

Drip irrigation proves to be a water saver

By HEATHER SMITH THOMAS
For the Capital Press

New technology in irrigation systems delivers the exact amount of water needed by each plant.

Kasey Garrett, owner of Aqui-Irrigation in Parma, Idaho, installs drip systems on farms in his area, and 2016 will be his sixth season in the drip market.

"Our business is focused mainly around onion growers, hop growers and tree farms," he said. This is the best way to irrigate some types of crops.

"In California where there's a major water shortage and cost of water per acre is much higher than ours, drip irrigation is even more beneficial. Our cost for water is relatively low, so saving water is not one



Courtesy photo

Kasey Garrett, owner of Aqui-Irrigation in Parma, Idaho, installs drip systems like this one for farms in his area.

of the driving forces for drip irrigation in our valley," Garrett said.

"The main thing we capitalize on with drip, especially for onions and hops, is the ability to grow those crops in fields and

soils you would not normally be able to use — such as sandy soils or fields with slopes."

Drip irrigation also gives growers the ability to control a crop more intensely.

"With onions, for instance,

farmers can irrigate a 20-acre block all at once, then turn the water off so the whole field dries out at the same time, so they can go in with machinery for tillage or to spray. Onions and hops both require very intense management," Garrett said.

"With flood irrigating or furrows, it's a major process to get back into that field and spray for insects. Also, there's more uniformity of water delivery with drip. You get the exact same production anywhere in the field. With flood irrigation, maybe the bottom 5 to 10 percent of the field won't get as much water and has poorer plants, or the top 5 to 10 percent might have less desirable crop. With drip, every onion or hop plant in that field gets the same amount of water," he said.

At harvest, the onions are uniform instead of six different sizes, he said.

Growers can put fertilizer and any other treatments through the drip tapes, which delivers the product at the root zone.

"This makes for 20 to 40 percent less inputs with drip versus furrow irrigation. This helps the grower, but also the environment. There is less leaching of chemicals into the ground water because there's no runoff. There are areas here and in Eastern Oregon that have had issues with nitrate leaching, and drip irrigation virtually eliminates that problem," Garrett said.

Drip irrigation has been around awhile in dry areas, such as California and the Middle East, as a way to conserve water.

"Here in the Treasure Valley it's probably been used in onion crops for only 15 years. There are 20,000 acres of onions grown here, and 60 percent or

more are now under drip," he said.

Drip systems are portable for onions — a rotational crop moved from field to field every year.

"The drip tape we put into the field is a thin-walled disposable product the farmer pulls up at the end of the season. It can be rolled up and discarded or sent to be recycled," he said. "The pump station and filter stations are all portable units, built on a car trailer. Those can be set at the corner of the field, and then moved from field to field — wherever the onions will be growing the next year."

In hops or tree fruit crops, everything is permanent.

"We pour concrete pads for the filter stations to sit on and bury PVC pipe out to the field, then disperse the water out to the zones. In a hop field we use a tube, whereas in onions we use a drip tape. The hop tube can be re-used year after year, often getting 20 years' service from that product. This tubing can be rolled up out of the way of machinery for cultivation, and then rolled back out."

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