
Brandon gr	0.32	2	6	1	3
Braxton	0.32	3	9	2	6
" ch	0.32	3	9	2	6
Brittain	0.42	3	7	2	4
Calloway	0.43	2	5	1	2
Camp	0.32	4	13	3	9
Capshaw	0.43	3	7	2	5
Captina	0.43	3	7	2	5
" cherty	0.37	3	8	2	5
Caylor	0.32	4	13	3	9
Center	0.37	3	8	2	5
Chandler shallow	0.32	2	6	1	3
Chilhowie	0.32	2	6	1	3
Christian sil	0.37	3	8	2	5
" sl	0.37	3	8	2	5
Claiborne	0.32	4	13	3	9
Clarksville	0.24	3	13	2	8
Clifton	0.32	4	13	3	9
Colbert	0.43	2	5	1	2
Conasauga	0.43	4	9	3	7
Cookeville	0.37	3	8	2	5
Crider	0.37	4	11	3	8
Crossville	0.24	2	8	1	4
Culleoka	0.28	3	11	2	7
Culleoka flag	0.22	3	14	2	9
Cumberland	0.32	4	13	3	9
Cuthbert	0.43	2	5	1	2
Dandridge	0.32	3	9	2	6
Decatur	0.32	3	9	2	6
Dellrose	0.20	4	20	3	15
Dewey	0.32	3	9	2	6
Dexter	0.37	4	11	3	8
Dickson	0.43	3	7	2	4

	Erosion 1 & 2			Erosion 3	
	K	T	T/K	T	T/K
Donerail	0.37	3	8	2	5
Dowellton	0.40	2	4	1	2
Dulac	0.43	2	5	1	2
Dunmore	0.43	3	7	2	5
Elk	0.32	4	13	3	9
Elliber cherty	0.24	3	13	2	8
Emory	0.28	4	14	3	11
Enders	0.37	3	8	2	5
Etowah	0.32	4	13	3	9
Eustis	0.17	5	29	5	29
Fannin	0.43	3	7	2	5
Farragut	0.37	3	8	2	5
Frankstown, cherty	0.28	3	11	2	7
Freeland	0.37	3	8	2	5
Fullerton	0.32	3	9	2	6
" ch	0.28	3	11	2	8
Greendale	0.28	4	14	3	11
Grenada	0.43	3	7	2	5
Groseclose	0.43	3	7	2	5
Guin	0.17	2	12	1	6
Hagerstown	0.32	4	13	3	9
Halewood	0.32	3	9	2	6
Hampshire	0.42	3	7	2	5
Hartsells	0.24	3	13	2	8
Hatchie	0.43	2	5	1	2
Hayter	0.28	4	14	3	11
Hector	0.32	2	6	1	3
Hermitage	0.34	4	12	3	9
Hicks	0.37	3	8	2	5
Hiwassee	0.32	4	13	3	9
Holston sil	0.32	4	13	3	9
" sl	0.28	4	14	3	10
Humphreys	0.32	4	13	3	9
" ch	0.28	4	14	3	11
Inman	0.43	3	7	2	5
Jefferson	0.28	4	14	5	11
Johnsburg	0.43	3	7	2	5
Lakeland	0.17	5	29	5	29
Landisburg	0.43	3	7	2	5
Lax	0.37	3	8	2	5
Leadvale	0.43	3	7	2	5
Lehew	0.32	3	9	2	6
Lexington	0.37	3	8	2	5
Linker	0.28	3	11	2	7
Lintonia	0.37	4	11	3	8
Litz sil.	0.32	3	9	2	6
Loring	0.37	4	11	3	8
Luverne	0.37	3	8	2	5
Magnolia	0.32	4	13	3	9
Manse	0.28	4	14	3	11
Masada	0.34	3	9	2	6
Maury	0.32	4	12	3	9
Matney	0.32	4	13	3	9
McAfee	0.37	3	8	1	3

See footnote at end of table.

Table 5. Soil-erodibility factor (K) values, soil loss tolerance (T) values, and T/K values by soils and erosion class—Tennessee (Continued)

		Erosion 1 & 2		Erosion 3	
	K	T	T/K	T	T/K
Memphis	0.37	5	14	5	14
Mercer	0.43	3	7	2	5
Mimosa	0.43	2	5	1	2
Minvale	0.32	4	13	3	9
Minvale ch	0.28	3	11	2	7
Mobely	0.43	3	7	2	5
Monongahela	0.43	3	7	2	5
Montevallo	0.32	2	6	1	3
Mountview	0.37	3	8	2	5
Muse	0.32	3	9	2	6
Muskingum	0.28	3	11	2	7
Needmore	0.43	3	7	2	5
Neubert	0.28	4	14	3	11
Nolichucky	0.28	3	11	2	7
Oktibbeha	0.43	2	5	1	2
Olivier	0.42	2	5	1	2
Ora	0.32	3	9	2	6
Orangeburg	0.28	4	14	3	11
Pace sil.	0.32	3	9	2	6
" ch	0.32	3	11	2	7
Paden	0.43	3	7	2	5
Pearman	0.43	3	7	2	5
Pembroke	0.32	4	13	3	9
Perkinsville	0.28	3	11	2	7
Pickaway	0.43	3	7	2	5
Pickwick	0.32	4	13	3	9
Porters	0.24	2	8	1	4
Providence	0.37	3	8	2	5
Rabun	0.32	4	13	3	9
Ramsey	0.28	2	7	1	4
Ranger	0.37	2	5	1	3
Richland	0.42	3	7	2	4
Rockcastle	0.43	2	5	1	2
Russellville	0.37	3	8	2	5
Ruston fsl.	0.28	4	14	3	11
Saffell	0.20	4	20	3	15
Sango	0.43	3	7	2	5
Savannah fsl.	0.37	3	8	2	5
Sequatchie	0.28	4	14	3	11
Sequoia	0.43	3	7	2	5
Shouns	0.28	4	14	3	11
Shubuta	0.43	2	5	1	2
Silerton	0.42	3	7	2	4
State	0.28	4	14	3	11
Steekee	0.37	2	5	1	3
Sulphura	0.32	2	6	1	3
Sumter	0.49	2	4	1	2
Susquehanna	0.49	2	4	1	2
Swaim	0.43	2	5	1	2
Talbott	0.43	2	5	1	2
Talladaga	0.37	2	5	1	3
Tate	0.28	4	14	3	11
Teas sil.	0.32	3	9	2	6
Tellico	0.32	4	13	3	9
Tickfaw	0.43	2	5	1	2
Tilsit	0.43	3	7	2	5
Tippah	0.43	2	5	1	2
Tupelo	0.43	2	5	1	2
Tusquitee	0.24	4	17	3	12
Tyler	0.43	2	5	1	2
Upshur	0.43	3	7	2	5
Vaiden	0.43	2	5	1	2
Watauga	0.34	4	12	3	9
Waynesboro	0.32	4	13	3	9
Wellston	0.32	4	13	3	9
Westmoreland	0.37	3	8	2	5
Wolftever	0.43	3	7	2	5
Woolper	0.32	3	9	2	6

[1] Soil-erodibility factor (K) value applies to all erosion classes.

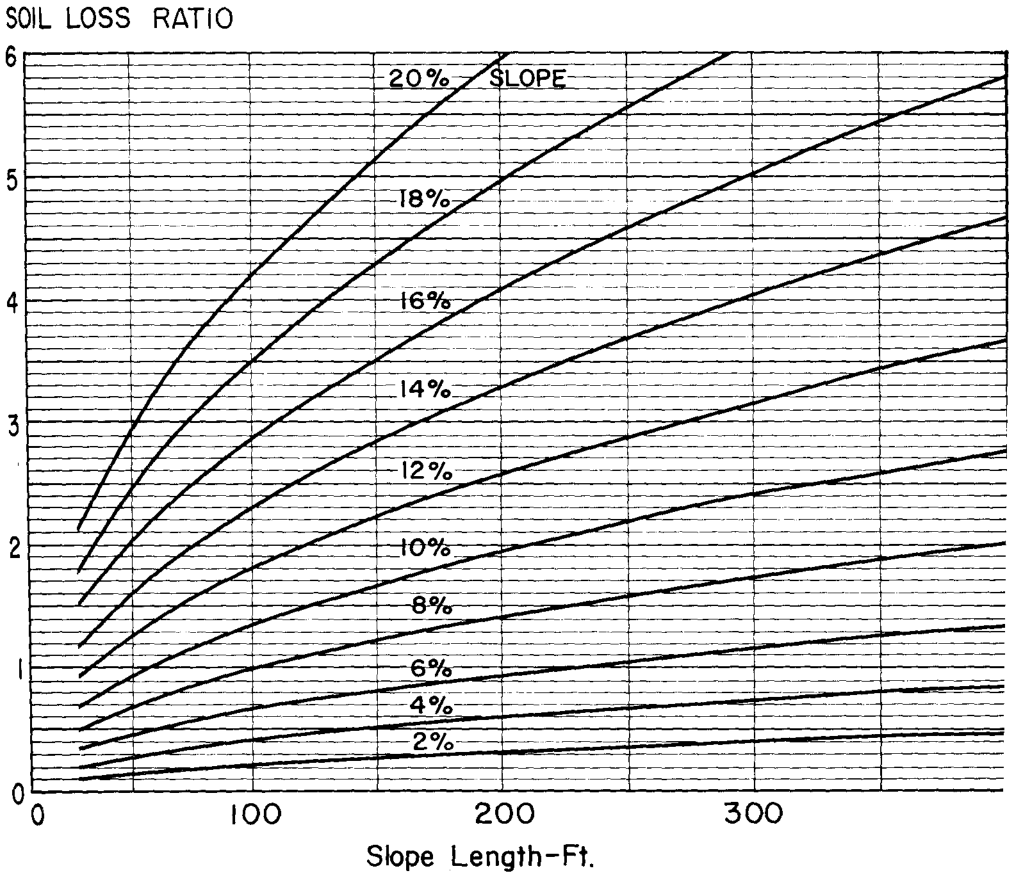

Figure 6. Chart for adjusting plot soil loss to length and degree of slope.[1] *Source:* (6).

[1] *Reprinted with permission of the Agricultural Engineering Society of America.*

Table 6a. Cropping-management factors (average annual C factor values) for cropping systems in Eastern Tennessee

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
1	Meadow, well established, Grass-legume	2.5+		.004
2	Meadow, well established, Grass-legume	1-2		.006
3	Meadow, well established, Grass-legume	----		.010
4	Meadow, Annual lespedeza for seed rd.l.			.010
5	Meadow, Continuous sericea after second year			.010
6	Meadow, renovated 1 in 6 years, turn-plow and fallow (Aug. 1-30)	2.5+		.013
7	Meadow, well established, Red Clover	2		.015
8	Meadow, well established, annual lespedeza, hay or grazed			.020
9	Meadow, well established, sweet clover	2		.025
10	4 Small Grain, rd.l. (early seeded)-M-M-M (gr. leg. seeded after sm. gr. harvest)	1-2	(wh.15+)	.037
11	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr.leg. meadow seeded after sm.gr. harvest)	2-3	70	.037
12	4 Wheat, rd.l. (late seeded)-M-M-M (gr. leg. seeded after wheat harvest)	1-2	(wh.15+)	.046
13	3 Small Grain, early seeded rd.l. -M-M (gr. leg. seeded after sm. gr. harvest)	1-2	(wh.15+)	.047
14	4 Wheat, rd.r. (late seeded and overseeded with a. lesp.) -M-M-M (a. lesp.)	1-2	(wh.15+)	.048
15	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr. leg. meadow seeded after sm.gr. harvest)	1-2	60	.051
16	5 Corn, rd.l. sm. gr. (late seeded) rd.l.-M-M-M (gr. leg. seeded after sm.gr. harvest)	2-3	70	.051
17	3 Corn, (silage)-M-M (early seeded gr. leg.)	2-3	70	.053
18	2 Small Grain, early seeded and overseeded with a.lesp. rd.r.-M (a.lesp)		(wh.15+)	.053
19	3 Wheat, late seeded and overseeded with a.lesp. rd.r.-M-M (a.lesp.)	1-2	(wh.15+)	.057
20	3 Wheat, late seeded rd.l.-M-M (gr.leg. seeded after wheat harvest)	1-2	(wh.15+)	.059
21	3 Corn, (silage)-sm.gr. (early seeded) rd.r.-M (gr.leg. seeded in sm.gr.)	2-3	70	.062
22	3 Tobacco, sm.gr. (early seeded and gr. leg. overseeded) rd.r.-M (gr.leg.)	2-3	70	.063
23	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr.leg. meadow seeded after sm.gr. harvest)	1-2	40	.063
24	4 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.063
25	6 Corn, (silage)-sm.gr.(early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.066
26	5 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.067
27	3 Corn, (silage)-M-M (early seeded gr.leg.)	1-2	60	.067
28	6 Tobacco, sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.068
29	3 Corn, (silage)-sm.gr. (early seeded) rd.r.-M (gr.leg. seeded in sm.gr.)	1-2	60	.072
30	6 Corn (silage) with W.C.-Corn (silage)-M-M-M-M (gr.leg.)	2-3	70	.073

See code to symbols at end of table.

