

# Drip Irrigation

Water conservation, healthy and productive plants. Happy gardeners.



# More than half of Oregon & California commercial crops are under drip irrigation





# Things to try before you give up and buy a kit





More things to try before you give up

and buy a kit



## Why drip? Saves water

- Puts precise amount of water right where you need it
  - Water just the crop, not the weeds or where you walk
  - Puts water right into the root zone, eliminating evaporative loss
  - No erosion or nutrient leaching
- Automated, so water at the right time of day for highest productivity
- Prevents over/ under watering
  - Easily adjust the timer for the season or rainfall

### Why drip? Reduces time spent on your knees

- Reduces weeding by keeping soil moist only around crop
- Reduces slugs they don't want to travel across dry soil
- Foliage remains dry, thus reducing fungal, bacterial, and insect damage
- Fully automated so don't need to hand water
- Better germination because soil stays consistently moist (tomatoes like that, too).

# Why drip? Healthier plants & more food and flowers. Gardening is more fun.





A soaker hose is the ticket in our cloche.

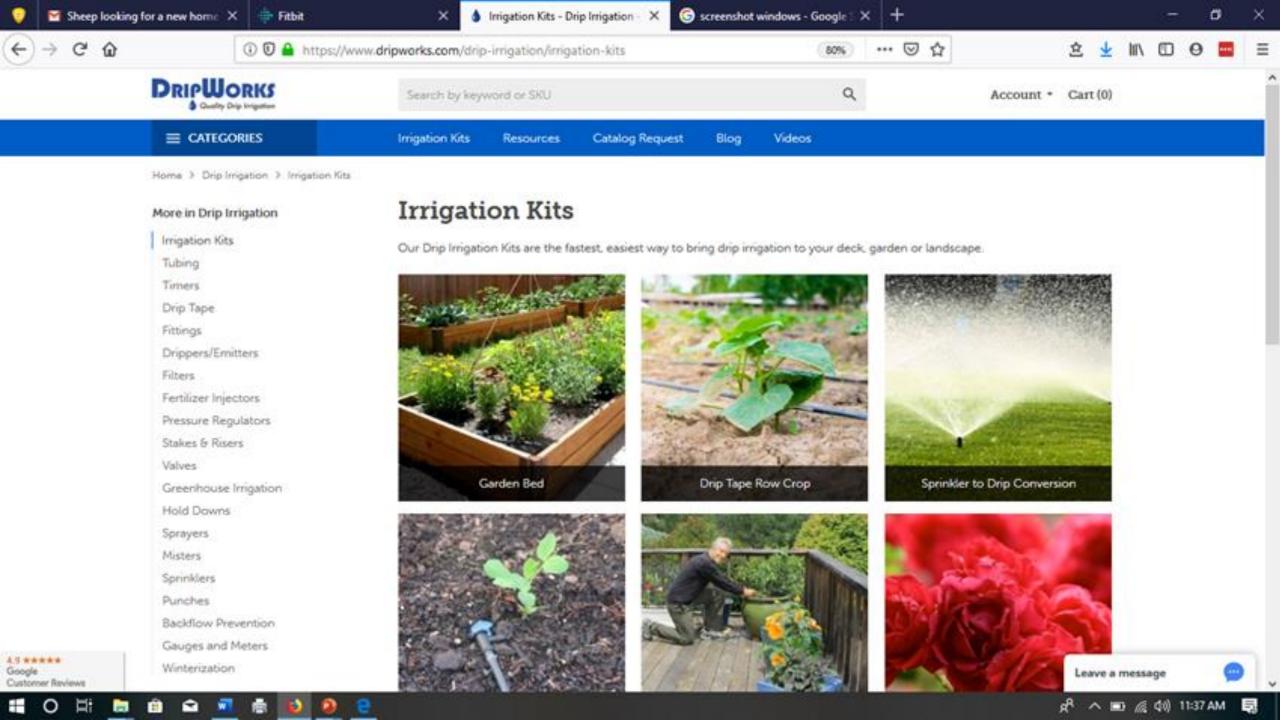




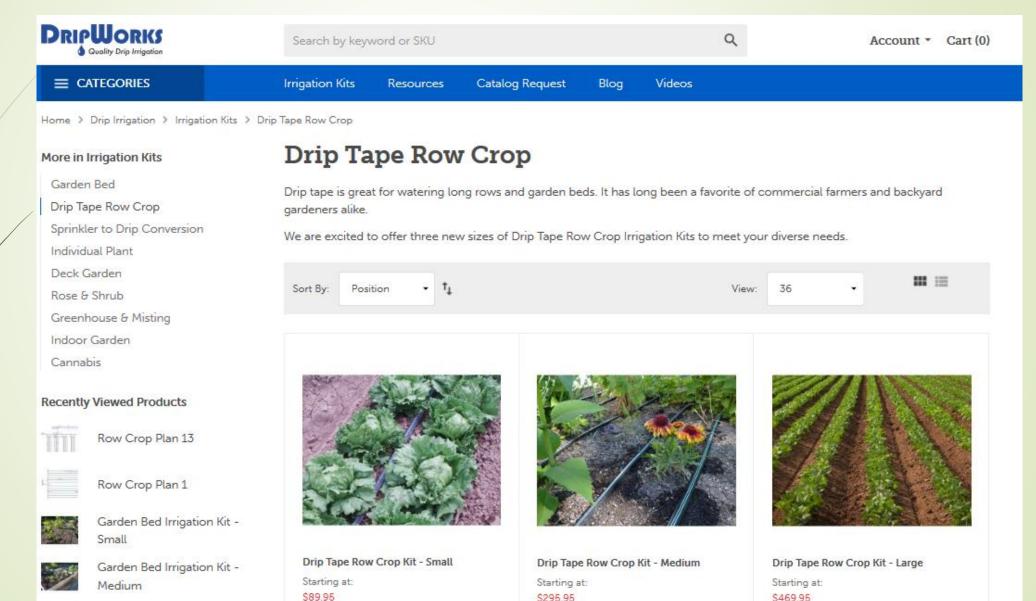
These were perfect when our orchard trees were young.







#### This is what we've used



#### Our garden

About 40' square

Soil is silt from a drained wetland

Enriched with 11 years of sheep manure and straw from cleaning the shed

In shade until about 10am

The soil is cool and wet and we can't plant until early July

We rototill the rotten straw in and then shovel the soil into berms (raised beds with no sides)

