

# Root Drip Irrigation Stakes, Version 1.0

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Deep Drip Watering Stakes (<http://www.deepdrip.com/>) really impressed me. You drive them into the ground and connect drip irrigation to it. The water goes right down to the roots and evaporation is minimized. Great product but a bit expensive. I need two per tree and have 4 trees. Ah, but I also have a pile of scrap PVC and enjoy making stuff.



Here is my homemade version of the stake installed. My soil is very rocky so driving the plastic stakes into the ground is out of the question. I made the hole with a steel rod and a heavy hammer. Then pushed the stake in place.

A 1/4 inch irrigation line connects to a T. The vertical part of the T feeds a 6 inch length of 1/4 inch line that runs down inside the stake. A second line connects to the third end of the T and runs over to a second stake. Flow is regulated at a common point underground.



The stake is rough cut on my bandsaw and drilled by eye. The pointed end is heat formed using an air heat gun.

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I had a bunch of 1 foot long  $\frac{3}{4}$  inch diameter PVC pipe. It was left over from transporting 8 foot length of pipe in my Honda Fit. The Fit can take 7 foot lengths. So there I was in the Home Depot parking lot, trimming each pipe to fit inside the Fit. I knew the pile of scrap would not go to waste.



I set up a finger plate on my drill press and drilled one  $\frac{3}{16}$  inch hole near the end of the pipe and a second hole about 2 inches back.



Then I enlarged the holes to  $\frac{1}{2}$  inch. The hole closest to the end helps guide the saw cuts.



I used my horizontal bandsaw to roughly cut a slot.



Using my heat gun, I warmed the PVC until it was very soft. Then I clamped the end of the pipe in my vise and sprayed the plastic with water to cool it.





The two flats that form the tapered ends spring together nicely. I dunked them into PVC primer. Next I pried the ends open a little to let the primer flow in.



Then the end was dunked into PVC cement. I pried the ends open a second time to let the cement flow in. Then I wiped the outside with a rag to remove the excess cement.



It isn't pretty but gets the job done.

I'm not worried about forming a water tight end.



Back on the drill press, I cross drilled holes about every 2 inches.

I welcome your comments and questions.

If you wish to be contacted each time I publish an article, email me with just "Article Alias" in the subject line.

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