



Organic Vertical Farming
New Buffalo, Michigan

A Comparison of Hydroponic Systems* To Traditional Dirt Farming

Note: *Green Spirit Farms uses a 'Beyond Hydroponic' Growing System that uses **significantly less water than traditional hydroponics.***

- Traditional Farming operations use large irrigation systems to provide sufficient water to crops while hydroponics significantly reduces irrigation requirements (by up to 90%) by controlling (and recycling) the water used within the hydroponic system - minimizing water usage
- Hydroponic farming similar to the Green Spirit Farms system eliminates the need for toxic and expensive chemical insecticides and herbicides and recycles some nutrients based on the vegetable
- Crops can be grown year round regardless of weather conditions using hydroponic systems and in a more controlled environment eliminating severe weather extremes that can damage crops (seasonally) that are grown outside using traditional farming methods
- Green Spirit Farms Vertical Farming hydroponic system using the Omega Garden technology in the Vertical Growing Station significantly reduces the land area required to grow vegetables and herbs 10:1 or in some instances 25:1 (annually) depending on the crop
- Crops or vegetables produced using hydroponics tend to be higher in vitamins and antioxidants and provide higher yields faster when compared to traditional farming methods
- The nominal “shelf life” of produce grown hydroponically has been observed to be substantially longer (1-2 weeks) than vegetables harvested from traditional (and often more distant) farms
- Hydroponically grown (vegetable) crops exhibit smaller roots bigger fruits
- Fungal disease can be significantly reduced through hydroponic systems due to the ability to control humidity and eliminate the “micro” environments found in outdoor farming
- Hydroponic systems reduce the amount of exposed moisture in a growing environment and conserve water
- Hydroponic systems can protect crops from increasing and potentially damaging excess UV radiation insuring uniformed grow rates and maximum yields consistently