Yes, deer have been a problem



## This is what it looks like this morning



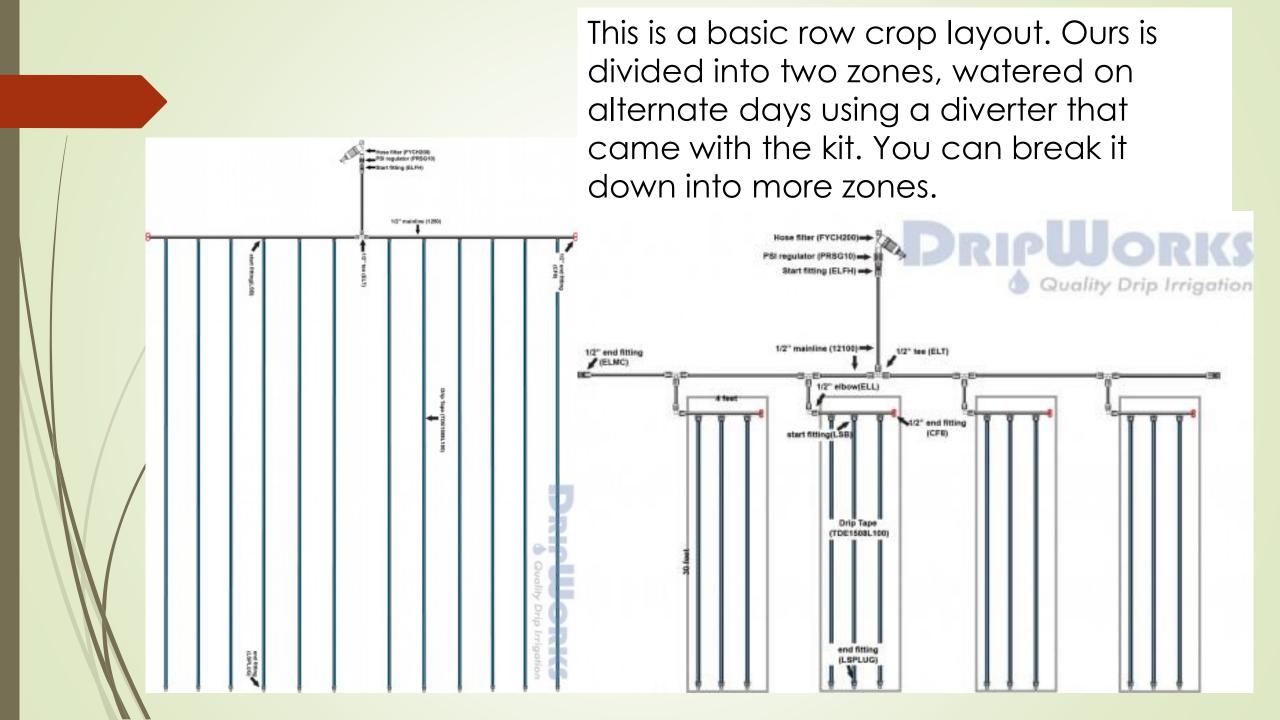


- We have a 100year-old hand-dug well and a shallow water table. Water runs out sometimes in Sept-Oct.
- Keeping the garden watered was a real challenge, usually we hand watered each plant. But last year we invested in a drip system.
- Face it, gardening is expensive. May as well be successful, too.



An edible flower packet continues to reseed and provide bee habitat on the border, no drip lines here.





The tape has little slits every 8 inches, you can plant right on the drip area if you want. Crops that need lots of water can get two rows of tape.



## The fiddly bits.







#### **Rose & Shrub Kit**

The Rose & Shrub Kit utilizes PC (Pressure-Compensating)
Shrubblers to insure even watering at all points within your drip irrigation system. Mounted on convenient stakes, these emitters are easy to install and virtually maintenance free. At 30 PSI they output 8 GPH via 8 "fingers" of water that are emitted in a 12" diameter pattern. As with all our kits, everything you need to water your roses or shrubs is included.



#### **Individual Plant Kit**

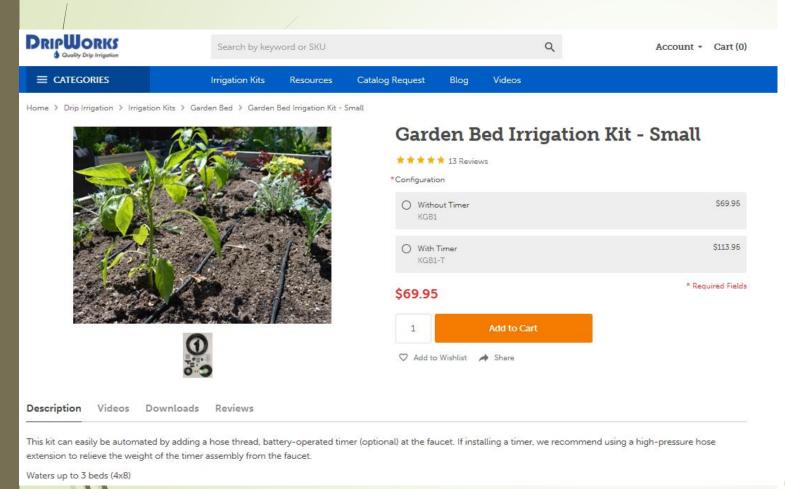
Whether you're looking to water a group of containers or individual landscape plantings, this kit will meet your needs. Using a variety of 1 GPH, 2 GPH, and 4 GPH Take-Apart-Emitters (aka "Flag Emitters"), the Individual Plant Kit will water from 60 to 240 plants, depending on which version you choose. If you have lots of individual plantings scattered about, this is the kit for you.



#### **Greenhouse Misting Kit**

Designed to cover two 4' x 10' tables, the Greenhouse Misting

#### The small raised bed kit



#### Features:

- 100' of Soaker Dripline
- Filter and PSI Regulator
- 1/4" and 1/2" Fittings
- Punch and Hold Down Stakes
- 50' of 1/2" Mainline Tubing

