

# Microgreens

- Microgreens are seedlings
  - harvested with 1-2 true leaves, may contain cotyledons
  - vegetable and herb seedlings
- Easy to grow, 10-12 days
- High nutritive value, sometimes higher than mature plants
- Can fetch higher price (assess market demand)



# Popular species

- Amaranth
- Arugula
- Basil
- Beet
- Broccoli
- Brussel
- Sprouts
- Cabbage
- Cauliflower
- Celery
- Chia
- Endives
- Kale
- Lettuce
- Mustard
- Red Clover



USDA-ARS

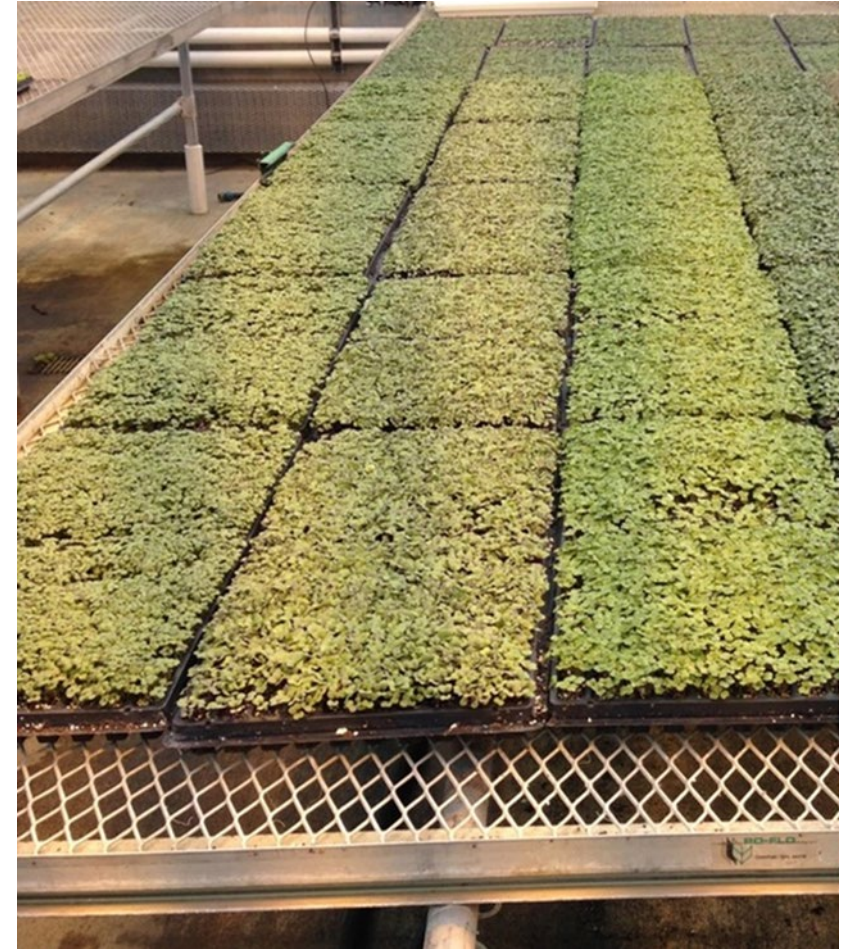
# Nutritional Value (USDA-ARS)

- Among the 25 microgreens tested, red cabbage, cilantro, garnet amaranth, and green daikon radish had the highest concentration of Vitamin C, K, E, and carotenoids
- Microgreens contained five times higher levels of nutrients than their mature plants



# Growing microgreens

- Environment:
  - Greenhouse, indoor environment
  - 7 -10 mol/m<sup>2</sup>/d for quick growth after germination
  - 65 to 75°F growth temperature
  - humid environment during germination
- Grown in trays filled with soilless substrates
  - Keep substrate moist prior to germination (what type of mix is preferred?)
  - Approximately 1-1.5 inch deep substrate in the tray
- Broadcast seed
  - Gently compress seed after broadcasting to increase contact with the substrate or add a thin layer of fine substrate
  - Spray water on the surface after sowing
  - Planting density: 100 - 300 g/m<sup>2</sup> (depends on the variety)



# Growing microgreens

- Fertilizer
  - No need for fertilizers if media has a starter charge
  - Dilute fertilizer concentration (EC of 0.5 dS/m)
- Diseases
  - Damping off/molds
  - Good airflow, moderate humidity, right planting density, optimal substrate moisture can aid in avoiding diseases
- Harvesting
  - Usually with scissors when seedlings have 2-3 leaves
  - Mechanical harvesters available
  - Cold storage needed, perishable commodity
  - Yield can vary between 1.5 to 2.5 kg/m<sup>2</sup>

