

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSTRUCTION SPECIFICATIONS**

**STRIPCROPPING**

**1. Scope**

The work shall consist of growing crops, forages, or fallow in a systematic arrangement of equal width strips across a field.

**2. Field Layout**

**To Reduce Soil Erosion by Wind.** Parallel planted strips or alternating planted and fallow strips will be laid out across the field at an angle from 65 to 90 degrees to the direction of prevailing erosive winds as shown on the drawing and specified on the practice requirements job sheet.

Strips will be designed for width and direction according to procedures as described in the National Agronomy Manual, Part 502, Section 502.34, or utilizing the Kansas version of the Wind Erosion Equation (WEQ) Excel Spreadsheet to meet the wind erosion control and/or the crop tolerance (Table 502-4 of the National Agronomy Manual, or Table 2, Critical Slope Length for Contouring).

The width of strips shall not exceed the width specified on the practice requirements job sheet as determined by the use of the WEQ or other approved wind erosion prediction technology.

The maximum strip width will be 660 feet and will be measured along the prevailing erosive wind direction for the critical wind erosion management period.

Strip widths will be compatible with planting equipment widths.

Strips of growing crops susceptible to wind erosion must be alternated with strips having a protective cover that is resistant to wind erosion. Strips of protective cover may be the same width as erosion susceptible strips, but shall not be less than 25 feet.

Strips will be approximately uniform in width; however, field edge strips widths may be irregular.

When narrow strips of tall growing, wind-tolerant crops are planned to protect wider strips of wind sensitive crops, the width between the protective strips shall be no more than 20 times the height of the barrier strips.

Protective cover strips shall be growing crops or crop residue, which provide protective cover during periods when wind erosion is expected to occur. Acceptable protective cover includes growing crops, grasses, legumes, grass-legume mixtures, standing stubble, or tilled residue (ridge roughness or random roughness will be include as tilled residue).

Protective cover will have a near zero predicted wind erosion rate. Tables 1a and 1b show the amount of Flat Small Grain Equivalent needed to achieve a near zero rate of erosion.

See Exhibit 502-10 of the National Agronomy Manual for Small-Grain Equivalent tables for various crops.

**Table 1a**

(Approximate WEQ lbs/ac of Small Grain Equivalent required having a protected condition)

K=1.0

<b>C</b>	<b>I = 48</b> (lbs/ac)	<b>I = 56</b> (lbs/ac)	<b>I = 86</b> (lbs/ac)	<b>I = 134</b> (lbs/ac)	<b>I = 250</b> (lbs/ac)
<b>60</b>	1500	1750	2000	2500	2750
<b>80</b>	2000	2000	2250	2750	3000
<b>100</b>	2000	2000	2500	2750	3500
<b>120</b>	2000	2250	3000	3000	4000

**Table 1b**

(Approximate WEQ lbs/ac of Small Grain Equivalent required having a protected condition)

K = 0.5

<b>C</b>	<b>I = 48</b> (lbs/ac)	<b>I = 56</b> (lbs/ac)	<b>I = 86</b> (lbs/ac)	<b>I = 134</b> (lbs/ac)	<b>I = 250</b> (lbs/ac)
<b>60</b>	1250	1250	1500	2000	2250
<b>80</b>	1250	1500	1750	2000	2750
<b>100</b>	1500	1500	2000	2250	2750
<b>120</b>	1500	1750	2000	2500	2750

**To Reduce Soil Erosion by Water:**

The field layout will be as staked for steepness of slope, contour gradients, and strips widths.

Row grades for slow to very slow infiltration rates (soil hydrology groups C or D), or for crops sensitive to ponded water for periods of less than 48 hours, will have a positive row grade of not less than 0.2.

The maximum row grade will not exceed two percent or one-half of the uphill and downhill slope percent used to predict sheet and rill erosion. (Use whichever is less.)

Up to three percent row grade may be used within 150 feet of a stable outlet.

The minimum ridge height will provide the equivalent protection that would be accomplished with a one-half to two-inch ridge on a level contour during the period of the cropping management system most vulnerable to sheet and rill erosion. This requirement does not apply when close grown crops, such as small grains, are grown in the contour strip and the plant height will be at least six inches and the distance between plants will be less than two inches.

The minimum ridge height will not be required in those cropping management systems that maintain at least 50 percent surface cover after planting a crop.

No two adjacent strips will be in an erosion-prone condition during the year.

The maximum width of strips will be determined by Table 2.

All tillage and other cultural operations will be performed on the contour.

Strip width limit may be adjusted upward by 10 percent to accommodate widths of farm equipment.

Lay out strip boundaries as near as possible to the contour or parallel to terraces or diversions, if used in conjunction with the contour stripcropping. Farming operations will be done parallel to the strip boundaries. Adjustments may be made for farmability, provided row grades do not exceed two percent. Three percent grade may be used in correction areas and entering a stable outlet for

distances less than 100 feet. Areas exceeding two percent row grade will not be greater than 10 percent of the field.

**Table 2**

<b>Critical Slope Length for Contouring</b>			
<b>Slope</b>	<b>Critical Slope</b>	<b>Maximum Hillslope</b>	<b>Max. Crop Strip</b>
<b>%</b>	<b>Length</b>	<b>Length</b>	<b>Width</b>
1 - 2	400	600	130
3 - 5	300	450	100
6 - 8	200	300	100
9 - 12	120	180	80
13 - 16	80	120	80
17 - 20	60	90	60
21 - 25	50	75	50

- Limit may be increased by 25 percent if residue cover after crop planting consistently exceeds 50 percent.
- Adjust strip width, generally downward to accommodate farm equipment.

### **3. Maintenance**

Strips shall be established each year in a manner that provides the designed widths and vegetative covers during the critical erosion period(s) specified on the practice requirements job sheet.

### **4. Other Requirements**

Operations shall be done in such a manner that erosion and air and water pollution are minimized and held within legal limits.

The owner, operator, contractor, and other persons shall conduct all work and operations in accordance with proper safety codes for the type of equipment and operations being performed with due regard for the safety of all persons and their property.

### **5. Documentation**

Documentation will be completed on Form KS-ECS-585, Stripcropping; Form KS-ECS-330, Contour Farming; and the Cropland Field Management Report to define the scope of this practice.