

# GROUND UP



## ROOTS TO SHOOTS

Ground Up Fertilizers Cell: 082 881 0301



# Requirements for growth

1. Seed
2. Medium
3. Water
4. Climate
5. Fertilizer / nutrition

# Managing Factors to benefit growth



## 1. Seed

- Test varieties.
- Resistance packages
- Variety selection must not only focus on above soil results, roots vigour is critical.

# Managing Factors to benefit growth



## 2. Medium

- Coir; Peat; Bark; Perlite; Vermiculite .....
- Air filled porosity
- Water holding capacity
- Know the aging process of your medium
  1. pH changes
  2. Water retention changes
  3. Physical characteristics changing
  4. Nutrient composition changes



# Managing Factors to benefit growth

## 3. Water

- Water quality and pH
- Run off percentages and effect on E.C
- Irrigation Frequencies
  1. Effectiveness of root development
  2. Spread of roots in pot
  3. Type of roots that develop



# Managing Factors to benefit growth

## 4. Climate

- Heat and Humidity
- Air flow
- Sunlight intensity – Additional screens / netting



# Managing Factors to benefit growth

## 5. Fertilizer / Nutrition

### 1. As nutrients

- Concentration
- Ratio's
- Frequency

### 2. As a management tool

- What is Active Growth
- Manage E.C to improve Active Growth
- Weekly planning of E.C



# Managing Factors to benefit growth

## 3. As a stimulant

- Identify what needs to be triggered
- Elements to use
- Plant stimulants to use
  1. Seaweed
  2. Amino Acids
  3. Other stimulants??