

## Irrigation Water Management - Definitions for Irrigation System Types

**SPRINKLER** - Stationary or periodic move systems

- **Big Gun or Boom** - High volume sprinkler heads in place
- **Hand Line or Wheel Line** - Linear systems that are moved periodically
- **Solid Set (above canopy)** - Stationary set system
- **Solid Set (below canopy)** - Stationary set system

**CENTER PIVOT** - Continuous, self move systems

**Generic** - Does not meet a special category listed below

### **LEPA - Low Energy Precision Application**

- a) Farmed in Circular Rows (except Linear Move Systems)
- b) Nozzle Height is no more than 18 inches above soil surface
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through a drag sock or hose on the ground, or through a bubble shield or pad
- e) Only applicable to crops planted with furrows or beds
- f) Maximum of 1% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

### **LESA - Low Elevation Spray Application**

- a) Farmed in any row direction
- b) Nozzle Height is no more than 18 inches above soil surface
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through spray nozzles
- e) Applicable on crops flat planted, drilled, or planted with furrows or beds
- f) Maximum of 3% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

### **LPIC - Low Pressure In Canopy**

- a) Farmed in any row direction
- b) Nozzle Height is 18 inches to 36 inches above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is in the crop canopy
- e) Maximum of 3% slope in most of field

f) Systems that utilize bubble nozzles or drag hoses for a portion of the crop year and spray nozzles for a portion of the crop year but do not meet all LEPA criteria should be considered LPIC systems

**MESA - Mid Elevation Spray Application**

- a) Farmed in any row direction
- b) Nozzle Height is more than 36 inches (3 feet) and less than 84 inches (7 feet) above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is above the crop canopy
- e) Maximum of 3% slope in most of field

**Variable-Rate Irrigation (VRI)**, also called site-specific irrigation or precision irrigation, is a relatively new concept in agriculture. Variable-rate irrigation is a tool of Precision Farming that involves the delivery of irrigation water in optimum amounts over an entire field. This system relies heavily on automation with computer control of the pivot movement and pivot angle. The controller cycles air valves to set application rates considering such factors as soil, plant, fertility, and topography.

**LATERAL MOVE** - Continuous, self move system in straight line rather than circular (see center pivot for definitions)

**MICRO** - Low GPM drip or sprinkle systems

- **Point source** - Drip emitters on the surface
- **Sprays** - Low pressure mini-sprinklers
- **Continuous tape** - Discharge measured per foot of tape
- **Subsurface drip irrigation** - Subsurface emitters

**SUBIRRIGATION** - Subsurface system to control the **water table** and effectively supply water to the plants