

IOWA RUSLE2 COMPLIANCE PLAN

RUSLE2 SOFTWARE DETAILS

- Program version: Aug 18 2014
- Database name: Area 2 Feb 2015 moses

File: plans\Marshall Compliance Options

Inputs:

<i>Owner name</i>	<i>Location</i>	<i>Tract #</i>
	USA\Iowa\Marshall County	

<i>Field name</i>	<i>Soil</i>	<i>Slope T Value</i>	<i>Slope length, ft</i>	<i>Slope steepness, %</i>
C slopes	soils\Marshall County, Iowa\20C2 Killduff silty clay loam, 5 to 9 percent slopes, moderately eroded\Killduff Silty clay loam moderately eroded 95%	5.0	150	7.0
D slopes	soils\Marshall County, Iowa\20D2 Killduff silty clay loam, 9 to 14 percent slopes, moderately eroded\Killduff Silty clay loam moderately eroded 95%	5.0	150	12
E slopes	soils\Marshall County, Iowa\24E2 Shelby loam, 14 to 18 percent slopes, moderately eroded\Shelby Loam moderately eroded 90%	5.0	97	16

Results:

<i>Field name</i>	<i>Description</i>	<i>Management</i>	<i>Contouring system</i>	<i>Support practices</i>	<i>Terrace/diversion system</i>	<i>Cons. plan. soil loss, t/ac/yr</i>
C slopes	Grandfathered System Rotation: Corn-Soybean - Tillage: Corn will be no-tilled leaving at least 40% of the ground covered by residue after planting. Soybeans will be no-tilled leaving at least 60% of the ground covered by residue after planting. - Contouring: required - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High Yield NT,anhyd, Soybean;wr, NT z4	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	1.0
C slopes	Rotation: Corn-Corn-Soybean - Tillage: In the fall after both corn harvests: corn stalks are fall subsoil disk ripped and spring field cultivated before planting leaving at least 40% residue after planting. Bean stubble is spring field cultivated leaving at least 40% residue after planting. - Anhydrous: may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn; high yield, Fall NH3, Sfcult, plant; Corn Fshred, Fdiskrip, Fall NH3, Sfcult, plant; Soybeans Fshred, Fdiskrip, Sfcult, plant	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.9
C slopes	Rotation: Corn-Soybean - Tillage: Corn is strip-tilled into bean residue leaving at least 65% residue after planting. Soybeans are no-tilled leaving at least 85% residue after planting. - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\Corn FStrip till-Soybeans wr NT	contour-systems\a. rows up-and-down hill	-- none --	-- none --	1.5
C slopes	Corn stalks may be shredded, fall subsoil disk ripped and spring field cultivated leaving at least 30% residue after planting. Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\continuous corn; High yield Fanhyd, Fshred, Fdiskrip, Sfcult, plant	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.4
C slopes	Rotation: Continuous Corn with liquid manure - Tillage: Corn stalks may be shredded followed by fall injection of manure, subsoil disk ripped and spring field cultivated leaving at least 30% residue after planting.	managements\CMZ 04\c.Other Local Mgt Records\continuous corn; High yield Fshred, Fmanure injected, Fdiskrip, Sfcult, plant	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.7

C slopes	Rotation: Corn-Soybean - Tillage: Bean residue is spring tilled with a vertical tillage implement leaving at least 40% residue after planting. Corn stalks are fall vertical tilled and spring vertical tilled leaving at least 70% residue after planting. - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;Fall NH3, Svertical tillage, plant; Soybean, Fvertical till, Svertical till, plant	contour-systems\a. rows up-and-down hill	-- none --	-- none --	5.0
C slopes	Rotation: Corn - Rye cover- Soybean - Tillage: Bean residue is spring field cultivated, leaving at least 40% residue after planting. Following harvest, a rye cover crop is no-till drilled in the corn residue in mid-October. The rye cover crop is terminated in the spring with herbicide, then disked and field cultivated, leaving at least 55% residue after planting. - Anhydrous may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain; High yield Fall NH3, Sfcult, plant; rye cover; Soybean, Sdisk, Sfcult, plant	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.9
C slopes	Rotation: Corn -Soybean - Tillage: Bean residue is spring field cultivated leaving at least 30% residue after planting. Soybeans are no-till planted into the standing corn stalks, leaving at least 75% residue after planting. - Anhydrous may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\Corn Fall NH3, Spg fcult- Soybeans, wr, NT z4	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.9
C slopes	Rotation: Corn - Corn - Soybean - Tillage: The first year of Corn - manure is fall injected on the bean residue, then spring field cultivated leaving at least 40% residue after planting. The second year of Corn - manure is fall injected into the standing corn stalks, fall disk ripped, then spring field cultivated, leaving at least 40% residue after planting. Soybeans - corn stalks are fall disk ripped and spring field cultivated, leaving 50% residue after planting.	managements\CMZ 04\c.Other Local Mgt Records\Corn Fmanure, Spgfcult- Corn Fmanure, Fsubsoil diskrip, spgfcult - Soybeans Fsubsoil diskrip, spgfcult	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.9