#### Parts List:

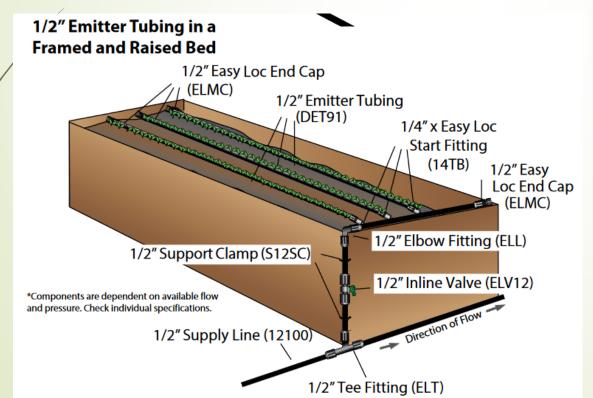
- 1 50' Roll 1/2" Mainline Tubing (1250)
- 1 50' Roll 1/4" Micro Tubing (1450)
- 1 100' Roll 1/4" Soaker Dripline, 12" Spacing, 1/2 GPH (DSD12)
- 20 1/4" Transfer Barbs 2 x 10 packs (14TB-10)
- 20 1/4" Elbow Fittings 2 x 10 packs (1490-10)
- 20 1/4" Goof Plugs 2 x 10 packs (14GP2-10)
- 1 1/2" Easy Loc Female Hose Start (ELFH)
- 1 1/2" Easy Loc Tee (ELT)
- 1 1/2" Easy Loc Coupler (ELC)
- 2 1/2" Figure 8 Ends (CF8)
- 1 Home Garden Filter (FYCH200)
- 1 30 PSI Pressure Regulator (PRSG30)
- 1 Key Punch (PUKEY)
- 20 1/4" Hold Downs 2 x 10 packs (SS3-10)
- 10 1/2" Hold Downs 1 x 10 pack (SUHD-10)

#### Optional Timer:

• 1 - Galcon Bluetooth Flip Open LCD Timer (TGNLIDBT)

#### Raised beds

- A little more set-up, but once it's done, most of it stays done for a long time.
- Watch out if you bury lines as they may slyly leak; watch out for exposed lines that get underfoot.





#### Lots of companies sell kits for raised beds. Our neighbor used Drip Works and likes it



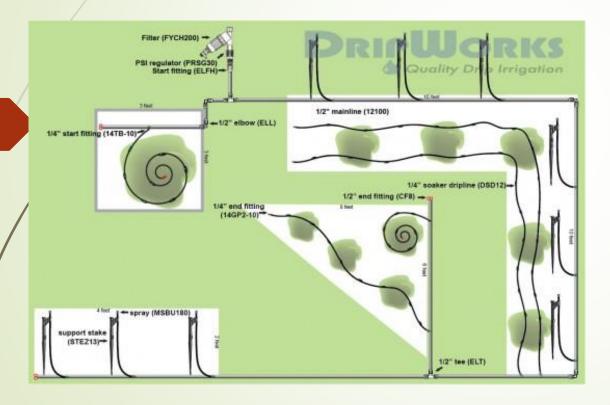


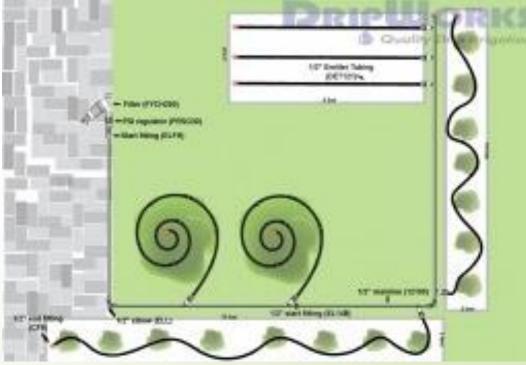
## Landscaping drip systems



## Landscaping drip systems

Do you mind having the tubes showing? Can you get to it to service it? Does it have a water source that's convenient & timed.





# Green house and patio gardening

Consider adding a fertilizer injector since this is pretty intensive gardening







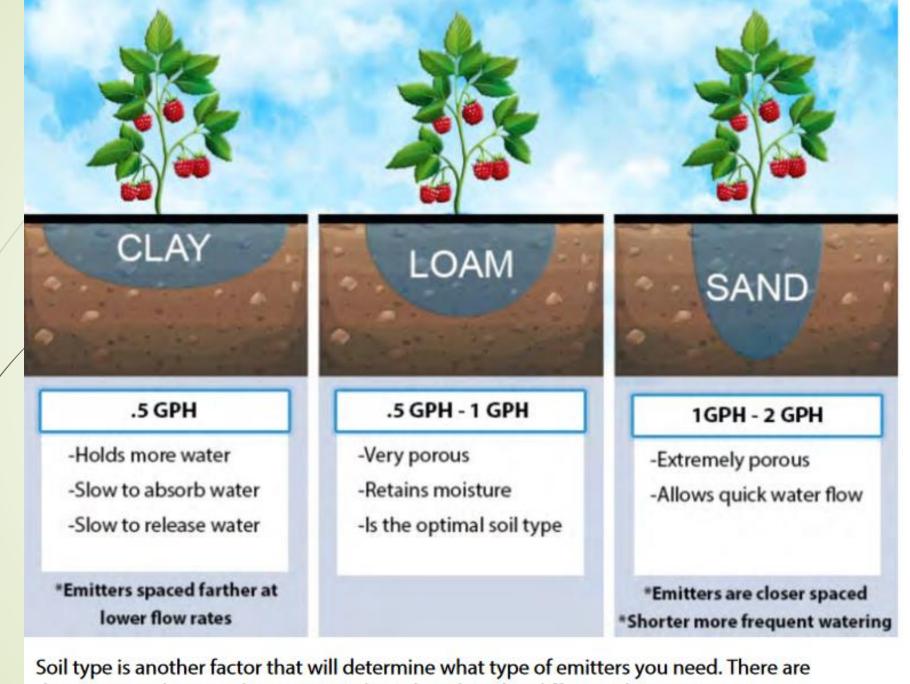
# Choose an emitter that rocks your boat

