



Change Food for Good.

Pantry Produce Farm Plan

Student Name: Pammi Balani	Type Of System: NFT System	Design Link: 3D Design Link
Crop Name: Fresca Strawberry Seeds		
Crop Family/ Plant Zone: Strawberries & Zone 4-10		
Growing Conditions		
Ideal PH (Potential Hydrogen)	5.8-6.2	
Ideal EC (Electrical Conductivity) (If there is a range of EC for different stages of growth, list all that apply)	Maintain an EC around 1.0 dS.m ⁻¹ to ensure optimal nutrient uptake.	
Recommended Nutrient Blend	The ideal nutrient blend for hydroponic strawberries should contain important macronutrients such as nitrogen, phosphorus, potassium, calcium and magnesium. Trace elements like boron and iron should be added along with beneficial micronutrients like zinc, manganese and copper. An initial NPK 19-19-19 ration would be ideal. However, once small flowers start blooming, the NPK ratio should be changed to either options:	

	5-15-30, 6-12-36 or 8-25-25.	
Ideal Temperature Range	Optimal growth is maintained at day temperatures between 23–28°C, with an ideal night temperature between 5–10°C.	
Ideal CO2 (parts per million)	n/a	
Ideal RH (Relative Humidity)	60-75% RH	
Ideal VPD (Vapor Pressure Deficit)	0.3-1.2 kPa	
Spacing Required Between Plants	6-8 inches	
Additional Growing Details		
Days to Germination	Days to Transplant	Days to Harvest
7 to 42 days	42 to 90 days	90 to 120 days
Specialized Germination Conditions	Y [✓]	N []
Trellis Needed	Y []	N [✓]
Pollination Needed	Y [✓]	N []
Pruning Needed	Y [✓]	N []
Flowering Crop	Y [✓]	N []
Single Harvest or Multiple Harvest	Multiple Harvest	
Annual Or Perennial	Perennial	
Cool or Warm Weather Crop	Warm Weather Crop	
Growing Medium Used	Coco Coir Seed Plugs	
# of People Fed by Yield	150 people by 1 hydroponic plant system	
Light Requirements		
Ideal PPFD	Seedling stage:100-200 μMol/m2/S, Vegetative State: 200-500 μMol/m2/S	

	Flowering and Fruiting Stage: 500-600 μMol/m2/S	
Ideal DLI Range	17 mol m-2 d-1	
Number of Hours Required Under Light	10-12 hours	
Distance Required from Light	Min 12 Inches	
Natural Lighting Used? Estimate Number of Hours	Natural Lighting isn't used due to growing area conditions	
Grow Area Information		
Measurements of Space:	4 feet(L) x 2.5 feet(W) x 11.5feet(H)	
Measurements of Grow Bed:	48 inch(L) x 18inch(W) x 17 inch(H) (two shelves=two grow beds)	
Size of Reservoir (gallons)	17 gallons	
Water Access Nearby	Y [✓]	N []
Filtered Water (specify type of filter) or Tap Water	Tap Water	
Outlets Nearby	Y [✓]	N []
Outlets with GFCI	Y [✓]	N []
Storage Space Available	Y [✓]	N []
Steady Wifi	Y [✓]	N []
Pests Present	No pests present	
Electrical Hazards Present	An outlet right above the site point. There is only 1 outlet so its occurrence is not prevalent.	
Chemical Hazards Present	No chemical Hazards Presented	

Pictures of Grow Area

