WHY RUN A DRAIN TO WASTE SYSTEM?

Instead of Recirculating

"Drain to waste" provides more control over your plants and helps to prevent diseases

A very common concern is that the system will waste too much nutrient due to the excessive amount of "waste run-off." This is simply not the case. A dialed in "Drain to Waste" system will only waste 10-15% of the fed nutrient solution as "run-off." an example of this is as follows: A given garden uses 5 Gallons of water to feed all the plants within, the "waste run-off" will only be 1/2 to 3/4 of one gallon of solution. If using "Drain to Waste" with Coco, Soil or Rockwool, the frequency of watering is down to a minimum (usually once a day or once every other day.)
"Ok", you might say, "but, what are the benefits?" "Why should I run "Drain to Waste?"

The 3 principal reasons to run "Drain to Waste" are as follows:

1. **Less chance of Getting Root Rot**

Most common Root Rot issues spawn from pathogens that produce spores as a way of spreading their colonies and infecting further plants. The disease starts in one (usually the weakest) plant in the garden, and uses this plant as a factory to produce more spores (in an attempt to infect more plants with Larger Stronger colonies.) In a recirculating system, the spores generated from this one plant then drain out of the plant and collect into the main reservoir where they mass produce with the water supply and then infect all the plants in the garden on the next and succesive waterings. With "Drain to Waste" this cannot happen because any water leaving a given plant goes to a drain and not back to the "Main Reservoir" Therefore no spores can infect a reservoir.

2. **Always feeding FRESH nutrient rich solution to your plants**

In a "Drain to Waste" reservoir the nutrient rich solution feeds the plants and the "run-off" gets drained out the bottom of the plants and runs to waste. This ensures that plants get fed only FRESH non-recirculated nutrient every time. The difference between "Drain to Waste" and "Recirculating" reservoirs is as follows: In a recirculating reservoir the nutrient solution starts out complete as per the original recipe contained in the bottles. As the waterings / feedings continue and the plants feed off of the nutrient solution for the course of the week the solution loses key minerals to the plants unique feeding needs. This also causes precipitates to form as certain minerals (now in new molecular arrangements) "lock up" and fall out of solution. Now the orignal recipe is no longer intact. With "Drain to Waste" this is not the case. The Recipe stays intact and the plants always get the complete line of food requirements every time. This provides for Healthier, Stronger, and Faster growth.

3. **The ability to do Flushes and Drenches**

Flushes are very important in a coco-based or rockwool-based medium. Flushes allow for the reseting of the medium as well as a drawing out of un-wanted nutrients from within the plants themselves. Flushes can be very instrumental for good healthy plant growth. Under normal condtions (recirculating system) a Flush will pull the salts out of the medium as well as the plant, draw them into the reservoir, and then keep pumping them back into the plants again and again, until the reservoir is drained and the cycle is repeated a few times. With "Drain to Waste" this is not neccessary. We can run a Flush "to waste." All salts and excess minerals are drained from the plants and truely Flushed away.

Drenches are also another nice feature of "Drain to Waste" systems. For example, products like **Gnatrol** were made to be used in a soil based system and not designed for a recirculating hydroponics system. With a Drench, one can load the Reservoir up with any given product and run it once or twice through the system and then either Flush or change out the reservoir and re-up the regular nutrient regimen and feed as normal. There are many products that are made for a Drench application. Alternatively one can Drench by pouring over the tops of the plants - then flush. *Call with Questions on Drenching - Please.*

Other reasons why Drain to waste is a better overall system choice:

1. pH doesn't fluctuate as much
2. System itself stays cleaner
3. Most Large Agricultural Business use Drain to Waste

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