

TORO

Count on it.

Grower Solutions

Romaine Lettuce Grower Prefers Drip to Sprinklers

Craig Andrus Farms, Salinas, CA

Benefits of Drip on Lettuce:

- Increased crop yields
- Increased crop uniformity
- Excellent wetting patterns with closely spaced emitters.
- Improved crop quality (soft, pliable leaves vs. hard, rubbery leaves) as a result of perfect growing conditions.
- Reduced runoff and deep percolation of water and fertilizers.
- Reduced weed germination and control costs.
- Reduced cultivation costs
- Reduced pumping costs
- Reduced mildew and spray costs.
- Ability to irrigate immediately within one day of harvest.
- Improved benefit from fertigation vs. sprinkler sidedress application.



Craig Andrus is no stranger to sprinklers, but has been using drip on his 400 acres of romaine lettuce southeast of Salinas for over four years now. He used to have a linear, but when it came time to replace it, he noticed the trend towards drip and made the change. "I currently sprinkle the crop up with hand move aluminum pipe, thin, and then lay out the drip tape. But I'm working towards germinating with drip in the future so I can eliminate the sprinklers altogether."

My yields are higher, the crop is more uniform, and the quality is better because of perfect growing conditions."

Andrus explains that drip irrigation has provided many benefits to his operation. First, no water or fertilizer is wasted down the furrows or to percolation beyond the rootzone, which can be significant in sandy soils. In addition, drip easily saves two mildew sprays, which is worth about \$150 per acre. Fewer weeds germinate, and cultivation costs are slashed because compaction from sprinkler irrigation is reduced. "I used to cultivate 3-4 times with sprinklers, but only cultivate once now with drip, right after thinning. This saves me another \$60 per acre and reduces fuel usage. Since drip operates at much lower pressures than sprinklers, pumping costs have been significantly reduced as well." Fertilizer is spoon fed in three injections per season compared to one sidedress application with sprinkler irrigation. "This way, I get more benefit from each dollar spent on fertilizer - none of it leaches below the root zone."



Perhaps best of all, yield and quality are superior with drip irrigation. "My yields are higher, the crop is more uniform, and the quality is better because perfect growing conditions are achieved. The leaf is not hard or rubbery - it's soft and pliable, just the way the buyers want them. Harvest is a lot easier too. Conventional fields must dry down for 6-7 days prior to harvest, but with drip, I can irrigate within a day of harvest."

Andrus uses Toro's premium Aqua-Traxx drip tape supplied by Rain for Rent in Salinas, California. Beds are built on 80 inch centers where three lines of 8 mil, 7/8" Aqua-Traxx tape irrigate six rows of romaine lettuce. Row lengths vary from 600 to 2,100 feet long, but block sizes are typically 12 acres. Outlets are either 8 or 12 inches apart, depending on soils and field layout, and the tape is recycled after it is used. "On our sandy loam soils, this configuration creates a great wetting pattern." Rain for Rent has supplied the sand media filters, gate valves, layflat hose, connections and fittings as well. "Rain for Rent is local, and our sales representative Michael-D Sala has provided great service."

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Andrus has used many of the leading brands of drip tape, but has a preference, especially after an accidental test plot revealed significant differences. "There was a mix-up this year and one field had all three brands in the same block. The Aqua-Traxx rows clearly appeared more uniform and yielded better. Aqua-Traxx has

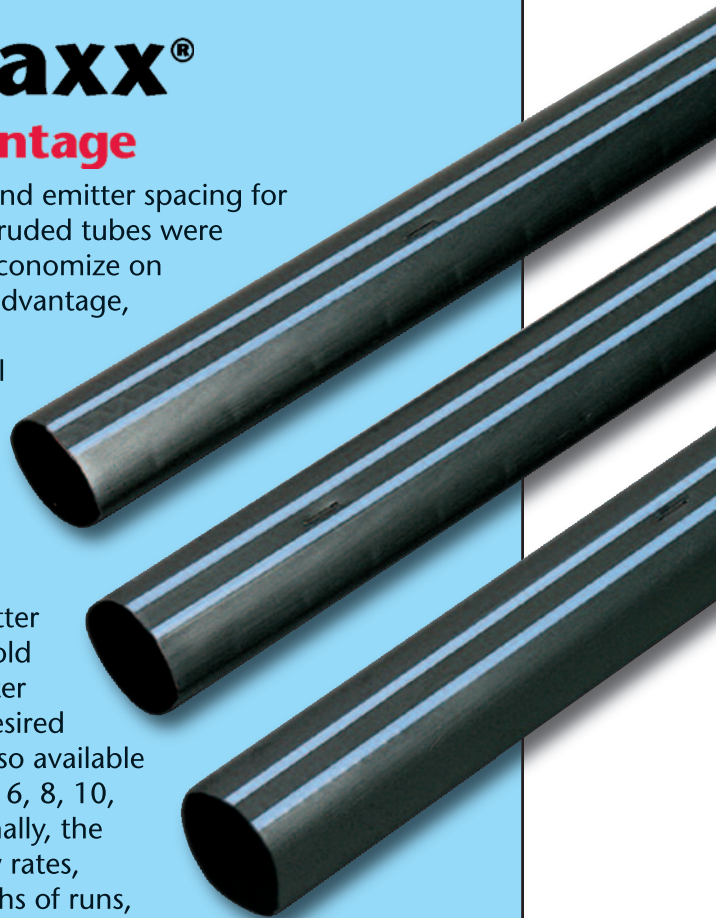
performed fantastic compared to other tapes."

Andrus has tasted the convenience of drip, and eventually would like to automate to reap further benefits. He knows that readily available valve and controller technology would further improve his operations, and together

with the elimination of sprinklers, help him reduce expenses and improve resource use. Automation initially requires management commitment, but once mastered, allows management time for the more important things. Of course, Andrus knows that when the time comes, Toro and Rain for Rent will be there to help.

Aqua-Traxx® with the **PBX Advantage**

Growers no longer need to compromise tape quality and emitter spacing for cost. In the past, high quality emitters in seamless, extruded tubes were expensive, and wider emitter spacing was chosen to economize on cost. Now, with Toro's new Aqua-Traxx with the PBX advantage, high quality emitters in seamless, extruded tubes are available at any emitter spacing without any additional cost. This is because of Toro's manufacturing breakthrough which creates a high precision, continuously molded emitter instead of individual, injection molded emitters that are more expensive. The end result is Aqua-Traxx premium drip tape with emitters that are more clog resistant and deliver water uniformly to every plant, regardless of the chosen emitter spacing. And since Aqua-Traxx premium drip tape is sold by the foot, not the emitter, growers can choose emitter spacings anywhere from 4" to 24" based upon their desired wetting pattern, not cost. In addition, Aqua-Traxx is also available in a more economical 4 mil wall thickness as well as 5, 6, 8, 10, 12 and 15 mil thicknesses for tougher applications. Finally, the emitters in Aqua-Traxx are available in a variety of flow rates, including ultra-low and ultra-high flow, to fit the lengths of runs, soil types and cultural practices found in farming operations across the globe. Don't compromise - take advantage of Aqua-Traxx with the PBX advantage today!



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