

Prepared for: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Farm: \_\_\_\_\_ Tract: \_\_\_\_\_ Date: \_\_\_\_\_



### DEFINITION

Establishing a system of crop rows on planned grades, directions and lengths for erosion control and water management.

### PURPOSE

Establish crop rows in direction, grade and length to:

- Provide adequate drainage.
- Reduce erosion.
- Permit optimum use of rainfall and irrigation water.

### CONDITIONS WHERE PRACTICE APPLIES

Proper row arrangement is applicable:

- As part of a surface drainage system for a field where the rows are planned to carry runoff to main or lateral drains.
- To facilitate optimum use of water in graded furrow irrigation systems.
- In dryland areas where it is necessary to control the grade of rows to more fully utilize available rainfall.
- On sloping land where control of the length, grade and direction of the rows can help reduce soil erosion, as a stand-alone practice or in conjunction with other conservation practices.

### CRITERIA

Row arrangement shall accommodate the type and size of farm equipment to be used in the field.

As part of an erosion control and/or water conservation system for a field, row arrangement will:

- Conform to the particular Conservation Practice Standard for the area (such as 449, Irrigation Water Management) for which row arrangement is a facilitating measure.
- Conform to the grade and length requirements for Conservation Practice Standard 600, Terrace if the arrangement is used without another engineering practice.

### CONSIDERATIONS

When planning this practice as part of the Resource Management System for a field, the following considerations should be made for water quantity and quality, as applicable:

- Effects upon components of the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, deep percolation and ground water recharge.
- Effects of snow catch and snowmelt on water budget components.
- The potential for a change in plant growth and transpiration due to changes in the volume of soil water.
- Effects on downstream flows and aquifers that would affect other water uses and users. (Examples would be nutrients and pesticides on surface and ground water.)
- Effects on the volume of downstream flow to prohibit undesirable environmental, social or economic effects, such as, effects on wetlands or water-related wildlife habitats.

### OPERATION AND MAINTENANCE

Perform all tillage and planting operations parallel to contour baselines or terraces, diversions, or contour buffer strip boundaries where these practices are used, provided the applicable row grade criteria are met.

Additional Operation and Maintenance requirements specific to this Plan:

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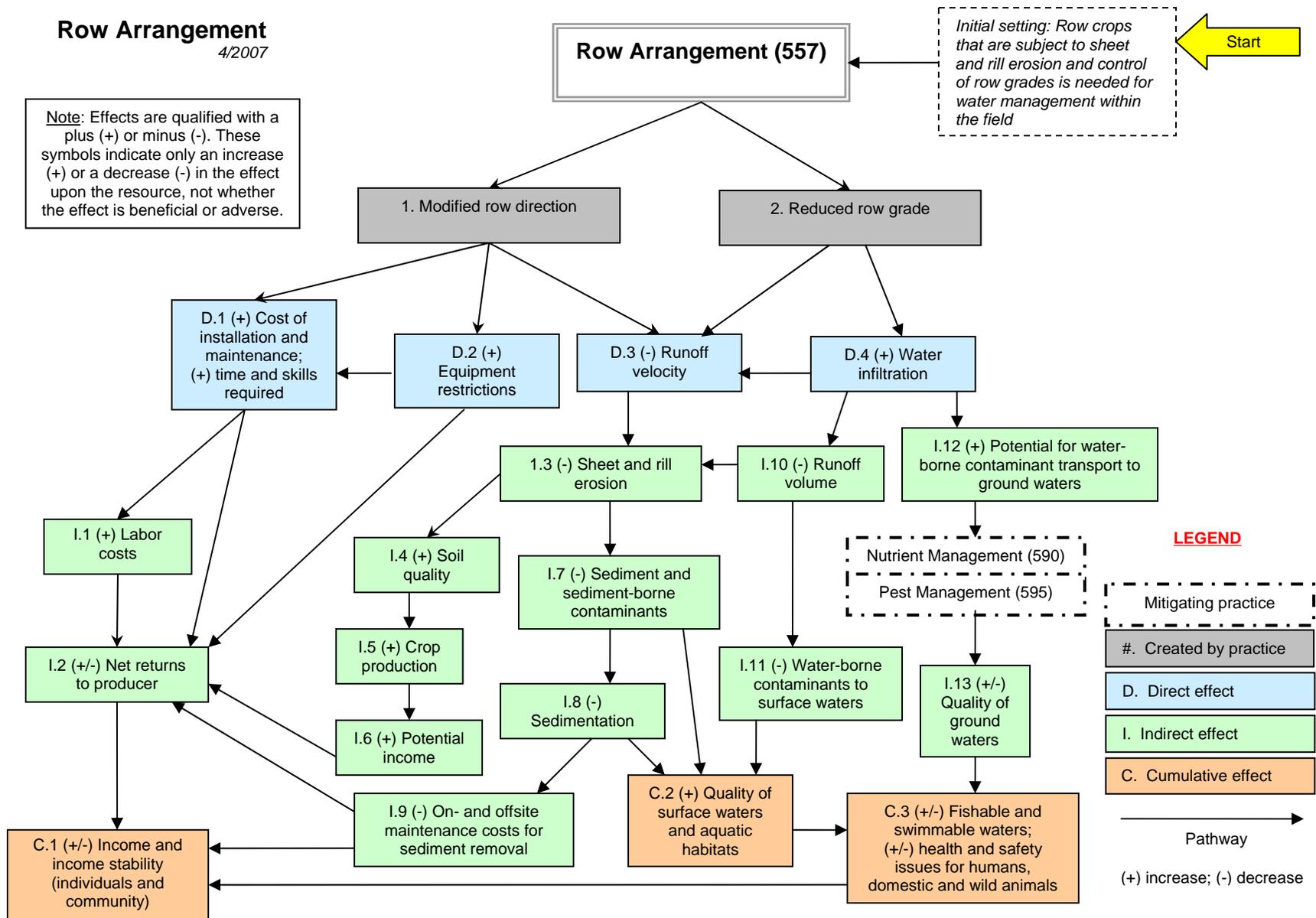


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# Row Arrangement

4/2007

**Note:** Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.



The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.