D slopes	Grandfathered System Rotation: Corn-Soybean - Tillage: Corn will be no-tilled leaving at least 40% of the ground covered by residue after planting. Soybeans will be no-tilled leaving at least 60% of the ground covered by residue after planting. - Contouring: required - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High Yield NT,anhyd, Soybean;wr, NT z4	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	1.9
D slopes	Rotation: Corn-Soybean - Tillage: Corn is no-tilled leaving at least 50% residue after planting. Soybeans are no-tilled leaving at least 75% residue after planting. - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High Yield NT,anhyd, Soybean;wr, NT z4	contour-systems\a. rows up-and-down hill	-- none --	-- none --	2.4
D slopes	Rotation: Corn-Soybean - Tillage: Corn is strip-tilled into bean residue leaving at least 45% residue after planting. Soybeans are no-tilled leaving at least 75% residue after planting. - Contouring: required - Strip-till: may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\Corn FStrip till-Soybeans wr NT	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	2.6
D slopes	Rotation: Cont Corn - Tillage: Corn stalks may be fall disked and spring field cultivated leaving at least 35% residue after planting. - Contouring: required - Anhydrous may be applied in the fall. - Contour Grass Buffer Strip: one contour grass buffer strip of perennial vegetation at least 30 ft. wide will be established in the middle of the slope.	managements\CMZ 04\c.Other Local Mgt Records\corn grain; High yieldFanhyd, Fdisk, fcult, z4	contour-systems\b. absolute row grade 2 percent	strip-barrier-systems\Contour Buffer Strips\Actual Width 30 ft\1-Cool season grass buffer midslope 30 feet wide	-- none --	2.1
D slopes	Rotation:Cont Corn - Tillage: Corn is vertical tilled in the spring leaving at least 50% residue after planting. - Contouring: required - Anhydrous may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;NT,FStrip till, Soybean, wr, Sdisk, fcult z4	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	4.4

D slopes	Rotation: Corn - Rye cover - Soybean - Tillage: Bean stubble is spring phoenix harrowed leaving at least 50% residue after planting. Rye cover is aerial applied into standing corn at black layer. Beans are no-tilled into living rye cover crop leaving at least 85% residue after planting. Rye cover crop is sprayed and killed before soybeans emerge - Anhydrous may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High yield Pheonix Harrow w rye cover interseeded Soybean, wr, NT z4	contour-systems\a. rows up-and-down hill	-- none --	-- none --	3.3
E slopes	Grandfathered system Rotation: Corn-Soybean - Tillage: Corn will be no-tilled leaving at least 40% of the ground covered by residue after planting. Soybeans will be no-tilled leaving at least 60% of the ground covered by residue after planting. - Contouring: required - Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High Yield NT,anhyd, Soybean;wr, NT z4	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	3.6
E slopes	Rotation: Corn-Soybean - Tillage: Corn is no-tilled leaving at least 40% residue after planting. Soybeans are no-tilled leaving at least 70% residue after planting. Anhydrous may be applied in the fall.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High Yield NT,anhyd, Soybean;wr, NT z4	contour-systems\a. rows up-and-down hill	-- none --	-- none --	4.7
E slopes	Rotation: Corn-Corn-Soybean - Tillage: Corn is strip-tilled into bean residue leaving at least 50% residue after planting. Corn is strip-tilled into corn residue leaving 70% residue after planting. Soybeans are no-tilled leaving at least 80% of the ground covered by residue. - Strip-till: may be done in the fall.	managements\CMZ 04\c.Other Local Mgt Records\Corn Fall Strip till- Corn Fall Strip till - Soybeans NT drill	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	3.9

E slopes	Rotation: Corn-Corn - Tillage: Corn stalks may be fall disked and spring field cultivated leaving at least 30% residue after planting. - Contouring: required - Anhydrous may be applied in the fall. - Contour Grass Buffer Strip: one contour grass buffer strip of perennial vegetation at least 30 ft. wide will be established in the middle of the slope.	managements\CMZ 04\c.Other Local Mgt Records\corn grain; High yieldFanhyd, Fdisk, fcult, z4	contour-systems\b. absolute row grade 2 percent	strip-barrier-systems\Contour Buffer Strips\Actual Width 30 ft\1-Cool season grass buffer midslope 30 feet wide	-- none --	3.5
E slopes	Rotation: Corn, Soybean, Alfalfa 3 years - Tillage: Alfalfa is spring plowed and field cultivated, leaving at least 15% residue after planting corn. Beans are no-tilled into corn stalks leaving at least 80% residue after planting. Alfalfa is no-tilled into bean stubble leaving at least 60% residue after planting. Contouring: required during the row crop years.	managements\CMZ 04\c.Other Local Mgt Records\Corn SP high yield - Soybeans NT- Oats alfalfa seeding NT Alfalfa Hay 2yr, 3 cut, 6 tons/acre	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	5.0
E slopes	Rotation: Corn - Rye cover- Soybean - Tillage: Bean stubble is spring phoenix harrowed, leaving at least 50% residue after planting. Rye cover is aerial applied into standing corn at black layer. Beans are no-tilled into living rye cover crop leaving at least 80% residue after planting. Rye cover crop is sprayed and killed before soybeans emerge - Anhydrous may be done in the fall - Contouring required.	managements\CMZ 04\c.Other Local Mgt Records\corn grain;High yield Pheonix Harrow w rye cover interseeded Soybean, wr, NT z4	contour-systems\b. absolute row grade 2 percent	-- none --	-- none --	4.8

Ephemeral gullies are concentrated flow channels formed when rills converge to form shallow channels. They are alternately filled with soil by tillage operations and re-formed in the same general location by subsequent runoff events. Ephemeral gully erosion **must be controlled** in all fields in order to remain eligible for Farm Program benefits.

The following practices can control ephemeral erosion when established and maintained in the proper location:
Your local NRCS staff will provide assistance with layout and design of these practices upon request.

- Field Border: a strip of permanent vegetation established at the edge or around the perimeter of a field
- Grassed Waterway: a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff
- Terrace: an earth embankment, or a combination ridge and channel constructed across the field slope
- Water and Sediment Control Basin: an earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form sediment trap and water detention basin

Participant Signature

Date

Designated Conservationist

Date

SWCD Commissioner

Date