- Do you want to decide the spacing yourself?
- Do you like to see the water?
- How easy is it for you to fiddle with the emitters?
- Are slits or perforations enough?
- Do you need to adjust the flow to suit your soil type?
  - Sandy soil needs more water faster
  - Clay wants it low and slow









three main soil types, Clay, Loam, and Sand, each with a different absorption rate.

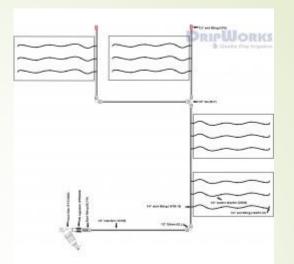
#### Watering too much or too little?

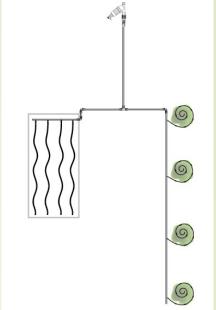
- Dig in and see how deep the soil is moist
- Watering needs change as plant needs change
- Too dry, and saturated area won't be large enough to reach all plants.
  - Especially important after planting seeds.
- Soil that's too wet will rot root crops
- You'll be using less water but will need to water more often
  - That's what the timer is for!

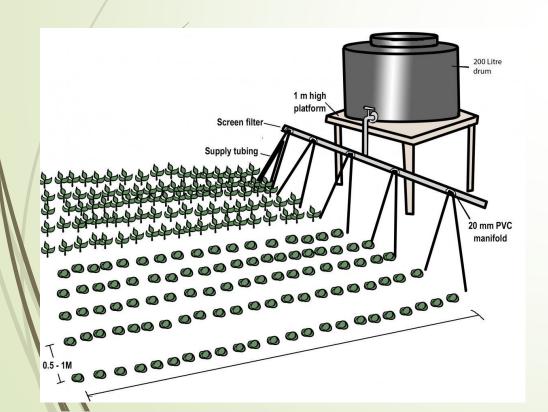
### Things to watch for

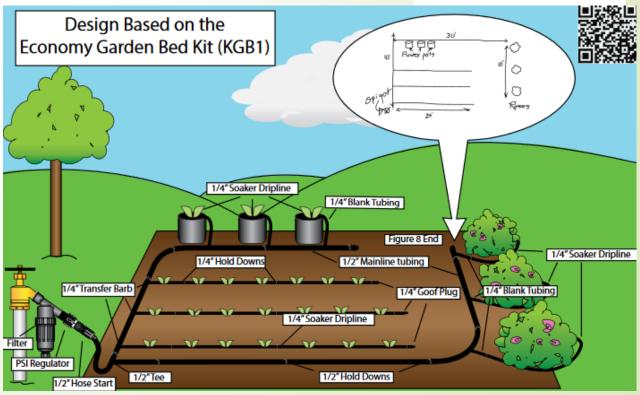
- Don't place lines where you'll mow, rototill, or trip over them.
- Lines clog if you get dirt in the system during installation or don't pre-filter
- The plastic tape or emitters break down from the sun and don't last forever
- Check for leaks or cuts the first week and after you hoe or rototill
- What are you going to do with it in the fall? Think about how you'll handle that.
- Time release or top-dressed fertilizer won't work as well

- -Make a plan
- -Look at the research done by OSU
- -Choose a system
- -Watch the 'How to' videos and read instructions before you start
- -Keep it simple









Some of the food I took to foodshare last week.



Questions?

Comments?

What's worked for you?