Table 6a. Cropping-management factors (average annual C factor values) for cropping systems in Eastern Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
31	6 Corn (silage)-sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.074
32	2 Wheat, late seeded and overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	(wh.15+)	.075
33	6 Tobacco, sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.077
34	5 Corn (silage) sm.gr. (early seeded) rd.r.-M-M-M (gr.leg. early seeded following sm.gr. harvest)	2-3	70	.078
35	3 Tobacco, sm.gr. (early seeded and gr.leg. overseeded) rd.r. -M (gr.leg.)	1-2	60	.079
36	3 Corn, rd.l. sm.gr.(late seeded and overseeded in spring with red cl.) -M (red cl.)	1-2	60	.079
37	3 Corn (silage)-M-M (early seeded gr.leg.)	1-2	40	.081
38	6 Cotton-sm.gr. (late seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	HF	.081
39	5 Corn, rd.l. sm.gr. (late seeded) rd.l.-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.082
40	4 Corn, rd.l. sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.082
41	6 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.083
42	1 Small grain, continuous, rd.r. (early seeded) with a.lesp. overseeded		(wh.15+)	.086
43	3 Corn, (silage) sm.gr. (early seeded) rd.r.-M (gr.leg. seeded in sm.gr.)	1-2	40	.086
44	6 Corn, (silage) with W.C. Corn (silage)-M-M-M-M (gr.leg.)	1-2	60	.087
45	5 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M (gr.leg. early seeded following sm.gr. harvest)	1-2	60	.087
46	5 Corn, rd.l.-M-M-M-M (sericea)	1-2	40	.089
47	6 Cotton, sm.gr. (late seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	MF	.093
48	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	2-3	70	.097
49	6 Corn, (silage) with W.C.-Corn (silage)-M-M-M-M (gr.leg.)	1-2	40	.098
50	5 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M (gr.leg. early seeded following sm.gr. harvest)	1-2	40	.099
51	4 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.100
52	4 Tobacco-sm.gr. (early seeded) rd.r.-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.100
53	3 Corn, rd.l.-sm.gr. (late seeded and overseeded in spring with red cl.)-M (red cl.)	1-2	40	.105
54	4 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp. rd.r.-M-M (a.lesp.)	1-2	60	.105
55	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	1-2	60	.107
56	4 Corn, (silage) with W.C.-Corn (silage)-M-M (gr.leg.)	2-3	70	.108
57	4 Corn, rd.l.-M-M-M (sericea)	1-2	40	.108

See code to symbols at end of table.

Table 6a. Cropping-management factors (average annual C factor values) for cropping systems in Eastern Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
58	4 Tobacco, with early seeded W.C.-Tobacco-M-M (gr.leg.)	3+	75	.108
59	3 Cotton -M-M (gr.leg. spring seeded)	2-3	HF	.110
60	4 Tobacco-sm.gr. (early seeded) rd.r.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.112
61	4 Soybeans, rd.l.-sm.gr. rd.r. (late seeded)-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.114
62	4 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M-M (a.lesp.)	1-2	60	.115
63	8 Cotton- Cotton- sm.gr. rd.r. (late seeded) -M-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	HF	.115
64	4 Tobacco, with early seeded W.C.-Tobacco-M-M (gr.leg.)	2-3	70	.117
65	4 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp. rd.r.-M-M (a. lesp.)	1-2	45	.118
66	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	1-2	40	.122
67	4 Soybeans, rd.l.-sm.gr. rd.r. (late seeded)-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.125
68	4 Corn (silage) with W.C.-Corn (silage)-M-M (gr.leg.)	1-2	60	.126
69	1 Wheat, continuous, rd.r. (wheat late seeded with a.lesp. overseeded)		(wh.15+)	.132
70	4 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M-M (a.lesp.)	1-2	40	.132
71	3 Corn, (silage)-sm.gr. (early seeded) overseeded with a. lesp. rd. rl-M (a.lesp.)	1-2	60	.133
72	4 Corn, rd.l.-Corn, rd.l. with late seeded gr.leg. -M-M (gr.leg.)	1-2	60	.135
73	4 Corn, rd.l.-M-M-M (a.lesp.)	1-2	60	.136
74	3 Cotton-M-M (gr.leg. spring seeded)	1-2	MF	.137
75	4 Corn, (silage) with W.C.-Corn (silage)-M-M (gr.leg.)	1-2	40	.143
76	1 Small grain, continuous, rd.l. (early seeded)		(wh.15+)	.145
77	3 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	60	.147
78	4 Corn, rd.l.-M-M-M (a.lesp.)	1-2	45	.150
79	3 Soybeans, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	60	.150
80	3 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	45	.150
81	3 Soybeans, rd.l. (W.C.)-Soybeans, rd.l. (W.C.)-M (buttonclover for seed) rd.l.	2-3	70	.156
82	4 Cotton,-M-M-M (a.lesp.)	1-2	MF	.160
83	4 Cotton,-Corn rd.l.-M-M (gr.leg. late seeded)		HF 60 bu.	.162
84	4 Corn, rd.l.-Corn rd.l. (with late seeded gr.leg.) -M-M (gr.leg.)	1-2	40	.165
85	3 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	40	.170

See code to symbols at end of table.

Table 6a. Cropping-management factors (average annual C factor values) for cropping systems in Eastern Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
86	3 Soybeans, rd.l.-sm.gr. (late seeded) overseeded	1-2	40	.173
87	3 Corn, rd.l.-M-M (a.lesp.)	1-2	60	.175
88	6 Cotton, Cotton,-M-M-M-M (sericea)		MF	.177
89	3 Soybeans, rd.l.-M-M (a.lesp.) rd.r	1-2	60	.179
90	4 Cotton, Cotton,-M-M (gr.leg. spring seeded)	2-3	HF	.186
91	4 Cotton, Corn rd.l.-M-M (gr.leg. late seeded)		MF 40 bu.	.187
92	2 Corn, (silage) sm.gr. (early seeded) overseeded with a. lesp. rd.r.	1-2	60	.190
93	3 Cotton, with W.C. Cotton with W.C.-M-M (button clover for seed) rd.l.		HF	.193
94	3 Corn, rd.l.-M-M (a.lesp)	1-2	45	.193
95	3 Soybeans, rd.l.-M-M (a.lesp.)	1-2	45	.198
96	3 Cotton, -M-M (a.lesp.)	1-2	MF	.207
97	2 Corn, rd.l. sm.gr. (late seeded) overseeded with a.lesp. (grazed or hay)	1-2	60	.210
98	2 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp. rd.r.	1-2	45	.215
99	1 Wheat, continuous (late seeded) rd.r.		(wh.15+)	.221
100	4 Cotton,-Cotton,-M-M (gr.leg. spring seeded)	1-2	MF	.222
101	4 Corn, rd.l.-Corn rd.l.-M-M (a.lesp.)	1-2	60	.224
102	3 Soybeans, rd.l. (W.C.)-Soybeans, rd.l. (W.C.)-M (buttonclover for seed) rd.l.	1-2	40	.234
103	2 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. (grazed or hay)	1-2	40	.244
104	4 Corn, rd.l.-Corn rd.l.-M-M (a.lesp.)	1-2	45	.257
105	4 Cotton, with W.C.-Cotton with W.C.-Cotton with W.C. -M (buttonclover for seed) rd.l.		HF	.278
106	1 Sudan Millet, or Hybrid Crosses, continuous, rd.r. with early seeded W.C. rd.r.		MF	.288
107	4 Cotton, Cotton, -M-M (a.lesp.)	1-2	MF	.299
108	3 Soybeans, rd.l.-Soybeans rd.l.-M (a.lesp.)	1-2	60	.300
109	1 Corn, (silage) continuous with early seeded W.C.		75	.335
110	1 Tobacco, continuous, with early seeded grain and leg. W.C. and 8 tons of manure	3+	75	.344
111	1 Corn, continuous, rd.l. with late seeded W.C. (sm.gr.)		75	.344
112	3 Soybeans, rd.l.-Soybeans rd.l.-M (a.lesp.)	1-2	45	.346
113	1 Corn (silage) continuous with early seeded W.C.		60	.356
114	1 Corn, continuous rd.l. without W.C. seeding		75	.356
115	1 Soybeans, continuous, rd.l. without W.C.	2-3	75	.370
116	1 Soybeans, continuous, rd.l. with late seeded W.C.	2-3	75	.378
117	1 Tobacco, continuous, with early seeded grain and leg. W.C. and 8 tons of manure	2-3	45	.395
118	1 Cotton, continuous, with early seeded W.C.		HF	.407
119	1 Corn, continuous, rd.l. with late seeded W.C. (sm.gr.)		45	.436
120	1 Cotton, continuous, with late seeded W.C.		HF	.436

See code to symbols at end of table.

Table 6a. Cropping-management factors (average annual C factor values) for cropping systems in Eastern Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
121	1 Cotton, continuous, with early seeded W.C.		MF	.452
122	1 Soybeans, continuous, rd.l. with late seeded W.C.	1-2	45	.469
123	1 Corn, continuous, rd.l. without W.C. seeding		45	.474
124	1 Soybeans, continuous, rd.l. without W.C.	1-2	45	.493
125	1 Cotton, continuous, with late seeded W.C.		MF	.503
126	1 Cotton, continuous, without W.C.		HF	.507
127	1 Cotton, continuous, without W.C.		MF	.565
128	1 Tobacco, continuous, without W.C.	2-3	60	.613
129	1 Corn, (silage) continuous without W.C.		60	.625
130	1 Tobacco, continuous, without W.C.	1-2	40	.665
131	1 Corn, (silage) continuous, without W.C. seeding		40	.677
132	Continuous fallow (2 or more years)			1.000

Code to symbols used

gr. leg.—grass legume mixture; M—meadow used for hay or grazed with residue removed unless otherwise indicated; MF—1 bale or less per acre of lint cotton. HF—more than 1 bale per acre of lint cotton; rd.l—residue left; rd.r.—residue removed; wh—wheat; sm.gr.—small grain; W.C.—winter cover; Early seeded—seeding made by 9/15; Late seeded—seeding made by 10/15.

Table 6b. Cropping-management factors (average annual C factor values) for cropping systems in Western Tennessee

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
1	Meadow, well established, Grass-legume	2.5+		.004
2	Meadow, well established, Grass-legume	1-2		.006
3	Meadow, well established, Grass-legume	—		.010
4	Meadow, well established, a.lesp., for seed rd.l.			.010
5	Meadow, well established, Cont. Sericea after second year			.010
6	Meadow, renovated 1 in 6 years, Turn-plow and fallow (Aug. 1-30)	2½ +		.013
7	Meadow, well established, Red Clover	2		.015
8	Meadow, well established, a.lesp, hay or grazed			.020
9	Meadow, well established, Sweet Clover	2		.025
10	Small Grain, rd.l. (early seeded) M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	(wh.15+)	.038
11	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr.leg. meadow after sm.gr. harvest)	2-3	70	.041
12	5 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.049
13	3 Small Grain, early seeded rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	(wh.15+)	.049
14	4 Wheat, rd.l. (late seeded)-M-M-M (gr.leg. seeded after wheat harvest)	1-2	(wh.15+)	.051
15	3 Corn, (silage)-M-M (early seeded gr.leg.)	2-3	70	.052

See code to symbols at end of table.

Table 6b. Cropping-management factors (average annual C factor values) for cropping systems in Western Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
16	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr.leg. meadow seeded after sm.gr. harvest)	1-2	60	.055
17	4 Wheat, rd.r. (sp.late seeded and overseeded with a.lespl.) -M-M-M (a.lesp.)	1-2	(wh.15+)	.055
18	2 Small Grain (early seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)		(wh.15+)	.056
19	3 Corn (silage)-sm.gr. (early seeded) rd.r.-M (gr.leg. seeded in sm.gr.)	2-3	70	.058
20	4 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.060
21	6 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.061
22	3 Corn, (silage)-M-M (early seeded gr. leg.)	1-2	60	.062
23	3 Tobacco-sm.gr. (early seeded and gr.leg. overseeded) rd.r.-M (gr.leg.)	2-3	70	.064
24	6 Tobacco -sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.064
25	3 Corn, (silage)-sm.gr. (early seeded)rd.r.-M (gr.leg. seeded in sm.gr.)	1-2	60	.065
26	5 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.065
27	3 Wheat, rd.r. (late seeded)-overseeded with a.lesp. -M-M (a.lesp.)	1-2	(wh.15+)	.066
28	3 Wheat, rd.l.-M-M (gr.leg. seeded after wheat harvest)	1-2	(wh.15+)	.066
29	6 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.067
30	6 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M-M (gr.leg. meadow seeded after sm. gr. harvest)	1-2	40	.068
31	6 Corn, (silage) with W.C.-Corn (silage)-M-M-M-M (gr.leg.)	2-3	70	.069
32	6 Tobacco-sm.gr. (early seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.072
33	5 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M (gr.leg. early seeded following sm.gr. harvest)	2-3	70	.073
34	3 Corn, (silage)-M-M (early seeded gr.leg.)	1-2	40	.075
35	4 Cotton-sm.gr. (late seeded) rd.r.-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	HF	.076
36	6 Corn, (silage)-sm.gr. (early seeded) rd.r. -M-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.077
37	3 Corn, rd.l. -sm.gr. (late seeded and overseeded in spring with red cl.) -M (red cl.)	1-2	60	.079
38	5 Corn, (silage)-sm.gr. (early seeded) rd.r. -M-M-M (gr.leg. early seeded following sm.gr. harvest)	1-2	60	.079
39	6 Corn, (silage) with W.C.-Corn (silage)-M-M-M-M (gr.leg.)	1-2	60	.079
40	3 Corn, (silage)-sm.gr. (early seeded) rd.r.-M (gr.leg. seeded in sm.gr.)	1-2	40	.080
41	4 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.080

See code to symbols at end of table.

