http://www.cornellcea.com/resourcesPublications/CornellPublications/index.html

Sulphuric acid to lower the pH

--limestone in well water = carbonic acid = lower pH

--rainwater > reverse osmosis (RO) > well water

Sodium hydroxide to raise the pH

(Stock A)

• Calcium Nitrate 29160.0 g

• Potassium Nitrate 6132.0 g

• Ammonium Nitrate 840.0 g

• Sprint 330 Iron - DTPA (10% Iron) 562.0 g

(Stock B)

• Potassium Nitrate 20378.0 g

• Monopotassium Phosphate 8160.0 g

• Potassium Sulfate 655.0 g

• Magnesium Sulfate 7380.0 g

• Manganese Sulfate\*H2O (25% Mn) 25.6 g

• Zinc Sulfate\*H2O (35% Zn) 34.4 g

• Boric Acid (17.5% B) 55.8 g

• Copper Sulfate\*5H2O (25% Cu) 5.6 g

• Sodium Molybdate\*2H2O (39% Mo) 3.6 g

(Macronutrients)

N (9 parts)

P (1 part)

K (5 parts)

Ca (2.2 parts)

MG (1 part)

S (1.1 part)

(Micronutrients)

Fe

Mn

B

Cu

Zn

List of Controlled Environmental Variables

• Light

• HID luminaires and T5/T8 fluorescent fixtures

• are also much more efficient than incandescent

• bulbs, with efficiencies approaching the best

• LEDs

• Temperature

◦ @ ~ 60

◦ @ ~ 60

◦ @ ~ 67

• 1 air conditioner with mod

• Humidity

• 2 dehumidifiers

• Atmospheric CO2

• reduces ~1/3 of light needed

• Water

◦ 3x 250 gallons main tanks

◦ 3x ? gallon seedling tank

• Stock A

• Stock B

• Root additive

• Aerating stones

• Carbon pre-filter before RO membrane to protect from chlorides

◦ Water other than RO has a high buffer and resists additives

8-24-17 (9-4)

Shisho (200 seedlings) / arrowhead spinach (100 seedlings)

Welcomed at 9am by Shannon. Reviewed task board outlining the three farms, which includes a list of pending tasks and inventory of each. Updates to procedure and upcoming projects are also found here (including no longer using pesticide for gnats and implementing DO filtration).

Monthly maintenance then outlined - she had been saving some tasks.

1. Review each tower for anything obviously outstanding, i.e. flooding, broken lights

2. Clean gutters of debris buildup near drains

3. Clean air conditioning filters with (cleaning solution)

4. Replace one dehumidifying filter

5. Replace water of one dehumidifying filter

6. Clean water pump intake filters “

1. Wipe algae from aerating stones “

Lunch break, crew arrives to install reverse osmosis (RO) filtration system. Talk.

Learn tasks involved with transplanting

1. Remove seedling plugs from trays

2. Remove and clean empty tower with “

1. Remove and recalibrate wick if needed

3. Implant plugs equidistant from each other

4. Reclean tower and hang according to species

8-31-17 (9-4)

Change 18 fly traps, clean 3 gutters and 14 nozzles

Red Rushing Kale (200 seedlings)

Red Cabbage (200 plugs and seeds)

Vinoy Asian Mix (200 plugs and 3-5 seeds)

Add Great White Root Grower to Seedling tank and Main tank (3 farms)

Refill Stock A (Macro- Manganese, Nitrogen, Phosphorous)

Refill Stock B (Micro- 19 including Chromium

Talk preparation for Saturday, review duties as traffic direction and money collection.

Schedule Saturday for Apiary trip

9-2-17 (9:30-2)

gave tours during open house and cashed out customers for produce

9-23-17 (11:30 – 1)

10 towers of SALA transplanted

Turned off main pump and exhaust fans

https://www.cropking.com/system/microgreen-rack

http://www.freedrinkingwater.com/commercial-reverse-osmosis-systems/

SECOORA Parameters

Water Temperature

Water Level

Air Temperature

Winds: Speed and Direction

Winds: Gusts

Barometric Pressure

Precipitation

Blue Green Algae

Chlorophyll

Conductivity

Dissolved Oxygen

pH

Relative Humidity

Salinity

Turbidity