



**Irrigation System, Sprinkler (442) and Irrigation Water Management (449) FY2010**

**EQIP Program Sheet – Irrigation**

**MI-EQIP10-5**

**Program Sheet: Irrigation Water Management (449) & Irrigation System, Sprinkler (442)**

**Environmental Quality Incentives Program (EQIP)**

**These practices are designed to promote ground and surface water conservation by providing program payments to producers to carry out eligible conservation activities in order to improve irrigation systems and enhance irrigation efficiencies.**



The NRCS Practices to be implemented within this program are:

- 449- Irrigation Water Management
- 442-Irrigation System Sprinkler

EQIP offers financial assistance to perform system evaluations and install corrective measures to improve the system efficiency. The program payment can also be offered for the installation of a more efficient type of sprinkler system, e.g. (a center pivot replacing a single gun traveler).

**Eligibility Qualifications**

All regular EQIP Eligibility qualifications must be met.

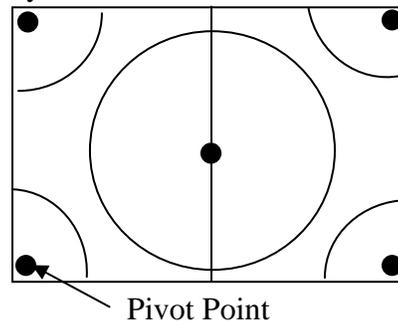
The Producer must have practiced irrigation on the field for 2 of the last 5 years. No increase in irrigated acres is allowed.

The existing system must be a functional system.

Producers with rented fields must have a written contract showing their control through the length of the contract.

One system equals one center pivot or other irrigation system with independent controls or one towable system. See Figure 1.

Figure 1. This illustration shows at total of 5 pivot systems in two fields.





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#### Irrigation System, Sprinkler (442) Practice Requirements

All Scenarios: If a participant receives EQIP financial assistance for Irrigation System, Sprinkler (442) and are currently fully implementing Irrigation Water Management (449) including recordkeeping requirements, it must be documented in Toolkit as applied. If 449 is not being fully implemented at the time of application for 442, 449 must be included as contract items in the application.

#### Scenario 1

Replace sprinkler packages and install pressure regulators on existing Center Pivot irrigation system or existing Linear-Move irrigation system. **Payment Rate = \$ 4.05 per linear foot**  
Contract Unit = linear feet of lateral pipe (pipe where nozzles are attached)

#### Scenario 1 – Conditions

- Coefficient of Uniformity (CU) for retrofitted system must be greater than or equal to 85%.
- Only eligible for existing Center Pivot or existing Linear-Move system with CU less than 85% OR nozzles that are at least 8 years old. (Existing CU documented by in-field system evaluation.)
- Flow measurement with flow meter required for retrofit design.
- Post-retrofit CU  $\geq$  85% documented by in-field system evaluation, Center Pivot Evaluation and Design (CPED), or manufacturer computer model.
- Documentation of post-retrofit CU must be provided to the NRCS office.

#### Scenario 2

Convert existing Big Gun (single gun traveler) irrigation system to Center Pivot irrigation system. **Payment Rate = \$ 4.05 per linear foot**  
Contract Unit = linear feet of Center Pivot lateral pipe (pipe where nozzles are attached)

#### Scenario 2 – Conditions

- Coefficient of Uniformity (CU) for Center Pivot system must be greater than or equal to 85%.
- Center Pivot may not irrigate more acres than those currently irrigated by the Big Gun.

- Flow measurement with flow meter required for retrofit design.
- Post-retrofit CU ( $\geq$  85%) documented by in-field system evaluation, CPED, or manufacturer computer model.
- Documentation of center pivot CU must be provided to the NRCS office.

Note: Resource concern is water conservation through improved efficiency. Therefore, use same cost as Scenario 1 upgrade existing Center Pivot.

#### Scenario 3

Replace sprinkler packages on existing Fixed-Solid-Set or Periodic Move sprinkler irrigation system. **Payment Rate = \$ 0.33 per linear foot**  
Contract Unit = linear feet of lateral pipe (pipe where nozzles are attached)

#### Scenario 3 – Conditions

- CU for retrofitted system must be greater than or equal to 85% for high value crops, shallow-rooted crops, or where system applies fertilizers/pesticides OR 75% for deep-rooted field & forage crops.
- Only eligible for existing Fixed-Solid-Set or Periodic Move sprinkler irrigation systems with CU less than the values noted by crop type OR nozzles that are at least 8 years old. (Existing CU documented by in-field system evaluation.)
- Flow measurement with flow meter required for retrofit design.
- Post-retrofit CU documented by in-field system evaluation or manufacturer computer model.
- Documentation of post-retrofit CU must be provided to the NRCS office.