Table 6b. Cropping-management factors (average annual C factor values) for cropping systems in Western Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
42	5 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.080
43	3 Tobacco-sm.gr. (early seeded and gr.leg. overseeded) rd.r.-M (gr.leg.)	1-2	60	.081
44	6 Cotton-sm.gr. (late seeded) rd.r.-M-M-M-M (gr. leg. seeded after sm.gr. harvest)	1-2	MF	,086
45	6 Corn, (silage) with W.C.-Corn (silage)-M-M-M-M (gr.leg.)	1-2	40	.089
46	2 Wheat, (late seeded) overseeded with a.lesp.rd.r. -M (a.lesp.)	1-2	(wh.15+)	.089
47	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	2-3	70	.090
48	4 Corn, (silage)-sm.gr. (eary seeded) overseeded with a.lesp.rd.r.-M-M (a.lesp.)	1-2	60	.092
49	5 Corn, rd.l.-M-M-M-M (sericea)	1-2	40	.092
50	5 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M-M (gr.leg. early seeded following sm.gr. harvest)	1-2	40	.092
51	1 Small Grain, continuous, rd.r. early seeded with a.lesp. (overseeded)		(wh.15+)	.092
52	4 Tobacco-sm.gr. (early seeded) rd.r.-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	70	.094
53	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	1-2	60	.098
54	4 Corn, rd.l.-sm.gr. (late seeded) rd.l.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.099
55	4 Corn, (silage) with W.C.-Corn (silage)-M-M(gr.leg.)	2-3	70	.101
56	3 Corn, rd.l.-sm.gr. (late seeded and overseeded in spring with red cl.) -M (red cl.)	1-2	40	.105
57	4 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp. rd.r.-M-M (a.lesp.)	1-2	45	.106
58	4 Tobacco,-sm.gr. (early seeded) rd.r.-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	60	.106
59	4 Tobacco, with early seeded W.C.-tobacco-M-M (gr,leg.)	3+	75	.106
60	4 Soybeans, rd.l.-sm.gr. rd.r. (late seeded)- M-M (gr.leg. seeded after sm.gr. harvest)	2-3	60	.106
61	8 Cotton, Cotton-sm.gr. rd.r. (late seeded) -M-M-M-M-M (gr.leg. seeded after sm.gr. harvest)	2-3	HF	.111
62	4 Corn, rd.l.-M-M-M (sericea)	1-2	40	.112
63	4 Corn, (silage)-sm.gr. (early seeded) rd.r.-M-M (gr.leg. early seeded after sm.gr. harvest)	1-2	40	.113
64	4 Tobacco, with early seeded W.C.-Tobacco -M-M (gr.leg.)	2-3	70	.113
65	3 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp., rd.r.-M (a.lesp.)	1-2	60	.114
66	4 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp., rd.r.-M-M (a.lesp.)	1-2	60	.114
67	3 Cotton-M-M (gr.leg. spring seeded)	2-3	HF	.114
68	4 Corn, (silage) with W.C.-Corn (Silage)-M-M (gr.leg.)	1-2	60	.115

See code to symbols at end of table.

Table 6b. Cropping-management factors (average annual C factor values) for cropping systems in Western Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
69	4 Soybeans, rd.l.-sm.gr. rd.r. (late seeded)-M-M (gr.leg. seeded after sm.gr. harvest)	1-2	40	.118
70	4 Corn, (silage) with W.C.-Corn (silage)-M-M (gr.leg.)	1-2	40	.130
71	4 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp., rd.r.-M-M (a.lesp.)	1-2	40	.134
72	3 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp., rd.r.-M (a.lesp.)	1-2	45	.135
73	4 Corn, rd.l.-Corn, rd.l. (with late seeded gr.leg.) -M-M (gr.leg.)	1-2	60	.138
74	3 Cotton, -M-M (gr.leg. spring seeded)	1-2	MF	.138
75	3 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp., rd.r.-M (a.lesp.)	1-2	60	.145
76	4 Corn, rd.l.-M-M-M (a.lesp.)	1-2	60	.145
77	3 Soybeans, rd.l. (W.C.)-soybeans, rd.l. (W.C.)-M (button clover for seed) rd.l.	2-3	70	.146
78	3 Soybeans, rd.l.-sm.gr. (late seeded) overseeded with a.lesp., rd.r.-M (a.lesp.)	1-2	60	.148
79	1 Small Grain continuous, early seeded, rd.l.		(wh.15+)	.158
80	4 Corn, rd.l.-M-M-M (a.lesp.)	1-2	45	.160
81	4 Cotton-Corn rd.l.-M-M (gr.leg. late seeded)		HF 60 bu.	.160
82	1 Wheat, continuous, rd.r. Wheat (late seeded) with a.lesp. overseeded		(wh.15+)	.160
83	2 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp., rd.r.	1-2	60	.166
84	4 Corn, rd.l.-Corn rd.l. (with late seeded gr.leg.) -M-M (gr.leg.)	1-2	40	.167
85	4 Cotton-M-M-M (a.lesp.)	1-2	MF	.168
86	3 Soybeans, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r. -M (a.lesp.)	1-2	40	.168
87	3 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. rd.r.-M (a.lesp.)	1-2	40	.172
88	6 Cotton-Cotton-M-M-M-M (sericea)		MF	.178
89	4 Cotton with W.C.-Cotton with W.C.-M-M (button clover for seed) rd.l.		HF	.179
90	3 Soybeans, rd.l.-M-M (a.lesp.)	1-2	60	.184
91	3 Corn, rd.l.-M-M (a.lesp.)	1-2	60	.186
92	4 Cotton-Cotton-M-M (gr.leg. spring seeded)	2-3	HF	.186
93	4 Cotton-Corn rd.l.-M-M (gr.leg. late seeded)		MF 40 bu.	.186
94	2 Corn, (silage)-sm.gr. (early seeded) overseeded with a.lesp., rd.r.	1-2	45	.193
95	3 Soybeans, rd.l.-M-M (a.lesp.)	1-2	45	.204
96	3 Corn, rd.l.-M-M (a.lesp.)	1-2	45	.207
97	2 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. (grazed or hay)	1-2	60	.208
98	3 Cotton-M-M (a.lesp.)	1-2	MF	.217
99	4 Cotton-Cotton-M-M (gr.leg. spring seeded)	1-2	MF	.220
100	3 Soybeans, rd.l. (W.C.)-Soybeans, rd.l. (W.C.)-M (button clover for seed) rd.l.	1-2	40	.226

See code to symbols at end of table.

Table 6b. Cropping-management factors (average annual C factor values) for cropping systems in Western Tennessee (Continued)

Line	CYCLE	MEADOW Tons	CORN Bu.	AV. ANNUAL "C" VALUE
101	1 Sudan Millet, or Hybrid Crosses, continuous, rd.r. with early seeded W.C. rd.r.		MF	.228
102	4 Corn, rd.l.-Corn rd.l.-M-M (a.lesp.)	1-2	60	.231
103	2 Corn, rd.l.-sm.gr. (late seeded) overseeded with a.lesp. (grazed or hay)	1-2	40	.249
104	4 Cotton with W.C.-Cotton with W.C.-Cotton with W.C.-M (button clover for seed) rd.l.		HF	.259
105	1 Wheat, continuous (late seeded) rd.l.		(wh.15+)	.260
106	4 Corn, rd.l.-Corn rd.l.-M-M (a.lesp.)	1-2	45	.271
107	1 Corn, continuous, rd.r. (silage) with early seeded W.C.		75	.297
108	3 Soybeans, rd.l.-Soybeans rd.l.-M (a.lesp.)		60	.299
109	4 Cotton-Cotton-M-M (a.lesp.)	1-2	MF	.307
110	1 Corn, continuous, rd.r. (silage) with early seeded W.C.		60	.314
111	1 Tobacco, continuous, with (early seeded) Sm.gr. leg. W.C. and 8 tons of manure	3+	75	.327
112	1 Corn, continuous, rd.l. with late seeded W.C. (sm.gr.)		75	.334
113	1 Corn, continuous, rd.l. without W.C.		75	.350
114	1 Soybeans, continuous, rd.l. without W.C.	2-3	75	.351
115	3 Soybeans, rd.l.-Soybeans rd.l.-M (a.lesp.)		45	.353
116	1 Soybeans, continuous, rd.l. with W.C. late seeded	2-3	75	.361
117	1 Tobacco, continuous, with early seeded (sm.gr.-) leg. W.C. and 8 tons of manure	2-3	45	.377
118	1 Cotton, continuous, with early seeded W.C.		HF	.380
119	1 Cotton, continuous, with late seeded W.C.		HF	.413
120	1 Cotton, continuous, with early seeded W.C		MF	.422
121	1 Corn, continuous, rd.l. with late seeded W.C. (sm.gr.)		45	.438
122	1 Soybeans, continuous, rd.l. with late seeded W.C.	1-2	45	.462
123	1 Cotton, continuous, with late seeded W.C.		MF	.482
124	1 Corn, continuous, rd.l. without W.C.		45	.487
125	1 Soybeans, continuous, rd.l. without W.C.	1-2	45	.494
126	1 Cotton, continuous, without W.C.		HF	.497
127	1 Cotton, continuous, without W.C.		MF	.556
128	1 Tobacco, continuous, without W.C.	2-3	60	.663
129	1 Corn, continuous, rd.r. (silage) without W.C.		60	.665
130	1 Tobacco, continuous, without W.C.	1-2	40	.706
131	1 Corn, continuous, rd.r. (silage) without W.C.		40	.711
132	1 Continuous fallow (2 or more years)			1.000

Code to symbols used

gr.-leg.—grass legume mixture; M—meadow used for hay or grazed with residue removed unless otherwise indicated; MF—1 bale or less per acre of lint cotton. HF—more than 1 bale per acre of lint cotton; rd.l.—residue left; rd.r.—residue removed; sm.gr.—small grain; W.C.—winter cover; Early seeded—seeding made by 9/15; Late seeded—seeding made by 10/15. cl.—clover; wh—wheat.

Table 7. Conservation practice factor (P) values—Tennessee

Slope percent	Contour[1] farming or terracing[2]	Contour stripcropping[1] (Includes contouring)	Field stripcropping[1]
1.1-2.0	0.60	0.30	0.45
2.1-7.0	0.50	0.25	0.375
7.1-12.0	0.60	0.30	0.45
12.1-18.0	0.80	0.40	0.60
18.1-24.0	0.90	0.45	0.675

[1] Slope length for selection of combined SL value for contouring and stripcropping is the field length.

[2] Slope length for selection of combined SL value for terracing is the recommended horizontal terrace spacing.

Table 8. Spacing of terraces

Average land slope ft. per 100 ft. (%)	Vertical spacing between terraces, ft.	Horizontal spacing between terraces, ft.
2	2.0	100
3	2.5	83
4	3.0	75
5	3.5	70
6	4.0	67
7	4.3	61
8	4.5	56

Table 9. Cropping-management values for selected R, T/K, and slopes

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.133	.089	.067	.059	.221	.148	.111	.098	XXXX[a]	.296	.222	.196	.221	XXXX	XXXX	XXXX
	4	.067	.044	.037	.032	.134	.088	.074	.064	.268	.176	.148	.128	XXXX	.158	XXXX	XXXX
	6	.041	.028	.023	.020	.082	.054	.047	.040	.164	.108	.094	.080	XXXX	XXXX	.084	XXXX
	8	.027	.019	.016	.013	.045	.031	.026	.022	.090	.062	.052	.044	XXXX	XXXX	XXXX	.060
	10	.020	.015	.012	.010	.033	.025	.020	.016	.066	.050	.040	.032	XXXX	XXXX	XXXX	XXXX
	12	.015	.011	.009	.008	.025	.018	.015	.013	.050	.036	.030	.026	XXXX	XXXX	XXXX	XXXX
6	2	.200	.133	.100	.090	.333	.221	.166	.150	XXXX	.442	.332	.300	.333	XXXX	XXXX	XXXX
	4	.100	.067	.057	.051	.200	.134	.114	.102	.400	.268	.228	.204	XXXX	.234	XXXX	XXXX
	6	.057	.042	.034	.030	.114	.084	.068	.060	.228	.168	.136	.120	XXXX	XXXX	.148	XXXX
	8	.040	.028	.024	.020	.066	.046	.040	.033	.132	.092	.080	.066	XXXX	XXXX	XXXX	.090
	10	.030	.021	.017	.014	.050	.035	.028	.023	.100	.070	.056	.046	XXXX	XXXX	XXXX	XXXX
	12	.023	.016	.013	.012	,036	.026	.021	.020	.072	.052	.042	.040	XXXX	XXXX	XXXX	XXXX
8	2	.267	.179	.133	.120	.445	.298	.223	.200	XXXX	.596	.446	.400	.445	XXXX	XXXX	XXXX
	4	.133	.089	.067	.067	.266	.178	.152	.134	.532	.356	.304	.268	XXXX	.312	XXXX	XXXX
	6	.082	.059	.044	.041	.164	.118	.088	.082	.328	.236	.176	.164	XXXX	XXXX	.196	XXXX
	8	.053	.039	.032	.027	.088	.065	.053	.045	.176	.130	.106	.090	XXXX	XXXX	XXXX	.144
	10	.040	.028	.020	.019	.066	.046	.033	.031	.132	.092	.066	.062	XXXX	XXXX	XXXX	XXXX
	12	.029	.021	.017	.015	.048	.035	.028	.025	.096	.070	.056	.050	XXXX	XXXX	XXXX	XXXX

[a] Spaces without cropping-management values indicate that the practice is not needed to keep soil losses within tolerance under these soil, slope, and rainfall conditions.

