Drip Irrigation System Process Flow Diagram

Water flows from an elevated tank into the main line, which spans 6 ft. down one side of the greenhouse. The main line is constructed of TPR tubing. The TPR is available for purchase in Cameroon. The ground is to be built up higher around the main line to allow for better water flow.

Every 2 ft., there is a junction in the main line for sub-main lines to be placed. The junctions are made of plastic and manufactured in a plant in Cameroon. The sub-main lines are also to be constructed of the TPR tube and span 5.5 ft. across to the other side of the greenhouse.

Every 1 ft. (or the desired distance between plants) a hole (3 mm.) is made in the top of the tubing with a drill or auger to allow the water to drip out of the tube and onto the plants at a low but steady rate. This will make it less probable that the holes get clogged and will require less maintenance.

Design Properties

1. Dimensions: 6’x5.5’ greenhouse
2. Materials: Main/sub-main lines-TPR tubing, Junctions-plastic T-shaped connector
4. Environmental Conditions: Cameroon is very close to the equator, so the system must be able to endure higher temperatures. The system will be in an enclosed environment which will take stress off of it as it will not have to deal with natural weather.