SOIL CONDITIONING INDEX WORKSHEET

Producer: John Doe | Location: Bennet, Ne | Staff:
Tract: 12345 | Field: 1

A. Site Information

Location code: 27497 (from tbl 1) | City File: LINCOLN NE | Rainfall Factor R: 150 (RUSLE)

Soil: | Soil Erodibility Factor K (adjusted Kf): 0.36
Slope, Length & Percent (LS factor): 0.93 (RUSLE)
Soil Loss Tolerance "T": 5 ton/ac

Maintenance Amount: | "Residue Equivalent Values" (REV): 5455 lbs./ac

B. Management Information

Number of Yrs in Rotation: 2 | Crop Rotation: corn- soybeans

Tillage Sytem: Mulch-till | Crop Mgt Factor C: 0.21 (RUSLE)

Support Conservation Practices: none | Support Practice Factor P: 1.00 (RUSLE)

C. Organic Material (OM)

From Table 6

Crop Code No	Crop	Yield	Harv Unit/Ac	Wt Harv Unit (lbs)	Res: Yield Ratio	Res Prod	Root Mass Adjust	Biomass Prod	Biomass Removed or Added	Total Biomass	Crop Group	REV Conv	REV lbs/ac
145	corn;125bu 120da 30"	125	bushels	56	1	7000	1.151	8060		8060	C	1.00	8060
517	soybean; 7" 35bu mw	35	bu	60	1.25	2625	1.133	2975		2975	F	0.92	2725

TOTAL REV:	10785
NO. YEARS IN ROT.:	2
AVE. ANNUAL (RP):	5392
MAINT. AMNT. (MA):	5455
SUBFACTOR (OM):	-0.01

D. Field Operations (FO)

Soil Disturbance Rating (SDR) from Table 2

Op#	Operation Name	SDR
13	Chisel; straight points 2.0 (rough)	19
35	Disk, Tandem finishing (< 6" depth)	18
29	Cultivator; field, sweep shovels	20
81	Planter >20"Double disk openers	5
69	Harvest, w/o soil disturbance	5
13	Chisel; straight points 2.0 (rough)	19
35	Disk, Tandem finishing (< 6" depth)	18
29	Cultivator; field, sweep shovels	20
53	Drill; double disk 6-10 inch w/packers	9
69	Harvest, w/o soil disturbance	5

Total SDR for Rotation:	138
Average Annual SDR:	69.0
Field Operations Subfactor (FO), Table 3:	0.32

E. Erosion (ER)

	Sheet & Rill:	RUSLE Calc.:	Wind:	Irrigation:
Predicted Erosion:		10.5		

Soil Loss Tolerance: 5 ton/ac | Total Avg Annual Erosion: 10.5 ton/ac

Avg Annual Erosion (Multiples of T): 2.11 | Erosion Subfactor (ER) Table 4: -1.28

F. Soil Conditioning Index

SCI = OM*0.4 + FO*0.40 + ER*0.20

Soil Conditioning Index = -0.13

G. Recommendations:

Need to reduce the effects of excessive tillage and erosion. Try switching to no-till.

ORGANIC MATTER				FIELD OPERATIONS			EROSION		
CROPS	Maintenance Amount	Average Annual Residue Equivalent Lbs. /ac.	OM Subfactor	Tillage system	Average Annual Soil Disturbance Rating	FO Subfactor	Erosion Rate	ER Subfactor	Soil Conditioning Index
C,SB.W	5573	5100	-0.08	MB PLOW	105.7	-0.04	12	-1.52	-0.35
C,SB.W	5573	5100	-0.08	MULCHTILL	77.3	0.24	6	-0.4	-0.02
C,SB.W	5573	6411	0.15	NOTILL	16.3	0.84	3	0.25	0.45