United States Department of Agriculture
Natural Resources Conservation Service 2013 Ranking Period 1

Water Quantity Enhancement Activity – WQT08 – Decrease irrigation water quantity or conversion to non-irrigated crop production

Enhancement Description
This enhancement consists of reducing the total quantity of irrigation water used to produce crops and forages or the conversion of land to non-irrigated production.

Land Use Applicability
Cropland, Pastureland

Benefits
In areas where ground water or surface water supplies are limited, the reduction of irrigation water used or the conversion of irrigated cropland or pasture to non-irrigated (dry) cropland, non-irrigated pasture or range land, has the immediate benefit of conserving a scarce resource. Where irrigation water is pumped, elimination of pumping will also reduce energy usage and improve air quality if internal combustion engines were used for pumping on the farm.

Conditions Where Enhancement Applies
This enhancement only applies to crop or pasture land uses where there is acreage that has been irrigated a minimum of 2 years out of the last 5 years.

Criteria
1. The water that would have been used for irrigating land where this enhancement is implemented cannot be used to irrigate other acreage on the farm or the water rights sold to another landowner.
2. The land must:
   a. Receive a reduced quantity of irrigation water due to rotational adjustments, and/or
   b. Be converted to growing crops, pasture species or other vegetation that can be expected to survive under the normally expected rainfall regime.
3. Regardless of the type of vegetation grown on the land after removal of irrigation or reduction of water application, invasive species must be managed.
4. Conversion to dryland production or the reduction of irrigation application must include the necessary changes in management of the land to improve the success of the change, such as, changes to drought tolerant crops or cultivars, changed crop rotations and installation of moisture capturing practices (i.e., mulch tillage, no-till, reduced tillage, chemical weed control versus conventional tillage, herbaceous wind barriers, trap strips, strip cropping, etc.),and practices to maintain erosion at or below soil loss tolerance (T).
5. A flow meter must be installed to measure quantities of water used. Open channel systems may utilize irrigation district measurements to determine quantities of water used.
   Note: Ditch riders meet the intent of this criterion.
6. The total cumulative quantity of irrigation water must be reduced by 25% and maintained at

25% or more over the rotation (i.e., from the initiation of the reduction to the end of the agreement with NRCS).

Adoption Requirements

This enhancement has been adopted when the cumulative irrigation water quantity has been decreased by 25% as compared to the previous 5 years.

Documentation Requirements

1. A map showing areas of quantity reduction or conversion to non-irrigated land,
2. Documentation of the amount of water used for irrigation in the previous 2 to 5 years (use the maximum number of years possible),
3. Flow meter measurements for each crop for the entire rotation,
4. Record of crop rotation and species (cultivars) planted,
5. Records that show cumulative reduction in irrigation water application for rotation,
6. Documentation recording implementation of required management practices, and
7. Documentation that water saved was not used on other part of the operation or sold to another landowner.

References

Amosson, S.H., L.K. Almas, F. Bretz, D. Gaskins, B. Guerrero, D. Jones, T. Marek, L. New and N. Simpson. 2006. Water Management Strategies for Reducing Irrigation Demands in Region. Prepared for Agricultural Sub-Committee, Panhandle Water Planning Group.
http://www.twdb.state.tx.us/rwpg/2006_RWP/RegionA/Appendices/Appendix%20Q.pdf

Cropping Options for Limited Water Supplies in Northeast Colorado, 2003