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length) 100′	200′	300′	400′	Necessary "C" values with practices: Contouring (Slope length) 100′	200′	300′	400′	Contour stripcropping (Slope length) 100′	200′	300′	400′	Contouring with terraces (Spacings) 100′	75′	67′	56′
10	2	.333	.223	.167	.150	.555	.361	.278	.250	XXXX	.722	.556	.500	.555	XXXX	XXXX	XXXX
	4	.167	.111	.095	.084	.334	.222	.190	.168	.668	.444	.380	.336	XXXX	.390	XXXX	XXXX
	6	.095	.075	.056	.051	.190	.150	.112	.102	.380	.300	.224	.204	XXXX	XXXX	.262	XXXX
	8	.067	.048	.039	.033	.112	.080	.065	.055	.224	.160	.130	.110	XXXX	XXXX	XXXX	.150
	10	.050	.035	.028	.025	.083	.058	.046	.041	.166	.116	.092	.082	XXXX	XXXX	XXXX	XXXX
	12	.037	.027	.023	.019	.061	.045	.038	.031	.122	.090	.076	.062	XXXX	XXXX	XXXX	XXXX
12	2	.400	.300	.200	.180	.666	.500	.333	.300	XXXX	XXXX	.666	.600	.666	XXXX	XXXX	XXXX
	4	.200	.133	.115	.100	.400	.266	.230	.200	.800	.532	.460	.400	XXXX	.500	XXXX	XXXX
	6	.115	.089	.067	.061	.230	.178	.134	.122	.460	.356	.268	.244	XXXX	XXXX	.312	XXXX
	8	.080	.057	.047	.040	.133	.095	.078	,066	.266	.190	.156	.132	XXXX	XXXX	XXXX	.192
	10	.059	.043	.034	.029	.098	.072	.056	.046	.196	.144	.112	.092	XXXX	XXXX	XXXX	XXXX
	12	.044	.031	.025	.022	.073	.051	.041	.036	.146	.102	.082	.072	XXXX	XXXX	XXXX	XXXX
14	2	.467	.312	.233	.210	.778	.520	.388	.350	XXXX	XXXX	.776	.700	.778	XXXX	XXXX	XXXX
	4	.233	.156	.133	.117	.466	.312	.266	.234	.932	.624	.532	.468	XXXX	.544	XXXX	XXXX
	6	.133	.104	.077	.072	.266	.208	.154	.144	.532	.416	.308	.288	XXXX	XXXX	.344	XXXX
	8	.093	.067	.055	.047	.155	.112	.092	.078	.310	.224	.184	.156	XXXX	XXXX	XXXX	.221
	10	.070	.049	.039	.034	.117	.082	.065	.057	.234	.164	.130	.114	XXXX	XXXX	XXXX	XXXX
	12	.052	.036	.029	.026	.087	.060	.048	.043	.174	.120	.096	.086	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.533	.356	.267	.240	.888	.593	.445	.400	XXXX	XXXX	.890	.800	.888	XXXX	XXXX	XXXX
	4	.267	.177	.152	.133	.534	.354	.304	.266	XXXX	.708	.608	.532	XXXX	.622	XXXX	XXXX
	6	.152	.119	.089	.083	.304	.238	.178	.166	.608	.476	.356	.332	XXXX	XXXX	.390	XXXX
	8	.107	.076	.063	.053	.178	.123	.105	.088	.356	.246	.210	.176	XXXX	XXXX	XXXX	.253
	10	.080	.056	.045	.040	.133	.093	.075	.066	.266	.186	.150	.132	XXXX	XXXX	XXXX	XXXX
	12	.059	.042	.034	.030	.098	.070	.057	.050	.196	.140	.114	.100	XXXX	XXXX	XXXX	XXXX
18	2	.600	.400	.300	.270	XXXX	.666	.500	.450	XXXX	XXXX	XXXX	.900	XXXX	XXXX	XXXX	XXXX
	4	.300	.200	.172	.150	.600	.400	.344	.300	XXXX	.800	.688	.600	XXXX	.500	XXXX	XXXX
	6	.172	.133	.100	.092	.344	.266	.200	.184	.688	.532	.400	.368	XXXX	XXXX	.540	XXXX
	8	.120	.085	.071	.060	.210	.162	.118	.100	.420	.324	.236	.200	XXXX	XXXX	XXXX	.286
	10	.088	.063	.050	.044	.147	.105	.083	.073	.294	.210	.166	.146	XXXX	XXXX	XXXX	XXXX
	12	.067	.046	.038	.034	.112	.077	.063	.057	.224	.154	.126	.114	XXXX	XXXX	XXXX	XXXX
20	2	.667	.444	.333	.300	XXXX	.740	.555	.500	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	4	.333	.223	.191	.167	.666	.446	.382	.334	XXXX	.892	.764	.668	XXXX	.776	XXXX	XXXX
	6	.191	.148	.111	.103	.382	.296	.222	.206	.764	.592	.444	.412	XXXX	XXXX	.490	XXXX
	8	.133	.095	.079	.067	.222	.158	.132	.112	.444	.316	.264	.224	XXXX	XXXX	XXXX	.316
	10	.099	.071	.056	.049	.165	.118	.093	.082	.330	.236	.186	.164	XXXX	XXXX	XXXX	XXXX
	12	.075	.051	.042	.032	.125	.085	.070	.053	.250	.170	.140	.106	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.118	.079	.059	.053	.197	.132	.098	.088	.394	.264	.196	.176	.197	XXXX	XXXX	XXXX
	4	.059	.039	.034	.029	.118	.078	.068	.058	.236	.156	.136	.116	XXXX	.138	XXXX	XXXX
	6	.034	.026	.020	.018	.068	.052	.040	.036	.136	.104	.080	.072	XXXX	XXXX	.086	XXXX
	8	.024	.016	.014	.012	.040	.027	.023	.020	.080	.054	.046	.040	XXXX	XXXX	XXXX	.057
	10	.017	.013	.010	.008	.028	.022	.017	.013	.056	.044	.034	.026	XXXX	XXXX	XXXX	XXXX
	12	.013	.008	.007	.006	.022	.013	.012	.010	.044	.026	.024	.020	XXXX	XXXX	XXXX	XXXX
6	2	.176	.118	.088	.079	.293	.191	.147	.132	.586	.394	.294	.264	.293	XXXX	XXXX	XXXX
	4	.088	.059	.051	.045	.176	.118	.102	.090	.352	.236	.204	.180	XXXX	.206	XXXX	XXXX
	6	.051	.039	.029	.027	.102	.078	.058	.054	.204	.156	.116	.108	XXXX	XXXX	.130	XXXX
	8	.035	.025	.021	.018	.058	.042	.035	.030	.116	.084	.070	.060	XXXX	XXXX	XXXX	.085
	10	.026	.019	.015	.013	.043	.031	.025	.021	.086	.062	.050	.042	XXXX	XXXX	XXXX	XXXX
	12	.020	.013	.012	.011	.033	.022	.020	.018	.066	.044	.040	.036	XXXX	XXXX	XXXX	XXXX
8	2	.235	.158	.118	.106	.391	.263	.197	.177	.782	.526	.394	.354	.392	XXXX	XXXX	XXXX
	4	.118	.079	.067	.059	.236	.158	.134	.118	.472	.316	.268	.236	XXXX	.276	XXXX	XXXX
	6	.067	.052	.039	.036	.134	.104	.078	.072	.268	.208	.156	.144	XXXX	XXXX	.172	XXXX
	8	.047	.034	.028	.024	.078	.056	.047	.040	.156	.112	.094	.080	XXXX	XXXX	XXXX	.112
	10	.035	.025	.020	.017	.058	.041	.033	.028	.116	.082	.066	.056	XXXX	XXXX	XXXX	XXXX
	12	.026	.018	.014	.013	.043	.030	.023	.022	.086	.060	.046	.044	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.294	.196	.147	.132	.490	.327	.245	.220	.980	.654	.490	.440	.490	XXXX	XXXX	XXXX
	4	.147	.098	.083	.074	.294	.196	.166	.148	.588	.392	.332	.296	XXXX	.342	XXXX	XXXX
	6	.083	.066	.049	.045	.166	.132	.098	.090	.332	.264	.196	.180	XXXX	XXXX	.216	XXXX
	8	.059	.042	.034	.029	.098	.070	.057	.048	.196	.140	.114	.096	XXXX	XXXX	XXXX	.138
	10	.043	.031	.025	.022	.072	.052	.042	.037	.144	.104	.084	.074	XXXX	XXXX	XXXX	XXXX
	12	.033	.023	.018	.016	.055	.038	.030	.027	.110	.076	.060	.054	XXXX	XXXX	XXXX	XXXX
12	2	.353	.235	.176	.158	.588	.392	.293	.263	XXXX	.784	.586	.526	.588	XXXX	XXXX	XXXX
	4	.176	.118	.101	.088	.352	.236	.202	.176	.704	.472	.404	.352	XXXX	.410	XXXX	XXXX
	6	.101	.079	.059	.054	.202	.158	.118	.108	.404	.316	.236	.216	XXXX	XXXX	.258	XXXX
	8	.071	.051	.041	.035	.118	.085	.068	.058	.236	.170	.136	.116	XXXX	XXXX	XXXX	.168
	10	.052	.038	.029	.026	.086	.063	.048	.043	.172	.126	.096	.086	XXXX	XXXX	XXXX	XXXX
	12	.039	.027	.022	.020	.065	.045	.037	.033	.130	.090	.074	.066	XXXX	XXXX	XXXX	XXXX
14	2	.412	.275	.206	.185	.687	.458	.343	.308	XXXX	.916	.686	.616	.687	XXXX	XXXX	XXXX
	4	.206	.138	.118	.103	.412	.276	.236	.206	.824	.552	.472	.412	XXXX	.480	XXXX	XXXX
	6	.118	.092	.068	.064	.236	.184	.136	.128	.472	.368	.272	.256	XXXX	XXXX	.302	XXXX
	8	.082	.059	.048	.041	.137	.098	.080	.068	.274	.196	.160	.136	XXXX	XXXX	XXXX	.197
	10	.061	.044	.035	.030	.102	.073	.058	.050	.204	.146	.116	.100	XXXX	XXXX	XXXX	XXXX
	12	.046	.029	.025	.023	.077	.048	.042	.038	.154	.096	.084	.096	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.470	.314	.235	.211	.783	.523	.392	.352	XXXX	XXXX	.784	.704	.783	XXXX	XXXX	XXXX
	4	.235	.156	.134	.118	.470	.312	.268	.236	.940	.624	.536	.472	XXXX	.538	XXXX	XXXX
	6	.134	.105	.079	.073	.268	.210	.158	.146	.536	.420	.316	.292	XXXX	XXXX	.344	XXXX
	8	.094	.067	.055	.047	.157	.112	.092	.078	.314	.224	.184	.156	XXXX	XXXX	XXXX	.223
	10	.070	.049	.036	.035	.117	.082	.060	.058	.234	.164	.120	.116	XXXX	XXXX	XXXX	XXXX
	12	.052	.037	.030	.026	.087	.062	.050	.043	.174	.124	.100	.086	XXXX	XXXX	XXXX	XXXX
18	2	.529	.353	.265	.238	.882	.588	.442	.397	XXXX	XXXX	.884	.794	.882	XXXX	XXXX	XXXX
	4	.265	.176	.152	.133	.530	.352	.304	.266	XXXX	.704	.608	.532	XXXX	.618	XXXX	XXXX
	6	.152	.118	.088	.081	.304	.236	.176	.162	.608	.472	.352	.324	XXXX	XXXX	.388	XXXX
	8	.106	.075	.062	.053	.177	.125	.103	.088	.354	.250	.206	.176	XXXX	XXXX	XXXX	.253
	10	.078	.055	.040	.038	.130	.092	.067	.063	.260	.184	.134	.126	XXXX	XXXX	XXXX	XXXX
	12	.059	.041	.033	.030	.098	.068	.055	.050	.196	.136	.110	.100	XXXX	XXXX	XXXX	XXXX
20	2	.588	.392	.294	.225	.988	.653	.490	.375	XXXX	XXXX	.980	.750	.980	XXXX	XXXX	XXXX
	4	.294	.196	.168	.147	.588	.392	.336	.294	XXXX	.784	.672	.588	XXXX	.686	XXXX	XXXX
	6	.168	.131	.098	.091	.336	.262	.196	.182	.672	.524	.392	.364	XXXX	XXXX	.430	XXXX
	8	.118	.083	.069	.059	.197	.138	.115	.098	.394	.276	.230	.196	XXXX	XXXX	XXXX	.280
	10	.087	.062	.049	.043	.145	.103	.082	.072	.290	.206	.164	.144	XXXX	XXXX	XXXX	XXXX
	12	.066	.045	.037	.033	.110	.075	.062	.055	.220	.150	.124	.110	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Necessary "C" values with practices: Contour stripcropping (Slope length)				Necessary "C" values with practices: Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.105	.071	.053	.047	.175	.118	.088	.078	.350	.236	.176	.156	.175	XXXX	XXXX	XXXX
	4	.053	.035	.031	.026	.106	.070	.062	.052	.212	.140	.124	.104	XXXX	.124	XXXX	XXXX
	6	.031	.023	.018	.016	.062	.046	.036	.032	.124	.092	.072	.064	XXXX	XXXX	.076	XXXX
	8	.021	.015	.013	.011	.035	.025	.022	.018	.070	.050	.044	.036	XXXX	XXXX	XXXX	.052
	10	.014	.012	.009	.008	.023	.020	.015	.013	.046	.040	.030	.026	XXXX	XXXX	XXXX	XXXX
	12	.012	.007	.006	.005	.020	.012	.010	.008	.040	.024	.020	.016	XXXX	XXXX	XXXX	XXXX
6	2	.158	.105	.079	.071	.263	.175	.132	.118	.526	.350	.264	.236	.263	XXXX	XXXX	XXXX
	4	.079	.053	.045	.040	.158	.106	.090	.080	.316	.212	.180	.160	XXXX	.184	XXXX	XXXX
	6	.045	.035	.026	.024	.090	.070	.052	.048	.180	.140	.104	.096	XXXX	XXXX	.116	XXXX
	8	.032	.022	.019	.016	.053	.044	.032	.027	.106	.088	.064	.054	XXXX	XXXX	XXXX	.075
	10	.023	.017	.014	.012	.038	.028	.023	.020	.076	.056	.046	.040	XXXX	XXXX	XXXX	XXXX
	12	.018	.011	.009	.008	.030	.018	.015	.013	.060	.036	.030	.026	XXXX	XXXX	XXXX	XXXX
8	2	.210	.141	.105	.094	.350	.235	.175	.157	.700	.470	.350	.314	.350	XXXX	XXXX	XXXX
	4	.105	.071	.060	.053	.210	.142	.120	.106	.420	.284	.240	.212	XXXX	.246	XXXX	XXXX
	6	.060	.046	.035	.033	.120	.092	.070	.066	.240	.184	.140	.132	XXXX	XXXX	.154	XXXX
	8	.042	.031	.025	.021	.070	.052	.042	.035	.140	.104	.084	.070	XXXX	XXXX	XXXX	.100
	10	.032	.022	.018	.015	.053	.037	.030	.025	.106	.074	.060	.050	XXXX	XXXX	XXXX	XXXX
	12	.023	.016	.012	.011	.038	.027	.020	.018	.076	.054	.040	.036	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.263	.176	.132	.129	.438	.293	.220	.215	.876	.586	.440	.430	.438	XXXX	XXXX	XXXX
	4	.132	.087	.075	.066	.264	.174	.150	.132	.528	.348	.300	.264	XXXX	.308	XXXX	XXXX
	6	.075	.059	.044	.040	.150	.118	.088	.080	.300	.236	.176	.160	XXXX	XXXX	.192	XXXX
	8	.053	.038	.031	.026	.088	.063	.052	.043	.176	.126	.104	.086	XXXX	XXXX	XXXX	.125
	10	.039	.027	.020	.019	.065	.045	.033	.032	.130	.090	.066	.064	XXXX	XXXX	XXXX	XXXX
	12	.029	.020	.017	.014	.048	.033	.028	.023	.096	.066	.056	.046	XXXX	XXXX	XXXX	XXXX
12	2	.316	.211	.158	.142	.527	.352	.263	.237	XXXX	.704	.526	.474	.477	XXXX	XXXX	XXXX
	4	.158	.105	.091	.079	.316	.210	.182	.158	.632	.420	.364	.316	XXXX	.332	XXXX	XXXX
	6	.091	.071	.053	.048	.182	.142	.106	.096	.364	.284	.212	.192	XXXX	XXXX	.208	XXXX
	8	.063	.045	.037	.032	.105	.075	.062	.053	.210	.150	.124	.106	XXXX	XXXX	XXXX	.137
	10	.046	.034	.024	.023	.077	.057	.040	.038	.154	.114	.080	.076	XXXX	XXXX	XXXX	XXXX
	12	.035	.024	.020	.015	.058	.040	.033	.025	.116	.080	.066	.050	XXXX	XXXX	XXXX	XXXX
14	2	.369	.246	.184	.165	.615	.410	.307	.275	XXXX	.820	.614	.550	.555	XXXX	XXXX	XXXX
	4	.184	.123	.105	.093	.368	.246	.210	.186	.736	.492	.420	.372	XXXX	.390	XXXX	XXXX
	6	.105	.082	.061	.057	.210	.164	.122	.114	.420	.328	.244	.228	XXXX	XXXX	.244	XXXX
	8	.074	.053	.043	.037	.123	.088	.072	.062	.246	.176	.144	.124	XXXX	XXXX	XXXX	.158
	10	.055	.039	.030	.026	.092	.065	.050	.043	.184	.130	.100	.086	XXXX	XXXX	XXXX	XXXX
	12	.041	.028	.023	.020	.068	.047	.038	.033	.136	.094	.076	.066	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.421	.218	.211	.189	.702	.363	.352	.315	XXXX	.726	.704	.630	.635	XXXX	XXXX	XXXX
	4	.211	.140	.120	.105	.422	.280	.240	.210	.844	.560	.480	.420	XXXX	.444	XXXX	XXXX
	6	.120	.094	.071	.065	.240	.188	.142	.130	.480	.376	.284	.260	XXXX	XXXX	.278	XXXX
	8	.084	.066	.049	.042	.140	.110	.082	.070	.280	.220	.164	.140	XXXX	XXXX	XXXX	.182
	10	.066	.044	.035	.031	.110	.073	.058	.052	.220	.146	.116	.104	XXXX	XXXX	XXXX	XXXX
	12	.046	.033	.026	.023	.077	.055	.043	.038	.154	.110	.086	.076	XXXX	XXXX	XXXX	XXXX
18	2	.474	.316	.237	.213	.790	.527	.395	.355	XXXX	XXXX	.790	.710	.715	XXXX	XXXX	XXXX
	4	.237	.158	.136	.119	.474	.316	.272	.238	.948	.632	.544	.476	XXXX	.500	XXXX	XXXX
	6	.136	.105	.079	.073	.272	.210	.158	.146	.544	.420	.316	.292	XXXX	XXXX	.312	XXXX
	8	.095	.067	.056	.047	.158	.112	.093	.078	.316	.224	.186	.156	XXXX	XXXX	XXXX	.205
	10	.070	.049	.040	.035	.117	.082	.067	.058	.234	.164	.134	.116	XXXX	XXXX	XXXX	XXXX
	12	.053	.037	.030	.026	.088	.062	.050	.043	.176	.124	.100	.086	XXXX	XXXX	XXXX	XXXX
20	2	.527	.350	.263	.237	.878	.583	.438	.395	XXXX	XXXX	.876	.790	.793	XXXX	XXXX	XXXX
	4	.263	.176	.151	.132	.526	.352	.302	.264	XXXX	.704	.604	.528	XXXX	.544	XXXX	XXXX
	6	.151	.117	.087	.081	.302	.234	.174	.162	.604	.468	.348	.324	XXXX	XXXX	.348	XXXX
	8	.105	.074	.062	.053	.175	.123	.103	.088	.350	.246	.206	.176	XXXX	XXXX	XXXX	.227
	10	.077	.056	.048	.042	.128	.093	.080	.070	.256	.186	.160	.140	XXXX	XXXX	XXXX	XXXX
	12	.059	.041	.033	.030	.098	.068	.055	.050	.196	.136	.110	.100	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: (Slope length) Contouring				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.095	.064	.048	.043	.158	.107	.080	.072	.316	.214	.160	.144	.158	XXXX	XXXX	XXXX
	4	.048	.031	.028	.024	.096	.062	.056	.048	.192	.124	.112	.096	XXXX	.112	XXXX	XXXX
	6	.028	.021	.016	.014	.056	.042	.032	.028	.112	.084	.064	.056	XXXX	XXXX	.066	XXXX
	8	.019	.013	.011	.010	.032	.022	.018	.017	.064	.044	036	.034	XXXX	XXXX	XXXX	.047
	10	.013	.010	.008	.007	.022	.017	.013	.012	.044	.034	.026	.024	XXXX	XXXX	XXXX	XXXX
	12	.010	.008	.007	.006	.017	.013	.012	.010	.034	.026	.024	020	XXXX	XXXX	XXXX	XXXX
6	2	.143	.095	.071	.064	.238	.158	.118	.107	.476	.316	.236	214	.238	XXXX	XXXX	XXXX
	4	.071	.048	.041	.036	.142	.092	.082	.072	.284	.184	.164	.144	XXXX	.166	XXXX	XXXX
	6	.041	.031	.024	.022	.082	.062	.048	.044	.164	.124	.096	.088	XXXX	XXXX	.104	XXXX
	8	.029	.020	.017	.014	048	.033	.028	.023	.096	.066	.056	.046	XXXX	XXXX	XXXX	.068
	10	.021	.015	.012	.010	.035	.025	.020	.017	.070	.050	.040	.034	XXXX	XXXX	XXXX	XXXX
	12	.016	.011	.010	.009	.027	.018	.017	.015	.054	.036	.034	.030	XXXX	XXXX	XXXX	XXXX
8	2	.190	.128	.095	.085	.317	.213	.158	.142	.634	.426	.316	.284	.316	XXXX	XXXX	XXXX
	4	.095	.064	.054	.048	.190	.128	.108	.096	.380	.256	.216	.192	XXXX	.222	XXXX	XXXX
	6	.054	.042	.031	.030	.108	.084	.062	.060	.216	.168	.124	.120	XXXX	XXXX	.140	XXXX
	8	.038	.028	.023	.019	.063	.047	.038	.032	.126	.094	.076	.064	XXXX	XXXX	XXXX	.090
	10	.029	020	.015	.013	.048	.033	.025	.022	096	.066	.050	.044	XXXX	XXXX	XXXX	XXXX
	12	.021	.015	.011	.010	.035	.025	.018	.017	.070	.050	.036	.034	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.238	.159	.119	.107	.397	.265	.198	.178	.794	.530	.396	.356	.397	XXXX	XXXX	XXXX
	4	.119	.079	.068	.060	.238	.158	.136	.120	.476	.316	.272	.240	XXXX	.278	XXXX	XXXX
	6	.068	.053	.040	.036	.136	.106	.080	.072	.272	.212	.160	.144	XXXX	XXXX	.174	XXXX
	8	.048	.034	.028	.024	.080	.057	.047	.040	.160	.114	.094	.080	XXXX	XXXX	XXXX	.113
	10	.035	.025	.020	.017	.058	.042	.033	.028	.116	.050	.040	.034	XXXX	XXXX	XXXX	XXXX
	12	.027	.018	.015	.013	.045	.030	.025	.022	.090	.060	.050	.044	XXXX	XXXX	XXXX	XXXX
12	2	.286	.190	.143	.133	.477	.317	.238	.222	.994	.634	.476	.444	.477	XXXX	XXXX	XXXX
	4	.143	.095	.082	.071	.286	.190	.164	.142	.572	.380	.328	.284	XXXX	.332	XXXX	XXXX
	6	.082	.064	.048	.044	.164	.128	.096	.088	.328	.256	.192	.176	XXXX	XXXX	.208	XXXX
	8	.057	.041	.033	.029	.095	.068	.055	.048	.190	.136	.110	.096	XXXX	XXXX	XXXX	.137
	10	.042	.030	.024	.021	.070	.050	.040	.035	.140	.100	.080	.070	XXXX	XXXX	XXXX	XXXX
	12	.031	.022	.018	.016	.052	.037	.030	.027	.104	.074	.060	.054	XXXX	XXXX	XXXX	XXXX
14	2	.333	.223	.167	.150	.555	.372	.278	.250	XXXX	.744	.556	.500	.555	XXXX	XXXX	XXXX
	4	.167	.111	.095	.084	.334	.222	.190	.168	.668	.444	.380	.336	XXXX	.390	XXXX	XXXX
	6	.095	.074	.055	.051	.190	.148	.110	.102	.380	.296	.220	.204	XXXX	XXXX	.244	XXXX
	8	.067	.048	.039	.033	.112	.080	.065	.055	.224	.160	.130	.110	XXXX	XXXX	XXXX	.158
	10	.049	.035	.026	.024	.082	.058	.043	.040	.164	.116	.086	.080	XXXX	XXXX	XXXX	XXXX
	12	.037	.026	.021	.019	.062	.043	.035	.032	.124	.086	.070	.064	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-manage...

