

Identify nozzle placement options



- **Eaves:** 8 foot spacing is recommended
- **Fences:** 10 foot spacing is recommended- locate up wind nozzles high and down wind nozzles middle or low. In some cases it won't be necessary to place nozzles on downwind fences if you've got enough spray coming from up wind structures covering that portion of your property.
- **Trees:** Trees can be very beneficial to maximizing coverage. Upwind trees should be utilized to maximize your coverage. 8 to 15 feet in height is desirable. Make sure the nozzles won't be obstructed by branches or leaves.
- **Shrubs:** if you have mature shrubs that provide a lot of shade you can use a union tee to split off from a nozzle run line and run a buried line to these areas and use zip ties to fasten the lines and nozzles to the branches underneath the foliage using 6 foot spacing. Spraying under the foliage is recommended to protect your leaves and blooms, some plants react better than others to regular exposure to Pyrethrins and the newer safer plant oils.
- **Riser assemblies:** Risers are nozzles sleeved in copper tubing in 12, 20 or 32 inch standard lengths which are buried into the ground similar to a fixed sprinkler head and can be used when there is no other structure available to secure your nozzles.

when we move in... they move out.

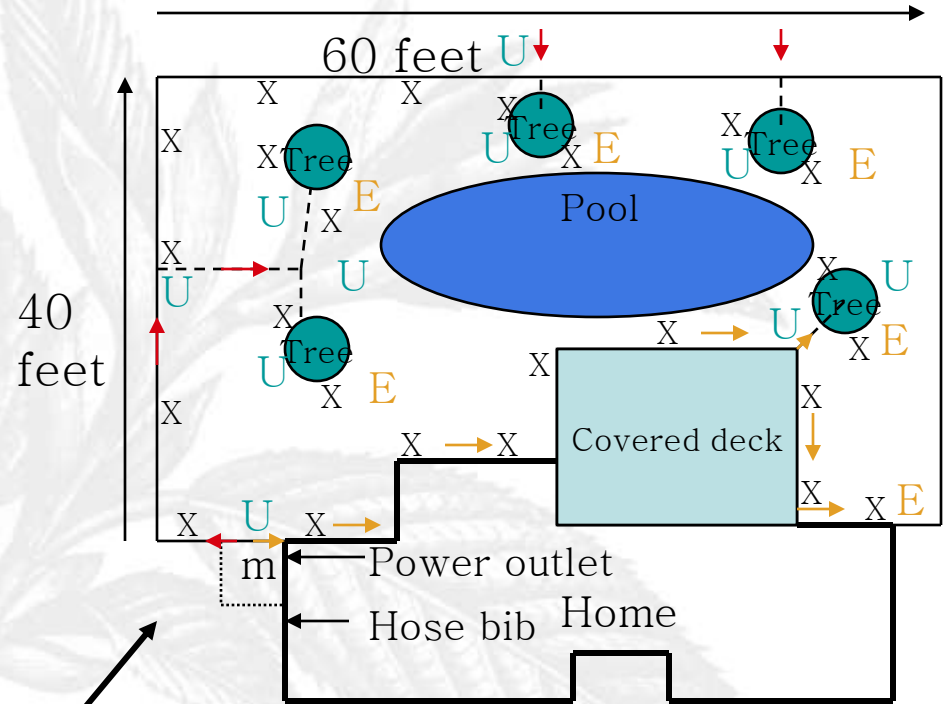
Planning your layout

- Draw a map of your planned tubing runs and connections needed to branch off to all the areas necessary. Typically you will only need 1/4" nylon tubing, 1/4" union tee fittings and Tee nozzle (continuous run) & Elbow nozzle (end the run) assemblies, clamps and fasteners. You might need some union elbow fittings if you have very tight 90 degree angle turns to make and it's always smart to have a few 1/4" straight unions on hand just in case you need to make an extension or relocate an existing nozzle without having to run new tubing. To avoid excess pressure drop it is recommended that no more than 35 nozzles be run over a 350 foot span of a single 1/4" end run line. If you have a large property to cover and you cannot close loop some or all of the system, it is best if 3/8" line is used beginning at the machine and reduce to 1/4" line to complete specific zoned areas. Easy to use push to connect reducer fittings are available for 3/8" to 1/4" connections. Try to balance your system runs as evenly as possible although pressure adjustments can be made if you experience an insufficient spray volume at any end runs. Manual valves can also be implemented if there is an area where you will only want to spray periodically.

Plan your layout and materials list



- Nozzles assembly's Run # 1 = 14
- Nozzles assembly's Run # 2 = 10
- Union Tees = 10
- Tee Nozzles = 18
- Elbow Nozzles = 6
- 500 foot reel 1/4" black nylon tubing
- Bk. tubing clamps= 100
- Bk nozzle clamps= 100
- Machine = 1
- Concentrated insecticide = 1
- 1" long coated deck screws



Predominant wind currents

- X = Tee Nozzles
- = Buried line
- m = Machine
- XE = Elbow nozzles
- U = Union tee
- ← = Run # 1
- = Run # 2

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