Application:
Agricultural Irrigation

Project Type:
Irrigation System

Crop:
Strawberries

Owner:
Driscoll Strawberries Associates

Product Used:
Certa-Set® and Certa-Lok® PVC Irrigation Pipe

Grower:
Driscoll Strawberries

AIM GOLDEN RETRIEVER STREAMLINES POST-HARVEST IRRIGATION PIPE RETRIEVAL FOR DRISCOLL STRAWBERRIES

At the Driscoll Strawberries nursery in McArthur, California, workers spend a week or more every year completing the time-consuming, post-harvest process of manually breaking up irrigation pipe and loading it onto trucks. Pipe typically is laid out in quarter-mile stretches and at times can be seen scattered over 50 acres of fields.

CHALLENGE

Retrieving pipe by hand is a time-intensive, costly process for a farming operation. Plus, the manual process often leads to broken risers and sleds. While mechanical installation and retrieval of irrigation mainline and lateral pipe increases efficiency and decreases labor costs, managers of farming operations often express concerns over the ability of workers to transition to the new process.

APPLICATION

The Driscoll nursery turned to Ag Industrial Manufacturing's (AIM) Golden Retriever, engineered for use with Certa-Set® and Certa-Lok® PVC irrigation pipe from NAPCO, to provide quick mechanical installation and retrieval of both irrigation mainline and lateral pipe.

AIM Vice President Paul Burkner, who conducted the Golden Retriever training, noticed an immediate positive reaction from his trainees.

"The crew at Driscoll picked up on it right away," Burkner recalls. "They saw the benefits of the Golden Retriever and were up and running very quickly."

SOLUTION

Utilizing a standard tractor's three-point hitch and remote hydraulic system, AIM's Golden Retriever can handle 3 – 12-inch diameter pipe in 20 – 40-foot lengths. It also can pull lateral irrigation pipe from the field with risers still in place.

NAPCO
PIPE & FITTINGS

AGRICULTURAL IRRIATION

CASE STUDY

Workers begin by feeding pipe into the machine, which is lined by four sets of angled, hydraulically powered tires on each side. The tires propel the pipe like mechanical rollers in both installation and retrieval applications.

To simplify disassembling Certa-Set and Certa-Lok, which are connected by spline-locked couplings, one crewmember is assigned the task of spline removal. Each time a pipe coupling reaches this designated crewmember, he or she stops the machine, pulls the spline out of the coupling, and then places the machine back in gear. The power of the wheels returning to motion ejects the loosened end pipe section onto a trailer.

“Each coupler joint features an O-ring which provides the hydraulic seal,” Burkner explains. “You’ll need enough pulling force to release it and separate the pipe from the coupler. The Golden Retriever does this with little effort.”

Using AIM’s Golden Retriever, Driscoll Strawberries was able to cut its pipe retrieval crew in half.

“We’re very happy with the Certa-Set irrigation pipe,” said Robert Holscher, high-elevation nursery manager for Driscoll. “I’ve heard some experienced nursery managers say it’s one of the most important innovations to happen in the strawberry nursery industry in the past 30 years.”

He adds, “What impresses me most about the Certa-Set pipe is that, unlike aluminum pipe, the Certa-Set holds water all the time. Even when the system is down, the pipes stay charged. We’ve had excellent feedback.”

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