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
						Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.381	.254	.190	.171	.635	.423	.317	.285	XXXX	.846	.634	.570	.635	XXXXX	XXXX	XXXX
	4	.190	.127	.109	.095	.380	.254	.218	.190	.760	.508	.436	.380	XXXX	.444	XXXX	XXXX
	6	.109	.085	.064	.059	.218	.170	.128	.118	.436	.340	.256	.236	XXXX	XXXX	.278	XXXX
	8	.076	.054	.045	.038	.127	.090	.075	.063	.254	.180	.150	.126	XXXX	XXXX	XXXX	.182
	10	.057	.040	.031	.028	.095	.067	.052	.047	.190	.134	.104	.094	XXXX	XXXX	XXXX	XXXX
	12	.042	.029	.025	.022	.070	.048	.042	.037	.140	.096	.084	.074	XXXX	XXXX	XXXX	XXXX
18	2	.429	.256	.214	.192	.715	.477	.357	.320	XXXX	.954	.714	.640	.715	XXXX	XXXX	XXXX
	4	.214	.142	.123	.108	.428	.284	.246	.216	.856	.568	.492	.432	XXXX	.500	XXXX	XXXX
	6	.123	.095	.071	.066	.246	.190	.142	.132	.492	.380	.284	.264	XXXX	XXXX	.312	XXXX
	8	.086	.061	.050	.043	.143	.102	.083	.072	.286	.204	.166	.144	XXXX	XXXX	XXXX	.205
	10	.063	.045	.033	.031	.105	.075	.055	.052	.210	.150	.110	.104	XXXX	XXXX	XXXX	XXXX
	12	.048	.033	.028	.025	.080	.055	.047	.042	.160	.110	.094	.084	XXXX	XXXX	XXXX	XXXX
20	2	.476	.317	.238	.214	.793	.528	.397	.357	XXXX	XXXX	.794	.714	.793	XXXX	XXXX	XXXX
	4	.238	.159	.136	.119	.476	.318	.272	.238	.952	.636	.544	.476	XXXX	.544	XXXX	XXXX
	6	.136	.106	.079	.073	.272	.212	.158	.146	.544	.424	.316	.292	XXXX	XXXX	.348	XXXX
	8	.095	.068	.056	.048	.158	.113	.093	.080	.316	.226	.186	.160	XXXX	XXXX	XXXX	.227
	10	.070	.050	.040	.034	.117	.083	.067	.057	.234	.166	.134	.114	XXXX	XXXX	XXXX	XXXX
	12	.053	.037	.030	.028	.088	.062	.050	.047	.176	.124	.100	.094	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.087	.058	.043	.039	.145	.097	.072	.065	.290	.194	.144	.130	.145	XXXX	XXXX	XXXX
	4	.043	.029	.025	.022	.086	.058	.050	.044	.172	.116	.100	.088	XXXX	.100	XXXX	XXXX
	6	.025	.019	.015	.013	.050	.038	.030	.026	.100	.076	.060	.052	XXXX	XXXX	.064	XXXX
	8	.017	.012	.010	.009	.028	.020	.017	.015	.056	.040	.034	.030	XXXX	XXXX	XXXX	.042
	10	.012	.010	.007	.006	.020	.017	.012	.010	.040	.034	.024	.020	XXXX	XXXX	XXXX	XXXX
	12	.010	.007	.006	.005	.017	.012	.010	.008	.034	.024	.020	.016	XXXX	XXXX	XXXX	XXXX
6	2	.130	.087	.065	.058	.217	.145	.108	.097	.434	.290	.216	.194	.217	XXXX	XXXX	XXXX
	4	.065	.043	.037	.033	.130	.086	.074	.066	.260	.172	.148	.132	XXXX	.152	XXXX	XXXX
	6	.037	.029	.022	.020	.074	.058	.044	.040	.148	.116	.088	.080	XXXX	XXXX	.094	XXXX
	8	.026	.018	.016	.013	.043	.030	.027	.022	.086	.060	.054	.044	XXXX	XXXX	XXXX	.062
	10	.019	.014	.011	.009	.032	.023	.018	.015	.064	.046	.036	.030	XXXX	XXXX	XXXX	XXXX
	12	.015	.010	.009	.008	.025	.017	.015	.013	.050	.034	.030	.026	XXXX	XXXX	XXXX	XXXX
8	2	.174	.117	.087	.078	.290	.195	.145	.130	.580	.390	.290	.260	.290	XXXX	XXXX	XXXX
	4	.087	.058	.050	.043	.174	.116	.100	.086	.348	.232	.200	.172	XXXX	.204	XXXX	XXXX
	6	.050	.038	.029	.027	.100	.076	.058	.054	.200	.152	.116	.108	XXXX	XXXX	.128	XXXX
	8	.035	.025	.021	.017	.058	.042	.035	.028	.116	.084	.070	.056	XXXX	XXXX	XXXX	.083
	10	.026	.018	.015	.012	.043	.030	.025	.020	.086	.060	.050	.040	XXXX	XXXX	XXXX	XXXX
	12	.019	.013	.011	.010	.032	.022	.018	.017	.064	.044	.036	.034	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
						Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.217	.145	.109	.098	.362	.242	.182	.163	.724	.484	.364	.326	.362	XXXX	XXXX	XXXX
	4	.109	.072	.062	.055	.218	.144	.124	.110	.436	.288	.248	.220	XXXX	.254	XXXX	XXXX
	6	.062	.049	.037	.033	.124	.098	.074	.066	.248	.196	.148	.132	XXXX	XXXX	.158	XXXX
	8	.043	.031	.025	.022	.072	.052	.042	.037	.144	.104	.084	.074	XXXX	XXXX	XXXX	.103
	10	.032	.023	.018	.016	.053	.038	.030	.027	.106	.076	.060	.054	XXXX	XXXX	XXXX	XXXX
	12	.024	.017	.014	.012	.040	.028	.023	.020	.080	.056	.046	.040	XXXX	XXXX	XXXX	XXXX
12	2	.261	.174	.130	.117	.435	.290	.217	.195	.890	.580	.434	.390	.435	XXXX	XXXX	XXXX
	4	.130	.087	.075	.065	.260	.174	.150	.130	.520	.348	.300	.260	XXXX	.310	XXXX	XXXX
	6	.075	.058	.043	.040	.150	.116	.086	.080	.300	.232	.172	.160	XXXX	XXXX	.190	XXXX
	8	.052	.037	.030	.026	.087	.062	.050	.043	.174	.124	.100	.086	XXXX	XXXX	XXXX	.125
	10	.038	.028	.022	.019	.063	.047	.037	.032	.126	.094	.074	.064	XXXX	XXXX	XXXX	XXXX
	12	.029	.020	.016	.014	.048	.033	.027	.023	.096	.066	.054	.046	XXXX	XXXX	XXXX	XXXX
14	2	.304	.203	.152	.137	.507	.338	.253	.228	XXXX	.676	.506	.456	.507	XXXX	XXXX	XXXX
	4	.152	.102	.087	.077	.304	.204	.174	.154	.608	.408	.348	.308	XXXX	.354	XXXX	XXXX
	6	.087	.068	.050	.047	.174	.136	.100	.094	.348	.272	.200	.188	XXXX	XXXX	.224	XXXX
	8	.061	.043	.036	030	.102	.072	.060	.050	.204	.144	.120	.100	XXXX	XXXX	XXXX	.145
	10	.045	.032	.025	.022	.075	.053	.042	.037	.150	.106	.084	.074	XXXX	XXXX	XXXX	XXXX
	12	.034	.023	.019	.017	.057	.038	.032	.028	.114	.076	.064	.056	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.348	.232	.174	.156	.580	.387	.290	.260	XXXX	.774	.580	.520	.580	XXXX	XXXX	XXXX
	4	.174	.116	.099	.087	.348	.232	.198	.174	.696	.464	.396	.348	XXXX	.406	XXXX	XXXX
	6	.099	.077	.058	.054	.198	.154	.116	.108	.396	.308	.232	.216	XXXX	XXXX	.254	XXXX
	8	.070	.050	.041	.035	.117	.083	.068	.058	.234	.166	.136	.116	XXXX	XXXX	XXXX	.165
	10	.052	.037	.029	.025	.087	.062	.048	.042	.174	.124	.096	.084	XXXX	XXXX	XXXX	XXXX
	12	.038	.027	.022	.019	.063	.045	.037	.032	.126	.090	.074	.064	XXXX	XXXX	XXXX	XXXX
18	2	.391	.260	.196	.176	.652	.433	.327	.293	XXXX	.866	.654	.586	.652	XXXX	XXXX	XXXX
	4	.196	.130	.112	.098	.392	.260	.224	.196	.784	.520	.448	.392	XXXX	.456	XXXX	XXXX
	6	.112	.087	.065	.060	.224	.174	.130	.120	.448	.318	.260	.240	XXXX	XXXX	.286	XXXX
	8	.078	.056	.046	.039	.130	.093	.077	.065	.260	.186	.154	.130	XXXX	XXXX	XXXX	.187
	10	.058	.041	.029	.028	.097	.068	.048	.047	.194	.136	.096	.094	XXXX	XXXX	XXXX	XXXX
	12	.043	.030	.025	.022	.072	.050	.042	.037	.144	.100	.084	.074	XXXX	XXXX	XXXX	XXXX
20	2	.435	.290	.217	.195	.725	.483	.362	.325	XXXX	.966	.724	.650	.725	XXXX	XXXX	XXXX
	4	.217	.145	.124	.109	.434	.290	.248	.218	.868	.580	.496	.436	XXXX	.506	XXXX	XXXX
	6	.124	.097	.072	.067	.248	.194	.144	.134	.496	.388	.144	.134	XXXX	XXXX	.318	XXXX
	8	.087	.062	.051	.043	.145	.103	.085	.072	.290	.206	.170	.144	XXXX	XXXX	XXXX	.207
	10	.065	.046	.036	.032	.108	.077	.060	.053	.216	.154	.120	.106	XXXX	XXXX	XXXX	XXXX
	12	.049	.034	.028	.025	.082	.057	.047	.042	.164	.114	.094	.084	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

