

**OPERATION AND MAINTENANCE PLAN  
FOR  
IRRIGATION SYSTEM – MICROIRRIGATION**

**Code 441**

Landowner/user:  Date:

Address:

A properly operated and maintained microirrigation system is an asset to the farm. This irrigation system was designed and installed to efficiently apply irrigation water directly to the root zone of the plants to maintain soil moisture without excessive water loss, erosion, reduction in water quality or salt accumulation. The estimated life span of this installation is at least 15 years. The life of this installation can be assured and usually increased by developing and carrying out a good operation and maintenance program.

This practice will require you to perform periodic operation to maintain satisfactory performance. Here are some recommendations to help you develop a good operation and maintenance program:

**Special Operation and Maintenance Requirements for the System**

- Only operate the system when needed to furnish water for plant growth, salt management or to store moisture within the rooting depth of the plant. Monitor crops regularly noting areas of moisture stress and repair or adjust system operation as needed.
- Operate the system at the pressure, discharge rate, speed, duration and frequency as designed and specified in the Irrigation Water Management Plan.
- Check to ensure all valves and air vents are set at the proper operating condition so they may provide protection to the system. Remove foreign materials and vegetation that can interfere with proper valve operation.
- Periodically examine each emitter/spray head, etc., for proper operation. Clean plugged nozzles, and replace if defective and worn.
- Check to make sure that all connections are watertight and all valves are working properly. Promptly repair all leaks in delivery facilities, by replacing valves, fittings, gaskets, worn or damaged parts.
- Place appurtenances in an area where they will not be damaged, but are secure.
- Maintain all pumps, agitators, piping, valves and other electrical and mechanical equipment in good operating condition following the manufacturer's recommendations.
- Maintain all screens, filters, valves, timers and other electrical and mechanical equipment in good operating condition following manufacturer's recommendations.

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- Eradicate or otherwise remove all rodents and/or burrowing animals that have or can potentially damage any part of the pump, delivery or application facilities. Immediately repair any damage caused by their activity.
- Immediately repair any vandalism, vehicular or livestock damage. Do not allow livestock near equipment during operation.
- Limit traffic over buried pipelines to designated sections designed for traffic loads (30 inches of cover).
- Maintain design depth of cover and vegetation over any buried pipeline. Periodic mowing may be needed to control vegetation.

**Hydraulic Operations of the Microirrigation System**

- Drain the system and components in areas subject to freezing. This can be done by gravity flow through drains if applicable to your installed system or have the buried system pumped out or “blown out” at the end of each irrigation season.
- Water flow meters shall be kept in working order and checked frequently. By observing the flow meter, it is possible to determine the existence of leaks (an increase in flow) and/or plugged emitters (a decrease in flow).
- Pressure gauges shall be kept in working order and checked frequently. Pressures should be maintained at design pressure (within 1 PSI) to achieve a high level of uniformity within the system.
- Check and assure proper operation of backflow prevention devices.

**Specific Recommendations for your Microirrigation System**

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