

NETAFIM DRIP IRRIGATION SUCCESS STORY

ALFALFA

SETH ROSSOW



DOING MORE WITH LESS & INCREASING YIELDS

With an eye towards efficiency and cost savings, a young farm manager uses drip irrigation as a means to irrigate alfalfa more effectively. “My primary goal for shifting to a Netafim drip irrigation system was to become more efficient with our resources, and ultimately more profitable,” says Seth Rossow, who has been farm manager for Bert Wilgenberg Farms for the last five years. The alfalfa operation, just south of Merced, CA, provides feed for a dairy near Hanford, CA.

“Since we started using drip irrigation in our alfalfa, we have seen an 18% increase in production,” Rossow says. “We believe in the science behind this technology, and we believe in the philosophy of being more efficient with our resources. As you begin to use a new production method, such as drip irrigation, you find your weakest links in the beginning years, and then start adapting to maximize production potential.”

According to Rossow, the increased water delivery efficiency and more targeted use in the plant root zone offered significantly higher yield potential; however, taking advantage of that potential meant bringing other production parameters to the same level. “We now have a higher yield potential, but the available nutrients in our soil didn’t necessarily meet that demand, so now we’re adjusting our fertility program,” he says.

Rossow is just beginning his third year of growing alfalfa with Netafim drip irrigation, and recommends that others who consider the technology, also evaluate other management changes needed when water delivery no longer becomes a yield-limiting factor. “I believe we have an opportunity to greatly increase our initial 18 percent yield increase to an even higher level once we address the new limiting factors that have become apparent,” adds Rossow.

Rossow applies fertilizer through the driplines as it allows for a very efficient means of delivery. He explains: “People often think of driplines as just a different style of irrigation, but the biggest advantage is the ability to spoon all of your nutrients at key intervals because you are irrigating so frequently.”

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Initially, Rossow placed the driplines approximately 14 to 16 inches deep to avoid gopher damage. “We quickly found that the gophers will find the dripline no matter how deep you place it, so our strategy changed to placing it where it is easier to fix and at a better depth to wet the main root zone,” he explains.

Rossow takes a very holistic approach to his farm management. Since he has access to compost from the dairy operation in Hanford, he uses that resource as much as possible. “The compost keeps our fertilization costs cheaper, and I have a lot more biological activity from earthworms. We apply the compost in the fall, and allow the rain to work it in,” says Rossow. “The worm activity is essentially

free tillage that’s good for the environment and it helps the water move more uniformly between the driplines. I’ve noticed a significant difference in using the compost and we will continue doing that in the coming years.”

Rossow’s system is designed around a buried mainline, with pressure regulators feeding into a submain line. He says, “I’m using 7/8” diameter dripline and have an emitter every 14 inches. I can’t change the spacing of the emitters, but I can change the pressure rate or my run time, or even both aspects, to get the amount of water the alfalfa needs.”

Rossow encourages anyone considering drip irrigation, especially in crops where it hasn’t been widely utilized like alfalfa, to talk to a fellow grower who has already tried it. “There is nothing like talking to a farmer who has incorporated a new technology, and talking to another one who is thinking about doing the same thing, because they ask each other a different set of questions according to their strengths or weaknesses,” he says.