

CASE STUDY

CERTA-SET® PVC SPRINKLER SYSTEM OUTPERFORMS ALUMINUM IN DISTRIBUTION UNIFORMITY TEST

When Grimmway Farms, a prominent California vegetable grower, commissioned a test of the Certa-Set 3-inch Lateral PVC Agricultural Irrigation System by Westlake Pipe & Fittings, it sought to improve a process critical to helping its Dellis Ranch carrot farm achieve the highest level of plant quality, yield and water usage efficiency.

CHALLENGE

Distribution uniformity (DU) measures how evenly water soaks into the ground across a field. If six inches of water soaks into the ground in one part of a field, ideally the same level should soak into another part. Low distribution uniformity, where irrigation amounts vary, often results in a decreased yield while forcing farmers to increase irrigation in some areas.



APPLICATION

In tests conducted by the National Resources Conservation Service, a division of the U.S. Department of Agriculture, the Certa-Set 3-inch Lateral PVC demonstrated a DU of 84 percent, outperforming aluminum solid set lateral sprinkler systems with a typical DU of about 70 percent.

“The results prove Certa-Set’s high-performance capabilities in providing uniform water distribution in solid set sprinkler irrigation,” says Josh Clapper, director of PMMD (Product Management, Marketing and Development) for Westlake Pipe & Fittings. “With Certa-Set’s high DU, growers are able to lower their water consumption, which is good for the environment and their bottom line.”

Also contributing to Certa-Set’s high DU were Nelson Irrigation check valve and pressure regulators which allowed the sprinkler system to operate at 60 pounds per square inch.

SOLUTION

Certa-Set provides growers a highly efficient, leak-free solution compared to traditional aluminum irrigation products. With its dual-gasket coupling system, Certa-Set saves money with higher uniform water distribution while eliminating “water puddling” commonly found in aluminum piping systems.

Manufactured as an impact, corrosion-resistant above-ground portable irrigation piping system, Certa-Set laterals and couplings are impervious to sunlight, electrolysis, chemicals and fertilizers. The design allows for easy use in agricultural irrigation, including row crop and turf grass applications while working particularly well in drag, mechanical move and side-shift operations.

Since its study and adoption of the Certa-Set system, Grimmway Farms has significantly reduced its water usage at Dellis Ranch.

Project Type:
Agricultural Irrigation

Application:
Irrigation System

Crop:
Carrots

Owner:
Grimmway Farms

Product Used:
Certa-Set® PVC Irrigation
System

Grower:
Grimmway Farms