



How To Build An Urban Farm Company Drip Irrigation System

Our drip grids blanket the entire surface of the garden to ensure even moisture on the surface of the soil for high germination rates. There are emitters every six inches—so there are four emitters per square foot. We suggest still watering frequently by hand after seeding for a couple weeks because seeds are on the surface of the soil. Drip irrigation works especially well after plant roots are established. Irrigation systems should run every day during the growing season (3-7 minutes depending on the time of year). The irrigation uses less water than bluegrass. Even though they are watered every day, they don't need nearly as much water and our soil is designed to hold water in the soil.



Irrigation Materials (everything available online at Drip Works or Drip Depot)

___ 1/4" line with drip emitters build into the line every 6"



___ 1/2" drip feeder line



___ Connector Barbs to connect 1/4" line to 1/2" line



___ Goof plugs for 1/4" line



___ Compression end cap for 1/2" line



___ 1/2" Compression T's



___ 1/2" Compression elbow/90's



___ Stakes



___ Nelson Drip Irrigation Timer



___ Pressure Reducer (25 psi)



___ Y Connector for Spigot



___ 3/4" FHT Compression Swivel



___ Irrigation Punch





Directions

1. Be sure to lay your $\frac{1}{2}$ " line under the bed *before* adding the soil. Connect the $\frac{1}{2}$ " line to an existing irrigation line or to your spigot and run the line to the corner of the garden bed.
2. Add a 90/elbow connector and run the $\frac{1}{2}$ " drip feeder line up the inside of the bed.
3. Add another 90/elbow and run the line along the inside of the 4' side of the bed.
4. Add the compression end cap to the $\frac{1}{2}$ " line at the end of the 4' length.
5. After filling the bed with soil, add the $\frac{1}{4}$ " drip lines.
 - Use the irrigation punch to add 8 holes along the 4' feeder line, two holes per foot.
 - Cut 8 pieces of $\frac{1}{4}$ " line to the length of your garden bed
 - Add a connector barb to one end of each piece of $\frac{1}{4}$ " line
 - Insert $\frac{1}{4}$ " dripline pieces into the $\frac{1}{2}$ " line
 - Insert a goof plug in the end of each $\frac{1}{4}$ " line
 - To insert barbs, pinch the $\frac{1}{2}$ " line as you insert the barb
 - If you think there is any dirt in the line, unscrew the end cap on the $\frac{1}{2}$ " line and run the system before inserting the plugs into the $\frac{1}{4}$ " dripline to flush the system.

Drip Irrigation Connected to Spigot with Y, Timer, Pressure Reducer

- Put the batteries in the timer and program it to the correct settings.
 - 3 minutes twice per day April-May or 5 minutes once per day
 - 7-10 minutes once per day in June and July
 - 7 minutes once per day in August
 - 5 minutes once per day in October
- Connect the Y to the spigot first, followed by the timer, then the pressure reducer. The pressure reducer will indicate which way the flow is supposed to move through the fitting.
- Push the $\frac{1}{2}$ " line into the $\frac{3}{4}$ " FHT Compression Swivel, and then connect it to the bottom of the pressure reducer.

Troubleshooting

- If the spigot is too close to the ground to connect the y, timer, and pressure reducer:
 - Connect the Y to the spigot, followed by a $\frac{3}{4}$ " FHT Compression Swivel with a $\frac{1}{2}$ " line that runs to a good area to have the timer and pressure reducer. Attach a $\frac{3}{4}$ " MHT Compression, followed by the timer, pressure reducer, and $\frac{3}{4}$ " FHT Compression Swivel.
- If the drip is being connected to an existing drip irrigation line, cut existing irrigation line and use a T connector to run new $\frac{1}{2}$ " line to garden bed. Because most irrigation lines are $\frac{3}{4}$ ", you will likely have to use a reducer from $\frac{3}{4}$ " to $\frac{1}{2}$ " line. Use a Reducing T ($\frac{3}{4}$ " and $\frac{3}{4}$ " to $\frac{1}{2}$ "), or use other fittings to reduce.