

**Supplemental payment activity –CCR99–Resource Conserving Crop Rotation (RCCR)**



**Enhancement Description**

Resource-conserving crop rotation means a crop rotation that:

1. Includes at least one resource conserving crop as determined by the State Conservationist;
2. Reduces erosion;
3. Improves soil fertility and tilth;
4. Interrupts pest cycles; and
5. In applicable areas, reduces depletion of soil moisture or otherwise reduces the need for irrigation.

**Land Use Applicability**

Cropland

**Benefits**

Resource-conserving crop means a crop that is one of the following:

1. A perennial grass;
2. A legume grown for use as forage, seed for planting, or green manure;
3. A legume-grass mixture;
4. A small grain grown in combination with a grass or legume green manure crop whether interseeded or planted in rotation.

**Conditions Where Enhancement Applies**

This enhancement applies to all annually planted crop land use acres. The enhancement does not apply to permanent hayland, orchards, or vineyards.

**Criteria**

The resource conserving crop rotation shall include at least one of the following resource conserving crops:

1. With at least one other crop in the rotation, include a perennial grass grown at least 2 years from time of planting;
2. With at least one other crop in the rotation, include a legume that is grown at least 2 years from time of planting;
3. With at least one other crop in the rotation, include a legume-grass mixture that is grown at least 2 years from time of planting; or
4. With at least two other crops in the rotation, include a small grain grown in combination with a grass or legume that is used as a green manure, whether interseeded or planted after small grain harvest. Neither the small grain residue nor the cover crop shall be harvested or grazed.



This activity can apply to the modification of an existing RCCR to a higher conservation level by one of the following methods:

1. Add years of grass and/or legumes, (Limited to those rotations with a current perennial grass and/or legumes of at least one year beyond the seeding year, but not more than 4 current years of perennial grass and/or legume).
2. Add diversity of crops grown,
3. Add annual crops with cover crops (cover crops shall not be harvested or grazed).

**Contract Criteria**

1. The rotation shall cover at least 3 fiscal years of the CSP contract.
2. The resource conserving crop rotation is considered adopted when the resource conserving crop is planted on at least 1/3 of the rotation acres. The resource conserving crop must be adopted by the third fiscal year of the contract and established or planted on all rotation acres prior to the final annual payment.

**Adoption Requirements**

This enhancement is considered adopted when #2 of the “contract criteria” above has been met.

**Documentation Requirements**

Planned Resource-Conserving Crop Rotation(s):

List crop rotation(s), resource conserving crops, and cover crops that will follow the specific crops as applicable for each rotation to receive supplemental payment:

Rotation#1: \_\_\_\_\_ Fields: \_\_\_\_\_ Years \_\_\_\_\_  
Resource Conserving Crop(s) to be used: \_\_\_\_\_

Rotation#2: \_\_\_\_\_ Fields: \_\_\_\_\_ Years \_\_\_\_\_  
Resource Conserving Crop(s) to be used: \_\_\_\_\_

Rotation#3: \_\_\_\_\_ Fields: \_\_\_\_\_ Years \_\_\_\_\_  
Resource Conserving Crop(s) to be used: \_\_\_\_\_

Records:

- a. Crop rotation records by field
- b. Cover crops planted

**Michigan Supplement**

**CCR99**

**Approved Resource-Conserving Crops:** For use on Cropland only (does not include permanent hayland, orchards or vineyards)

**1. A Perennial Grass**

Perennial Grasses-Cool	Perennial Grasses-Warm
Creeping Meadow Foxtail	Big Bluestem
June grass	Eastern Gamagrass
Kentucky Bluegrass	Indiangrass
Meadow Fescue	Little Bluestem
Meadow Foxtail	Switchgrass
Orchardgrass	
Red Fescue	
Redtop	
Reed Canary grass	
Ryegrass, Perennial, Italian	
Smooth Bromegrass	
Tall Fescue	
Timothy	
Wheatgrass	

**2. A Legume Grown for use as Forage, Seed for Planting, or Green Manure**

Perennial Legume	Green Manure	
Alfalfa	Annual Medic*	Sorghum or Sorghum Sudan*
Alsike Clover	Berseem Clover*	Sweet Clover (b)
Birdsfoot Trefoil	Crimson Clover*	60/40 mix (Red Clover/Sweet Clover) (b)
Crown Vetch	Field Peas*	80/20 mix (Red Clover/Sweet Clover) (b)
Kura Clover	Hairy Vetch**	
Ladino Clover	Mammoth Red Clover (b)	
Medium Red Clover	Medium Red Clover (b)	
White Clover	Soybeans*	

\*summer annual, \*\*winter annual, (b) biennial

**3. A Legume-Grass Mixture (lbs/ac)**

Mixtures <u>1/</u>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>Legumes</b>															
Alfalfa <u>2/</u>	6								6	6	6	3	6		6
Alsike Clover		4					4								
Birdsfoot Trefoil <u>2/ 3/</u>						3									
Ladino Clover				1	2			1				3			
Red Clover			5	3										3	
<b>Cool-Season Grasses</b>															
Wheatgrass															8
Kentucky Bluegrass						5		2				2. 5	2		
Orchardgrass				3			4			3				3	
Redtop	6	2												3	
Smooth Bromegrass	2		8		8				6				6		
Timothy								4			4	2. 5		3	
<b>Total lbs./ac/mixture</b>	<b>14</b>	<b>6</b>	<b>13</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>12</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>14</b>	<b>12</b>	<b>14</b>

1/ use long-term winter hardy varieties. 2/ Needs to be inoculated with rhizobia bacteria. 3/ See Michigan DNR publication.

**4. A small grain grown in combination with a grass or legume green manure crop whether inter-seeded or planted in rotation. (Use approved grass and legumes from 1 & 2)**

**Legumes in rotation examples:**

1. Winter small grain frost seeded with red/sweet clover- *pollinator benefits fix N*
2. No-till drilling seed after wheat or small grains: *crimson clover, hairy vetch to capture or fix Nitrogen from manure or other sources.*
3. Sow red clover after small grain harvest or frost seed- *to fix Nitrogen for corn or other crops*

**Modification of an existing RCCR to a higher conservation level approved crops**

**Table 1. Michigan High-Residue Producing Crops**

Alfalfa	Soybeans
Alfalfa/Bromegrass or Alfalfa / (grass) mixtures	Spring Barley
Corn Grain; CG narrow rows; Corn seed	Sweet Clover
Grain Sorghum	Sweet Corn
Oats	Winter Cereal Rye
Red Clover	Winter Wheat

**Table 2. A Cover Crop\* following an annual crop**

<b>Legumes</b>	<b>Non-legumes</b>
Annual Alfalfa	Annual Ryegrass
Annual Medic	Barley
Berseem Clover	Buckwheat
Crimson Clover	Cereal Rye
Field Peas	Corn
Hairy Vetch	Field Bromegrass
Mammoth Red Clover	Forage Turnips
Medium Red Clover	Oats
Soybeans	Oil Seed Radish
Sweet Clover	Pacific Gold Mustard
60/40 (RC/SC)	Rape
80/20 (RC/SC)	Sorghum: Sorghum Sudan Grass; Sudan Grass

\*Cover crop seeding rates, dates, and types shall follow the NRCS-MI 340 Cover crop standard and/or MSU guidelines.