Winter Maintenance of Sprinkler Irrigation Systems

Howard Neibling, Extension Water Management Engineer
University of Idaho Cooperative Extension System

Water stress due to system breakdown during peak water use periods can cause significant reduction in crop yield and quality as well as great personal stress. A good winter maintenance program will help avoid these problems and assure water delivery when needed. Because of the design of sprinkler systems, even a very short “down time” in mid-season can cause excessive crop water stress. This is even truer for center pivots than for hand lines, wheel lines or solid set systems. Problems are also worse on sandy or shallow soils.

Center pivot systems: Preventative maintenance will improve system reliability. Items to check include:

- Park with lateral directly downwind of the pivot point during prevailing wind direction
- Gearboxes: drain off accumulated water and top off with the proper lubricant
- U-joints: check for wear and repair or replace
- Pivot point: grease, check control tabs, alignment and general condition
- Alignment switches: check for secure mounting and electrical connection and good switch action
- Tires: check air pressure and tire integrity
- Overall: check for loose wires, nuts and bolts
- Pressure regulators and nozzle mounts: adjust mounting so regulator is vertical (better water distribution) and check for broken or debris-clogged mounts

Set-move (hand line, wheel line) and solid set sprinkler systems:

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