R Factor 250

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
		100'	200'	300'	400'	Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
						100'	200'	300'	400'	100'	200'	300'	400'	100'	75'	67'	56'
4	2	.080	.054	.040	.036	.133	.090	.067	.060	.286	.180	.134	.120	.133	XXXX	XXXX	XXXX
	4	.040	.026	.023	.020	.080	.052	.046	.040	.160	.104	.092	.080	XXXX	.086	XXXX	XXXX
	6	.023	.018	.014	.012	.046	.036	.028	.024	.092	.072	.056	.048	XXXX	XXXX	.058	XXXX
	8	.016	.011	.010	.008	.027	.018	.017	.013	.054	.036	.034	.026	XXXX	XXXX	XXXX	.038
	10	.011	.009	.006	.005	.018	.015	.010	.010	.036	.030	.020	.020	XXXX	XXXX	XXXX	XXXX
	12	.009	.006	.005	.004	.015	.010	.010	.008	.030	.020	.020	.016	XXXX	XXXX	XXXX	XXXX
6	2	.120	.080	.060	.054	.200	.133	.100	.090	.400	.266	.200	.180	.200	XXXX	XXXX	XXXX
	4	.060	.040	.034	.030	.120	.080	.068	.060	.200	.133	.113	.060	XXXX	.140	XXXX	XXXX
	6	.034	.026	.020	.018	.068	.052	.040	.036	.113	.104	.080	.072	XXXX	XXXX	.088	XXXX
	8	.024	.017	.014	.012	.040	.028	.023	.020	.080	.056	.046	.040	XXXX	XXXX	XXXX	.057
	10	.017	.013	.010	.009	.028	.022	.017	.015	.056	.044	.034	.030	XXXX	XXXX	XXXX	XXXX
	12	.014	.010	.008	.007	.023	.017	.013	.012	.046	.034	.026	.021	XXXX	XXXX	XXXX	XXXX
8	2	.160	.107	.080	.067	.267	.178	.133	.112	.534	.356	.266	.224	.267	XXXXX	XXXX	XXXX
	4	.080	.054	.046	.040	.133	.090	.077	.067	.266	.180	.154	.134	XXXX	.186	XXXX	XXXX
	6	.046	.035	.026	.025	.092	.070	.052	.050	.184	.140	.104	.100	XXXX	XXXXX	.108	XXXX
	8	.032	.023	.019	.016	.064	.046	.038	.032	.128	.092	.076	.064	XXXX	XXXXX	XXXX	.077
	10	.024	.017	.013	.011	.040	.028	.022	.018	.080	.056	.044	.036	XXXX	XXXXX	XXXX	XXXX
	12	.018	.013	.010	.009	.030	.022	.017	.015	.060	.044	.034	.030	XXXX	XXXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
						Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.200	.134	.100	.090	.333	.223	.167	.150	.666	.446	.334	.300	.333	XXXX	XXXX	XXXX
	4	.100	.066	.057	.050	.200	.132	.114	.100	.400	.264	.228	.200	XXXX	.234	XXXX	XXXX
	6	.057	.045	.034	.030	.114	.090	.068	.060	.228	.180	.136	.120	XXXX	XXXX	.146	XXXX
	8	.040	.029	.023	.020	.067	.048	.038	.033	.134	.096	.076	.066	XXXX	XXXX	XXXX	.095
	10	.029	.021	.017	.015	.048	.035	.028	.025	.096	.070	.056	.050	XXXX	XXXX	XXXX	XXXX
	12	.022	.016	.013	.011	.037	.027	.022	.018	.074	.054	.044	.036	XXXX	XXXX	XXXX	XXXX
12	2	.240	.160	.120	.108	.400	.267	.200	.180	.800	.534	.400	.360	.400	XXXX	XXXX	XXXX
	4	.120	.080	.069	.060	.240	.190	.138	.120	.480	.380	.276	.240	XXXX	.280	XXXX	XXXX
	6	.069	.054	.040	.037	.138	.108	.080	.074	.276	.216	.160	.148	XXXX	XXXX	.176	XXXX
	8	.048	.034	.028	.024	.080	.057	.047	.040	.160	.114	.094	.080	XXXX	XXXX	XXXX	.115
	10	.035	.026	.020	.017	.058	.043	.033	.028	.116	.086	.066	.056	XXXX	XXXX	XXXX	XXXX
	12	.026	.019	.016	.014	.043	.032	.027	.023	.086	.064	.054	.046	XXXX	XXXX	XXXX	XXXX
14	2	.280	.187	.140	.126	.467	.312	.233	.210	.934	.624	.466	.373	.467	XXXX	XXXX	XXXX
	4	.140	.094	.080	.070	.280	.188	.160	.140	.560	.376	.320	.280	XXXX	.326	XXXX	XXXX
	6	.080	.062	.046	.043	.160	.124	.092	.086	.320	.248	.184	.172	XXXX	XXXX	.206	XXXX
	8	.056	.040	.033	.028	.093	.067	.055	.047	.186	.134	.110	.094	XXXX	XXXX	XXXX	.133
	10	.041	.030	.023	.020	.068	.050	.038	.033	.136	.100	.076	.066	XXXX	XXXX	XXXX	XXXX
	12	.031	.020	.018	.016	.052	.033	.030	.027	.104	.066	.060	.054	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
						Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.320	.214	.160	.144	.533	.357	.267	.240	XXXX	.714	.534	.480	.533	XXXX	XXXX	XXXX
	4	.160	.106	.091	.080	.320	.212	.182	.160	.640	.424	.364	.320	XXXX	.374	XXXX	XXXX
	6	.091	.071	.054	.050	.182	.142	.108	.100	.364	.284	.216	.200	XXXX	XXXX	.234	XXXX
	8	.064	.046	.038	.032	.107	.077	.063	.053	.214	.154	.126	.106	XXXX	XXXX	XXXX	.151
	10	.048	.034	.027	.023	.080	.057	.045	.038	.160	.114	.090	.076	XXXX	XXXX	XXXX	XXXX
	12	.035	.026	.022	.018	.058	.043	.037	.030	.116	.086	.074	.060	XXXX	XXXX	XXXX	XXXX
18	2	.360	.240	.180	.162	.600	.400	.300	.270	XXXX	.800	.600	.540	.600	XXXX	XXXX	XXXX
	4	.180	.120	.103	.090	.360	.240	.206	.180	.720	.480	.412	.360	XXXX	.420	XXXX	XXXX
	6	.103	.080	.060	.055	.206	.160	.120	.110	.412	.320	.240	.220	XXXX	XXXX	.264	XXXX
	8	.072	.046	.042	.036	.120	.077	.070	.060	.240	.154	.140	.120	XXXX	XXXX	XXXX	.172
	10	.053	.038	.030	.026	.088	.063	.050	.043	.176	.126	.100	.086	XXXX	XXXX	XXXX	XXXX
	12	.040	.028	.023	.021	.067	.047	.038	.035	.134	.094	.076	.070	XXXX	XXXX	XXXX	XXXX
20	2	.400	.266	.200	.180	.667	.443	.333	.300	XXXX	.886	.666	.600	.667	XXXX	XXXX	XXXX
	4	.200	.134	.114	.100	.400	.268	.228	.200	.800	.536	.456	.400	XXXX	.466	XXXX	XXXX
	6	.114	.089	.066	.062	.228	.178	.132	.124	.456	.356	.264	.248	XXXX	XXXX	.294	XXXX
	8	.080	.057	.047	.040	.133	.095	.078	.067	.266	.190	.156	.134	XXXX	XXXX	XXXX	.190
	10	.059	.042	.033	.029	.098	.070	.055	.048	.196	.140	.110	.096	XXXX	XXXX	XXXX	XXXX
	12	.045	.031	.025	.023	.075	.052	.042	.038	.150	.104	.084	.076	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.074	.050	.037	.030	.123	.083	.062	.050	.246	.166	.124	.100	.123	XXXX	XXXX	XXXX
	4	.037	.024	.021	.019	.074	.048	.042	.038	.148	.096	.084	.076	XXXX	.086	XXXX	XXXX
	6	.021	.016	.013	.011	.042	.032	.026	.022	.084	.064	.052	.044	XXXX	XXXX	.054	XXXX
	8	.015	.010	.009	.007	.025	.017	.015	.012	.050	.034	.030	.024	XXXX	XXXX	XXXX	.035
	10	.010	.008	.006	.005	.017	.013	.010	.008	.034	.026	.020	.016	XXXX	XXXX	XXXX	XXXX
	12	.008	.006	.005	.004	.013	.010	.008	.006	.026	.020	.016	.012	XXXX	XXXX	XXXX	XXXX
6	2	.111	.074	.056	.044	.185	.123	.093	.073	.370	.246	.186	.146	.185	XXXX	XXXX	XXXX
	4	.056	.037	.032	.028	.112	.074	.064	.056	.224	.148	.128	.112	XXXX	.130	XXXX	XXXX
	6	.032	.024	.019	.017	.064	.048	.038	.034	.128	.096	.076	.068	XXXX	XXXX	.080	XXXX
	8	.022	.016	.013	.011	.037	.027	.022	.018	.074	.054	.044	.036	XXXX	XXXX	XXXX	.053
	10	.016	.012	.009	.008	.027	.020	.015	.013	.054	.040	.030	.026	XXXX	XXXX	XXXX	XXXX
	12	.013	.009	.007	.007	.022	.015	.012	.012	.044	.030	.024	.024	XXXX	XXXX	XXXX	XXXX
8	2	.148	.099	.074	.063	.247	.165	.123	.105	.514	.330	.246	.210	.247	XXXX	XXXX	XXXX
	4	.074	.050	.042	.037	.148	.100	.084	.076	.296	.200	.168	.152	XXXX	.172	XXXX	XXXX
	6	.042	.033	.024	.023	.084	.066	.048	.046	.112	.332	.096	.092	XXXX	XXXX	.108	XXXX
	8	.030	.021	.018	.015	.050	.035	.030	.025	.100	.070	.060	.050	XXXX	XXXX	XXXX	.070
	10	.022	.016	.012	.011	.037	.027	.020	.018	.074	.054	.040	.036	XXXX	XXXX	XXXX	XXXX
	12	.016	.012	.010	.008	.027	.020	.017	.013	.054	.040	.054	.026	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.185	.124	.093	.083	.308	.207	.155	.138	.616	.414	.310	.276	.308	XXXX	XXXX	XXXX
	4	.093	.061	.053	.047	.188	.122	.106	.094	.376	.244	.212	.188	XXXX	.216	XXXX	XXXX
	6	.053	.041	.031	.028	.106	.082	.062	.056	.212	.164	.124	.112	XXXX	XXXX	.134	XXXX
	8	.037	.027	.021	.019	.062	.045	.035	.032	.124	.090	.070	.064	XXXX	XXXX	XXXX	.088
	10	.027	.019	.016	.014	.045	.032	.027	.023	.090	.064	.054	.046	XXXX	XXXX	XXXX	XXXX
	12	.021	.015	.012	.010	.035	.025	.020	.017	.070	.050	.040	.034	XXXX	XXXX	XXXX	XXXX
12	2	.222	.148	.111	.100	.370	.247	.185	.167	.617	.414	.370	.334	.370	XXXX	XXXX	XXXX
	4	.111	.074	.064	.056	.222	.148	.128	.112	.444	.296	.256	.224	XXXX	.258	XXXX	XXXX
	6	.064	.050	.037	.034	.128	.100	.074	.068	.256	.200	.148	.136	XXXX	XXXX	.162	XXXX
	8	.044	.032	.026	.022	.073	.053	.043	.037	.146	.106	.086	.074	XXXX	XXXX	XXXX	.107
	10	.033	.024	.019	.016	.055	.040	.032	.027	.110	.080	.064	.054	XXXX	XXXX	XXXX	XXXX
	12	.024	.018	.015	.013	.040	.030	.025	.022	.080	.060	.050	.044	XXXX	XXXX	XXXX	XXXX
14	2	.259	.173	.130	.117	.432	.288	.217	.195	.864	.576	.434	.390	.432	XXXX	XXXX	XXXX
	4	.130	.087	.074	.065	.260	.174	.148	.130	.520	.348	.296	.260	XXXX	.342	XXXX	XXXX
	6	.074	.058	.043	.040	.148	.116	.086	.080	.296	.232	.172	.160	XXXX	XXXX	.190	XXXX
	8	.052	.037	.030	.026	.087	.062	.050	.043	.174	.124	.100	.086	XXXX	XXXX	XXXX	.123
	10	.038	.027	.022	.019	.063	.045	.037	.032	.126	.090	.074	.064	XXXX	XXXX	XXXX	XXXX
	12	.029	.020	.017	.015	.048	.033	.028	.025	.096	.066	.056	.050	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
16	2	.296	.198	.148	.133	.493	.330	.247	.222	.986	.660	.494	.444	.493	XXXX	XXXX	XXXX
	4	.148	.098	.084	.074	.247	.163	.140	.123	.494	.326	.280	.246	XXXX	.366	XXXX	XXXX
	6	.084	.066	.050	.046	.168	.132	.100	.092	.336	.264	.200	.184	XXXX	XXXX	.216	XXXX
	8	.059	.042	.035	.030	.098	.070	.058	.050	.196	.140	.116	.100	XXXX	XXXX	XXXX	.140
	10	.044	.031	.023	.022	.073	.052	.038	.037	.146	.104	.076	.074	XXXX	XXXX	XXXX	XXXX
	12	.033	.023	.016	.015	.055	.038	.027	.025	.110	.076	.054	.050	XXXX	XXXX	XXXX	XXXX
18	2	.333	.222	.167	.150	.555	.370	.278	.250	XXXX	.740	.556	.500	.555	XXXX	XXXX	XXXX
	4	.167	.111	.095	.084	.354	.222	.190	.168	.708	.444	.380	.336	XXXX	.388	XXXX	XXXX
	6	.095	.074	.056	.051	.190	.158	.112	.102	.380	.316	.224	.204	XXXX	XXXX	.244	XXXX
	8	.067	.047	.039	.033	.112	.078	.065	.055	.224	.156	.130	.110	XXXX	XXXX	XXXX	.158
	10	.049	.035	.026	.024	.082	.058	.043	.040	.164	.280	.086	.080	XXXX	XXXX	XXXX	XXXX
	12	.037	.026	.023	.021	.062	.043	.038	.035	.123	.086	.076	.070	XXXX	XXXX	XXXX	XXXX
