



CONSERVATION ENHANCEMENT ACTIVITY

E449B

CONSERVATION STEWARDSHIP PROGRAM

Alternated Wetting and Drying (AWD) of rice fields

Conservation Practice 449: Irrigation Water Management

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Water

PRACTICE LIFE SPAN: 1 year

Enhancement Description

Rice fields are drained and allowed to “dry down” to a saturated soil condition prior to re-flooding the field. System is installed in year 1 with Scenario E449144Z8 and this scenario used in years 2-5.

Criteria

- Deliver water to individual rice paddies through a “multi-inlet” or “side-inlet” distribution system, or the field has been graded flat.
- Prepare and plant the fields using typical agricultural practices.
- If necessary to germinate seed, flood the field, then allow the field to dry down and plants to reach the fifth leaf (first tiller) stage before establishing full flood.
- Flood the field based on typical triggers such as plant growth stage, presence of weeds, and soil moisture.
- Implement a cyclical drying-wetting regime throughout the growing season as follows:
 - Terminate irrigation and allow the field to “dry down” to a saturated soil condition.
 - For sloping fields, the upper 10% of each paddy should reach saturated soil condition prior to the next flood cycle.

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- After dry-down, resume irrigation flooding to typical levels.
- Repeat the cycle throughout the growing season.
- Near the end of the season, terminate irrigation based on plant growth stage as recommended by local Land Grant University personnel and allow the field to “dry down” prior to harvest.
- Comply with the requirements of the NRCS Conservation Practice Standard Irrigation Water Management (Code 449) and your site-specific Irrigation Water Management Plan.



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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, acquire an irrigation water management plan meeting NRCS Conservation Practice Standard Irrigation Water Management (Code 449) requirements.
- During implementation, record irrigation data such as location, date, duration, and flow rate of all irrigation operations, rainfall, evapotranspiration, and water level data.
- During implementation, utilize dated digital photography to document “dry down” conditions. Each photo should indicate the location and field where the photo was taken.
- After implementation, make the following items available for review by NRCS to verify implementation of the enhancement:
 - Irrigation water management plan and records kept.
 - Dated digital photography used to document “dry down” conditions.

NRCS will:

- Prior to implementation, provide and explain NRCS Conservation Practice Standard Irrigation Water Management (Code 449) as it relates to implementing this enhancement
- During Implementation, provide additional technical assistance to the participant as requested.
- After implementation, verify implementation of the irrigation water management plan, by reviewing records kept during enhancement implementation.

Design Approvals & Acknowledgements:

Design Approval	Date	Job Approval Authority
Designed by:		
Approved by:		

Client's Acknowledgement Statement:

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

Client's Signature	Date

Certification Documentation:

	Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
	Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
	Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)	

Certification Statement:

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

Field Level Certification – For multiple applications of this design.				
Land Unit/ Contract Item Number	Date	Unit(s)	Amount Installed	Certifier