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**Irrigation Water Management (449) Practice Requirements**

All Scenarios: may not exceed 3 years of Irrigation Water Management financial assistance for any 15 year period on a field.

**Scenario 1**

Center Pivot or Lateral-Move sprinkler irrigation system. Includes in-field system evaluation. **Payment for 1 year**

**Payment Rate = \$ 900 per system**

Contract Unit = number of systems

For towable systems, payment based on one system.

**Scenario 1 – Conditions**

- Conduct in-field system evaluation AND
- Implementation of an Irrigation Water Management Plan – process of determining and controlling the volume, frequency, and application rate of irrigation water; includes scheduling (soil moisture monitoring, weather monitoring, crop needs, application amounts) and recordkeeping.

**Scenario 2**

Center Pivot or Lateral-Move sprinkler irrigation system. NO system evaluation needed. **Payment for up to 3 years**

**Payment Rate = \$ 375 per system**

Contract Unit = number of systems

For towable systems, payment based on one system

**Scenario 2 – Conditions**

- NO system evaluation needed because have in-field evaluation less than 3 years old OR new system less than 3 years old with CPED or manufacturer software uniformity analysis.
- Implementation of an Irrigation Water Management Plan – process of

determining and controlling the volume, frequency, and application rate of irrigation water; includes scheduling (soil moisture monitoring, weather monitoring, crop needs, application amounts) and recordkeeping.

**Scenario 3**

Fixed-Solid-Set or Periodic Move Sprinkler Irrigation System. Includes in-field system evaluation. **Payment for 1 year**

**Payment Rate = \$ 900 per system**

Contract Unit = number of systems

For towable systems, payment based on one system.

**Scenario 3 – Conditions**

- Conduct in-field system evaluation AND
- Implementation of an Irrigation Water Management Plan – process of determining and controlling the volume, frequency, and application rate of irrigation water; includes scheduling (soil moisture monitoring, weather monitoring, crop needs, application amounts) and recordkeeping.



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**Irrigation Water Management (449) Practice Requirements Continued**

**Scenario 4**

Fixed-Solid-Set or Periodic Move Sprinkler Irrigation System. NO system evaluation needed. **Payment for up to 3 years**  
**Payment Rate = \$ 375 per**  
Contract Unit = number of systems  
For towable systems, payment based on one system.

**Scenario 4 – Conditions**

- NO system evaluation needed because have in-field evaluation less than 3 years old OR new system less than 3 years old with manufacturer software uniformity analysis.
- Implementation of an Irrigation Water Management Plan – process of determining and controlling the volume, frequency, and application rate of irrigation water; includes scheduling (soil moisture monitoring, weather monitoring, crop needs, application amounts) and recordkeeping.

**Scenario 5**

Microirrigation (drip) system.  
**Payment for up to 3 years**  
**Payment Rate = \$ 375 per system**  
Contract Unit = number of systems

**Scenario 5 – Conditions**

- Implementation of an Irrigation Water Management Plan – process of determining and controlling the volume, frequency, and application rate of irrigation water; includes scheduling (soil moisture monitoring, weather monitoring, crop needs, application amounts) and recordkeeping.



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**Examples:**

**Example A**

Situation

- Existing 1,000 foot long Center Pivot
- Nozzles 10 years old

Contract

- Irrigation System Sprinkler (442) - Replace sprinkler packages and install pressure regulators on existing Center Pivot irrigation system
  - 1,000 ft. X \$4.05 / ft. = \$4,050
- Irrigation Water Management (449) - Center Pivot irrigation system. NO system evaluation needed.
  - \$375 / year X 3 years = \$1,125

**Example B**

Situation

- Existing 1,000 foot long Center Pivot
- Nozzles 5 years old, no existing system evaluation

Contract

- Irrigation Water Management (449) - Center Pivot irrigation system. Includes in-field system evaluation.
  - \$900 / year X 1 year = \$900.00
  - Note: regardless of CU must still manage system including scheduling and records
- Irrigation Water Management (449) - Center Pivot irrigation system. NO system evaluation needed.
  - \$375 / year X 2 years = \$750

If CU < 85%

Next year contract Irrigation System Sprinkler (442) - Replace sprinkler packages and install pressure regulators on existing Center Pivot

- 1,000 ft. X \$4.05 / ft. = \$4,050

Note: Must continue with Irrigation Water Management for the 2 additional years