20	2	.370	.246	.185	.166	.617	.410	.308	.277	XXXX	.820	.616	.554	.617	XXXX	XXXX	XXXX
	4	.185	.124	.106	.093	.410	.248	.212	.186	.820	.496	.424	.372	XXXX	.470	XXXX	XXXX
	6	.106	.082	.061	.057	.212	.164	.122	.114	.424	.328	.244	.228	XXXX	XXXX	.272	XXXX
	8	.074	.053	.044	.037	.123	.088	.073	.062	.246	.176	.146	.124	XXXX	XXXX	XXXX	.177
	10	.055	.039	.031	.027	.092	.065	.052	.045	.184	.130	.104	.090	XXXX	XXXX	XXXX	XXXX
	12	.041	.029	.023	.021	.068	.048	.038	.035	.136	.096	.076	.070	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices											
						Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.069	.046	.034	.031	.115	.077	.057	.052	.230	.154	.114	.104	.115	XXXX	XXXX	XXXX
	4	.034	.023	.020	.017	.068	.046	.040	.034	.092	.092	.080	.068	XXXX	.080	XXXX	XXXX
	6	.020	.015	.012	.010	.040	.030	.024	.020	.080	.060	.048	.040	XXXX	XXXX	.050	XXXX
	8	.014	.010	.008	.007	.023	.017	.013	.012	.046	.034	.026	.024	XXXX	XXXX	XXXX	.033
	10	.010	.008	.006	.005	.017	.013	.010	.008	.034	.026	.020	.016	XXXX	XXXX	XXXX	XXXX
	12	.008	.006	.005	.004	.013	.010	.008	.007	.026	.020	.016	.014	XXXX	XXXX	XXXX	XXXX
6	2	.103	.069	.052	.046	.172	.115	.087	.077	.344	.230	.174	.154	.172	XXXX	XXXX	XXXX
	4	.052	.034	.030	.026	.104	.068	.060	.052	.208	.136	.120	.104	XXXX	.120	XXXX	XXXX
	6	.030	.023	.017	.016	.060	.046	.034	.032	.120	.092	.068	.064	XXXX	XXXX	.074	XXXX
	8	.021	.014	.012	.010	.035	.023	.020	.017	.070	.046	.040	.034	XXXX	XXXX	XXXX	.050
	10	.015	.011	.008	.007	.025	.018	.013	.012	.050	.036	.026	.024	XXXX	XXXX	XXXX	XXXX
	12	.012	.008	.007	.006	.020	.013	.012	.010	.040	.026	.024	.020	XXXX	XXXX	XXXX	XXXX
8	2	.138	.092	.069	.062	.230	.153	.115	.103	.460	.306	.230	.206	.230	XXXX	XXXX	XXXX
	4	.069	.046	.039	.034	.138	.092	.078	.068	.276	.184	.156	.136	XXXX	.160	XXXX	XXXX
	6	.039	.030	.023	.021	.078	.060	.046	.042	.156	.120	.092	.084	XXXX	XXXX	.100	XXXX
	8	.028	.020	.017	.014	.047	.033	.028	.023	.094	.066	.056	.046	XXXX	XXXX	XXXX	.065
	10	.020	.014	.011	.010	.033	.023	.018	.017	.066	.046	.036	.034	XXXX	XXXX	XXXX	XXXX
	12	.015	.011	.009	.008	.025	.018	.015	.013	.050	.036	.030	.026	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Necessary "C" values with practices: Contour stripcropping (Slope length)				Necessary "C" values with practices: Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.172	.115	.086	.078	.287	.192	.143	.130	.574	.384	.286	.260	.287	XXXX	XXXX	XXXX
	4	.086	.057	.049	.043	.172	.114	.098	.086	.344	.228	.196	.172	XXXX	.200	XXXX	XXXX
	6	.049	.039	.029	.026	.098	.078	.058	.052	.196	.156	.116	.104	XXXX	XXXX	.126	XXXX
	8	.034	.025	.020	.017	.057	.042	.033	.028	.114	.084	.066	.056	XXXX	XXXX	XXXX	.082
	10	.025	.018	.014	.013	.042	.030	.023	.022	.084	.060	.046	.044	XXXX	XXXX	XXXX	XXXX
	12	.019	.014	.011	.010	.032	.023	.018	.017	.064	.046	.036	.034	XXXX	XXXX	XXXX	XXXX
12	2	.207	.138	.103	.093	.345	.230	.172	.155	.690	.460	.406	.310	.345	XXXX	XXXX	XXXX
	4	.103	.069	.059	.052	.206	.138	.118	.104	.412	.276	.236	.208	XXXX	.240	XXXX	XXXX
	6	.059	.046	,034	.032	.118	.092	.068	.064	.236	.184	.136	.128	XXXX	XXXX	.152	XXXX
	8	.041	.030	.024	.021	.068	.050	.040	.035	.136	.100	.080	.070	XXXX	XXXX	XXXX	.098
	10	.031	.022	.018	.015	.052	.037	.030	.025	.104	.074	.060	.050	XXXX	XXXX	XXXX	XXXX
	12	.023	.017	.013	.012	.038	.028	.022	.020	.076	.056	.044	.040	XXXX	XXXX	XXXX	XXXX
14	2	.241	.161	.121	.109	.402	.268	.202	.182	.804	.536	.404	.364	.402	XXXX	XXXX	XXXX
	4	.121	.080	.069	.061	.242	.160	.138	.122	.484	.320	.276	.244	XXXX	.282	XXXX	XXXX
	6	.069	.054	.040	.037	.138	.108	.080	.074	.278	.216	.160	.148	XXXX	XXXX	.176	XXXX
	8	.048	.034	.028	.024	.080	.057	.047	.040	.160	.114	.094	.080	XXXX	XXXX	XXXX	.115
	10	.035	.026	.020	.017	.058	.043	.033	.028	.116	.086	.066	.056	XXXX	XXXX	XXXX	XXXX
	12	.027	.019	.015	.014	.045	.032	.025	.023	.090	.064	.050	.046	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length) 100′	200′	300′	400′	Necessary "C" values with practices: Contouring (Slope length) 100′	200′	300′	400′	Contour stripcropping (Slope length) 100′	200′	300′	400′	Contouring with terraces (Spacings) 100′	75′	67′	56′
16	2	.276	.184	.138	.124	.460	.307	.230	.207	.920	.614	.460	.414	.460	XXXX	XXXX	XXXX
	4	.138	.092	.079	.069	.276	.184	.158	.138	.552	.368	.316	.276	XXXX	.322	XXXX	XXXX
	6	.079	.061	.046	.043	.158	.122	.092	.086	.316	.244	.184	.172	XXXX	XXXX	.202	XXXX
	8	.055	.039	.032	.028	.092	.065	.053	.047	.184	.130	.106	.094	XXXX	XXXX	XXXX	.132
	10	.041	.029	.023	.020	.068	.048	.038	.033	.136	.096	.076	.066	XXXX	XXXX	XXXX	XXXX
	12	.030	.022	.018	.016	.050	.037	.030	.027	.100	.074	.060	.054	XXXX	XXXX	XXXX	XXXX
18	2	.310	.207	.155	.139	.517	.345	.258	.232	XXXX	.690	.516	.464	.517	XXXX	XXXX	XXXX
	4	.155	.103	.089	.078	.310	.206	.178	.156	.620	.412	.356	.312	XXXX	.362	XXXX	XXXX
	6	.089	.069	.052	.048	.178	.138	.104	.096	.356	.276	.208	.192	XXXX	XXXX	.226	XXXX
	8	.062	.044	.037	.031	.103	.073	.062	.052	.206	.146	.122	.104	XXXX	XXXX	XXXX	.148
	10	.046	.032	.026	.023	.077	.053	.043	.038	.154	.106	.086	.076	XXXX	XXXX	XXXX	XXXX
	12	.034	.024	.020	.018	.057	.040	.033	.030	.114	.080	.066	.060	XXXX	XXXX	XXXX	XXXX
20	2	.345	.230	.172	.155	.575	.383	.287	.258	XXXX	.766	.574	.516	.575	XXXX	XXXX	XXXX
	4	.172	.115	.099	.086	.344	.230	.198	.172	.688	.460	.396	.344	XXXX	.412	XXXX	XXXX
	6	.099	.077	.057	.053	.198	.154	.114	.106	.396	.308	.228	.212	XXXX	XXXX	.252	XXXX
	8	.069	.049	.041	.034	.115	.082	.068	.057	.230	.164	.136	.114	XXXX	XXXX	XXXX	.165
	10	.051	.037	.029	.025	.085	.062	.048	.042	.170	.124	.096	.084	XXXX	XXXX	XXXX	XXXX
	12	.039	.027	.022	.019	.065	.045	.037	.032	.130	.090	.074	.064	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
4	2	.065	.043	.032	.029	.108	.072	.053	.048	.216	.144	.106	.096	.108	XXXX	XXXX	XXXX
	4	.032	.021	.019	.016	.064	.042	.038	.032	.128	.084	.076	.064	XXXX	.074	XXXX	XXXX
	6	.019	.014	.011	.010	.038	.028	.022	.020	.076	.056	.044	.040	XXXX	XXXX	.046	XXXX
	8	.013	.009	.008	.006	.022	.015	.013	.010	.044	.030	.026	.020	XXXX	XXXX	XXXX	.032
	10	.009	.007	.005	.005	.015	.012	.008	.008	.030	.024	.016	.016	XXXX	XXXX	XXXX	XXXX
	12	.007	.005	.005	.004	.012	.008	.008	.007	.024	.016	.016	.014	XXXX	XXXX	XXXX	XXXX
6	2	.097	.065	.048	.043	.162	.108	.080	.072	.324	.216	.160	.144	.162	XXXX	XXXX	XXXX
	4	.048	.032	.028	.025	.096	.064	.056	.050	.192	.128	.112	.100	XXXX	.112	XXXX	XXXX
	6	.028	.021	.016	.015	.056	.042	.032	.030	.112	.084	.064	.060	XXXX	XXXX	.070	XXXX
	8	.019	.014	.012	.010	.032	.023	.020	.017	.064	.046	.040	.034	XXXX	XXXX	XXXX	.047
	10	.014	.010	.008	.007	.023	.017	.013	.012	.046	.034	.026	.024	XXXX	XXXX	XXXX	XXXX
	12	.011	.008	.006	.006	.018	.013	.010	.010	.036	.026	.020	.020	XXXX	XXXX	XXXX	XXXX
8	2	.129	.086	.065	.058	.215	.143	.108	.097	.430	.286	.216	.194	.215	XXXX	XXXX	XXXX
	4	.065	.043	.037	.032	.130	.086	.074	.064	.260	.172	.148	.128	XXXX	.150	XXXX	XXXX
	6	.037	.028	.021	.020	.074	.056	.042	.040	.148	.112	.084	.080	XXXX	XXXX	.094	XXXX
	8	.026	.019	.015	.013	.043	.032	.025	.022	.086	.064	.050	.044	XXXX	XXXX	XXXX	.062
	10	.019	.014	.010	.009	.032	.023	.017	.015	.064	.046	.034	.030	XXXX	XXXX	XXXX	XXXX
	12	.014	.010	.008	.007	.023	.017	.013	.012	.046	.034	.026	.024	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T K	Slope %	Necessary "C" values with no practice (Slope length)				Necessary "C" values with practices: Contouring (Slope length)				Contour stripcropping (Slope length)				Contouring with terraces (Spacings)			
		100′	200′	300′	400′	100′	200′	300′	400′	100′	200′	300′	400′	100′	75′	67′	56′
10	2	.161	.108	.081	.068	.268	.180	.135	.113	.536	.360	.270	.226	.268	XXXX	XXXX	XXXX
	4	.081	.054	.046	.041	.162	.108	.092	.082	.324	.216	.184	.164	XXXX	.188	XXXX	XXXX
	6	.046	.036	.027	.025	.092	.072	.054	.050	.184	.144	.108	1.00	XXXX	XXXX	.108	XXXX
	8	.032	.023	.019	.016	.053	.038	.032	.027	.106	.076	.064	.054	XXXX	XXXX	XXXX	.077
	10	.024	.017	.013	.012	.040	.028	.022	.020	.080	.056	.044	.040	XXXX	XXXX	XXXX	XXXX
	12	.018	.013	.010	.009	.030	.022	.017	.015	.060	.044	.034	.030	XXXX	XXXX	XXXX	XXXX
12	2	.194	.129	.097	.087	.323	.215	.162	.145	.646	.430	.324	.290	.323	XXXX	XXXX	XXXX
	4	.097	.065	.055	.048	.194	.130	.110	.096	.388	.260	.220	.192	XXXX	.226	XXXX	XXXX
	6	.055	.043	.032	.030	.110	.086	.064	.060	.220	.172	.128	.120	XXXX	XXXX	.142	XXXX
	8	.039	.028	.023	.019	.065	.047	.038	.032	.130	.094	.076	.064	XXXX	XXXX	XXXX	.092
	10	.029	.021	.016	.012	.048	.035	.027	.020	.096	.070	.054	.040	XXXX	XXXX	XXXX	XXXX
	12	.021	.014	.012	.011	.035	.023	.020	.018	.070	.046	.040	.036	XXXX	XXXX	XXXX	XXXX
14	2	.226	.151	.113	.101	.377	.252	.188	.168	.774	.504	.376	.336	.377	XXXX	XXXX	XXXX
	4	.113	.075	.065	.057	.226	.150	.130	.114	.452	.300	.260	.228	XXXX	.264	XXXX	XXXX
	6	.065	.050	.037	.035	.130	.100	.074	.070	.260	.200	.148	.140	XXXX	XXXX	.164	XXXX
	8	.045	.032	.026	.023	.075	.053	.043	.038	.150	.106	.086	.076	XXXX	XXXX	XXXX	.108
	10	.034	.024	.019	.016	.057	.040	.032	.027	.114	.080	.064	.054	XXXX	XXXX	XXXX	XXXX
	12	.025	.017	.014	.013	.042	.028	.023	.022	.084	.056	.046	.044	XXXX	XXXX	XXXX	XXXX

