

## NETAFIM DRIP IRRIGATION SUCCESS STORY CROP ROTATION

## **ROTATING CROPS WITH DRIP IRRIGATION IS EASY**

From a small conference table at his office in Dixon, California, Rick Martinez looks proudly through an open door, past the gravel driveway at the horizon ahead. The scene is a perfectly green, uniform and healthy stand of alfalfa being grown on drip irrigation. His enthusiasm and passion for farming are undeniable - along with an ongoing, student-like curiosity about what he can do to make his business more efficient and economical. Among his strategies is the switch and investment in drip irrigation, a testament to his adoption of the technology long before other farmers in the area.



"I'll be the first to admit that drip presents a learning curve - especially when you start to rotate crops," says Martinez. You've got to be willing to think outside the box and see the benefits of drip over the long term."

Today, Martinez and his business partner Mark Boone's 4,000 acre operation consists of more than 1,000 acres on drip irrigation - a mixture of processing tomatoes, corn, alfalfa and sunflowers. Given the nature of soil born diseases and fluctuating crop prices, the need for rotation is apparent, but as Martinez puts it, rotating with drip irrigation has historically been unknown.

"People are finding that rotating with drip irrigation is a lot easier than you think," says Martinez. "And when you look at the yield increases for each crop with the investment you've already made on your field, you learn really quickly this is the way to go."

Martinez, whose drip systems are installed with 60-inch row spacing and a 12-inch depth, maintains that farmers can get a lot of things to grow on drip if they make the right adjustments for each crop. Among the most important factors to consider is pre-irrigation for the appropriate emergence; whether you start a crop on sprinklers or lengthen the initial irrigation period using the drip system, getting a healthy stand is key.

"You also need to consider the residues from the previous crop along with making sure that your equipment isn't compressing the soil and damaging the drip tape," notes Martinez. "But also keep in mind that with drip long term, you're guaranteed to be in the field a lot less - no surface water means that weed pressure is reduced and fertilizer applications are handled through the drip system."



## **CROP ROTATION**

Aside from the reduction of equipment usage, Martinez boasts a laundry list of benefits about drip, no matter what the crop:

- Yield increases: on average, Martinez notes a 20-30% per acre yield increase depending on the crop
- Disease control: in alfalfa, a sizeable decrease in stem nematodes
- Even distribution: crops are watered equally across the field, diminishing low/high spots, especially at the ends of rows
- Shortened reentry: equipment and crews can access the field much faster, especially for harvest most notably alfalfa fields where certain sections can suffer while waiting without flood irrigation
- Reduction in heat stress: given the nature of drip irrigation's controlled environment, plants are less susceptible to long wait times for needed water
- Weed control: with no surface water present, weed problems are greatly reduced with drip irrigation
- Less labor: no furrowing, no ditches, no valves to turn on or off at odd hours of the night; Martinez can place one foreman in charge of managing up to 500 acres of irrigation
- Drainage: drip helps maintain soil nutrient levels by limiting the drainage that's typical with flood irrigation especially in corn and alfalfa
- Topsoil loss: with less equipment and no surface drainage needed in the field, viable topsoil is worked up less often and stays intact
- Better for the environment and your wallet: with less equipment usage, tractors make less of an impact on air quality and money is saved on fuel and wear and tear

While drip has been the choice several years running for crops like processing tomatoes, cotton and corn, its recent emergence into alfalfa has shown impressive yield results, something Martinez has experienced firsthand as he's rotated from processing tomatoes to alfalfa and vice-versa.

"The alfalfa has done really well on drip through the crop rotations," says Martinez. "We still need to utilize flood irrigation from time to time for rodent [gopher] control, but the rotation to alfalfa is more than worth the occasional need for flood."

As a pioneer of drip irrigation usage in his farming region, Martinez has worked closely with Netafim over the years to help spread the word about the benefits of drip.

"I'm a businessman and I believe in profits, so I do my homework on investments like drip irrigation," says Martinez. "Not only does a Netafim system perform as it should, the company really sees the overall big picture of making a difference for farmers. They're here to support us and want us to be profitable."



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