Table 9. Cropping-management values for selected R, T/K, and slopes (continued)

T/K	Slope %	Necessary "C" values with no practice (Slope length) 100′	200′	300′	400′	Necessary "C" values with practices: Contouring (Slope length) 100′	200′	300′	400′	Contour stripcropping (Slope length) 100′	200′	300′	400′	Contouring with terraces (Spacings) 100′	75′	67′	56′
16	2	.258	.172	.129	.116	.430	.287	.215	.193	.860	.574	.430	.386	.430	XXXX	XXXX	XXXX
	4	.129	.086	.074	.065	.258	.172	.148	.130	.516	.344	.296	.260	XXXX	.300	XXXX	XXXX
	6	.074	.057	.043	.040	.148	.114	.086	.080	.296	.228	.172	.160	XXXX	XXXX	.188	XXXX
	8	.052	.037	.030	.026	.087	.062	.050	.043	.174	.124	.100	.086	XXXX	XXXX	XXXX	.123
	10	.038	.027	.022	.019	.063	.045	.037	.032	.126	.090	.074	.064	XXXX	XXXX	XXXX	XXXX
	12	.028	.020	.016	.015	.047	.033	.027	.025	.094	.066	.054	.050	XXXX	XXXX	XXXX	XXXX
18	2	.290	.194	.145	.130	.483	.323	.242	.217	.966	.646	.484	.434	.483	XXXX	XXXX	XXXX
	4	.145	.097	.083	.073	.290	.194	.166	.146	.580	.388	.332	.292	XXXX	.338	XXXX	XXXX
	6	.083	.065	.048	.045	.166	.130	.096	.090	.332	.260	.192	.180	XXXX	XXXX	.21	XXXX
	8	.058	.041	.034	.029	.097	.068	.057	.048	.194	.136	.114	.096	XXXX	XXXX	XXXX	.138
	10	.043	.030	.024	.021	.072	.050	.040	.035	.144	.100	.080	.070	XXXX	XXXX	XXXX	XXXX
	12	.032	.022	.018	.017	.053	.037	.030	.028	.106	.074	.060	.056	XXXX	XXXX	XXXX	XXXX
20	2	.323	.215	.161	.145	.538	.358	.268	.242	1.076	.716	.536	.484	.538	XXXX	XXXX	XXXX
	4	.161	.108	.092	.081	.322	.216	.184	.162	.644	.432	.368	.324	XXXX	.376	XXXX	XXXX
	6	.092	.072	.054	.050	.184	.144	.108	.100	.368	.288	.216	.200	XXXX	XXXX	.236	XXXX
	8	.065	.046	.038	.032	.108	.077	.063	.053	.216	.154	.126	.106	XXXX	XXXX	XXXX	.153
	10	.048	.034	.027	.023	.080	.057	.045	.038	.160	.114	.090	.076	XXXX	XXXX	XXXX	XXXX
	12	.036	.025	.020	.019	.060	.042	.033	.032	.120	.084	.066	.064	XXXX	XXXX	XXXX	XXXX

REFERENCES CITED

1. Smith, D. D., and W. H. Wischmeier. 1957. Factors affecting sheet and rill erosion. Trans. Am. Geo. Union. 38(6):889-896.

2. Springer, D. K., C. B. Breinig, and M. E. Springer. 1963. Predicting soil losses in Tennessee. Jour. Soil and Water Conservation. 18(4):157-158.

3. U.S. Department of Agriculture. Agricultural Research Service. 1961. A universal equation for predicting rainfall-erosion losses. ARS 22-66. 11P.

4. U.S. Department of Agriculture. Agricultural Research Service. 1965. Rainfall-erosion losses from cropland east of the Rocky Mountains. Agr. Hnbk. No. 282. 44P.

5. Wischmeier, W. H., and D. D. Smith. 1958. Rainfall energy and its relation to soil loss. Trans. Am. Geo. Union. 39(2):285-291.

6. ———————, D. D. Smith, and R. E. Uhland. 1958. Evaluation of factors in the soil loss equation. Agr. Eng. 39(8):458-462, 474.

7. ———————. 1959. A rainfall erosion index for a universal soil-loss equation. Soil Sci. Soc. Am. Proc. 23(3):246-249.

8. ———————. 1960. Cropping-management factor evaluations for a universal soil-loss estimating equation. Soil Sci. Soc. Am. Proc. 24(4):322-326.

9. ———————. 1962. Storms and soil conservation. Jour. Soil and Water Conserv. 17(2):55-59.

10. ———————. 1962. Rainfall erosion potential. Agr. Eng. 43(4):212-215.

11. ———————, and D. D. Smith. 1960. A universal soil-loss estimating equation to guide conservation farm planning. Trans. 7th Congr. Inter. Soil Sci. Soc. VI-2:418-425.

12. Zingg, A. W. 1940. Degree and length of land slope as it affects soil loss in runoff. Agr. Eng. 21:59-64.

THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXPERIMENT STATION
KNOXVILLE, TENNESSEE

STATION OFFICERS

Administration

Andrew D. Holt, President
Webster Pendergrass, Dean of Agriculture
E. J. Chapman, Assistant Dean
J. A. Ewing, Director
Eric Winters, Associate Director
J. L. Anderson, Budget Officer

Department Heads

S. E. Bennett, Agricultural Biology
T. J. Whatley, Agricultural Economics and Rural Sociology
J. J. McDow, Agricultural Engineering
O. G. Hall, University of Tennessee at Martin
L. F. Seatz, Agronomy
C. S. Hobbs, Animal Husbandry Veterinary Science
Ruth L. Highberger, Child Development and Family Relationships
J. T. Miles, Dairying
Grayce E. Goertz, Foods and Institution Management
M. R. Johnston, Food Technology
J. W. Barrett, Forestry
Myra L. Bishop, Home Management, Equipment, and Family Economics
B. S. Pickett, Horticulture
R. L. Hamilton, Information
Mary R. Gram, Nutrition
K. L. Hertel, Physics
O. E. Goff, Poultry
Anna J. Treece, Textiles and Clothing

University of Tennessee Agricultural Research Units

Main Station, Knoxville, J. N. Odom, Superintendent of Farms
University of Tennessee-Atomic Energy Commission Agricultural Research Laboratory, Oak Ridge, N. S. Hall, Laboratory Director

Branch Stations

Dairy Experiment Station, Lewisburg, J. R. Owen, Superintendent
Highland Rim Experiment Station, Springfield, L. M. Safley, Superintendent
Middle Tennessee Experiment Station, Spring Hill, J. W. High, Jr., Superintendent
Plateau Experiment Station, Crossville, J. A. Odom, Superintendent
Tobacco Experiment Station, Greeneville, J. H. Felts, Superintendent
West Tennessee Experiment Station, Jackson, B. P. Hazlewood, Superintendent

Field Stations

Ames Plantation, Grand Junction, James M. Bryan, Manager
Cumberland Forestry Field Station, Wartburg, J. S. Kring, Manager
Friendship Forestry Field Station, Chattanooga
Highland Rim Forestry Field Station, Tullahoma, P. J. Huffman, Jr., Manager
Milan Field Station, Milan, T. C. McCutchen, Manager
Oak Ridge Forest and Arboretum, Oak Ridge, R. D. MacDonald, Manager

(4M/5-68)