



Microgreen club

Name of the event: Production of Wheat microgreen

Date: 10-09-2024

Venue: Crop Physiology and Biochemistry Laboratory (S308)

Number of students participated: 15

Objective of the event:

- ❖ The goal is to cultivate nutrient-rich wheat microgreens that can be harvested within 7-10 days for use in salads, sandwiches, smoothies, or as a garnish.
- ❖ Wheat microgreens are known for their high concentration of vitamins, minerals, and antioxidants, making them a healthy addition to various dishes.

Materials Needed:

Wheat Seeds: Use organic wheat berries or seeds to ensure a healthy and chemical-free crop.

Growing Medium: Options include soil, coconut coir, or a seed-starting mix. Ensure it is well-draining and free of contaminants.

Growing Tray: A shallow tray with drainage holes is ideal. It should be large enough to accommodate the number of seeds you plan to grow.

Water Spray Bottle: For misting the seeds and keeping the growing medium moist.

Clear Plastic Cover or Lid: To create a humid environment during the initial stages of germination.

Light Source: Natural sunlight or grow lights. Wheat microgreens need 4-6 hours of light per day.

Paper Towels: For soaking the seeds before planting.

Scissors: For harvesting the microgreens.

Preparation:

Seed Preparation:

- **Soak the Seeds:** Place the wheat seeds in a bowl and cover them with water. Let them soak for 8-12 hours. This softens the seed coat and initiates the germination process.
- **Drain and Rinse:** After soaking, drain the water and rinse the seeds thoroughly with fresh water. Repeat this process 2-3 times over the next 24 hours until you notice small sprouts emerging from the seeds.

Preparing the Growing Tray:

- **Fill the Tray:** Spread a 1-2-inch layer of the growing medium evenly in the tray. Gently pat it down to create a flat surface.
- **Moisten the Medium:** Lightly mist the growing medium with water until it is evenly moist but not waterlogged.

Sowing the Seeds:

- **Distribute the Seeds:** Evenly scatter the soaked and sprouted seeds over the surface of the growing medium. Avoid overlapping the seeds too much, as this can cause uneven growth and potential mold issues.
- **Cover with a Thin Layer of Soil:** Lightly sprinkle a thin layer of the growing medium over the seeds, just enough to cover them.
- **Mist the Seeds:** Spray the seeds with water to moisten them.

Germination:

- **Cover the Tray:** Place the clear plastic cover or lid over the tray to create a humid environment. This helps speed up germination.
- **Place in a Dark Area:** For the first 2-3 days, keep the tray in a dark, warm place. Check daily to ensure the growing medium stays moist by misting as needed.

Growing Phase:

- **Expose to Light:** After 2-3 days, once the seeds have sprouted, remove the cover and place the tray in a well-lit area. If using grow lights, ensure they are positioned about 6 inches above the tray.
- **Maintain Moisture:** Continue to mist the microgreens daily, keeping the growing medium consistently moist but not soggy.

Harvesting:

Ready to Harvest: Wheat microgreens are typically ready to harvest in 7-10 days when they reach a height of 4-6 inches. They should have vibrant green leaves and a fresh, grassy scent.

Harvesting: Use scissors to cut the microgreens just above the soil line. Rinse them under cold water and pat them dry before use.

Storage:

Storing Microgreens: Store harvested microgreens in an airtight container in the refrigerator. They can last for up to a week when stored properly.

Photos of the event:

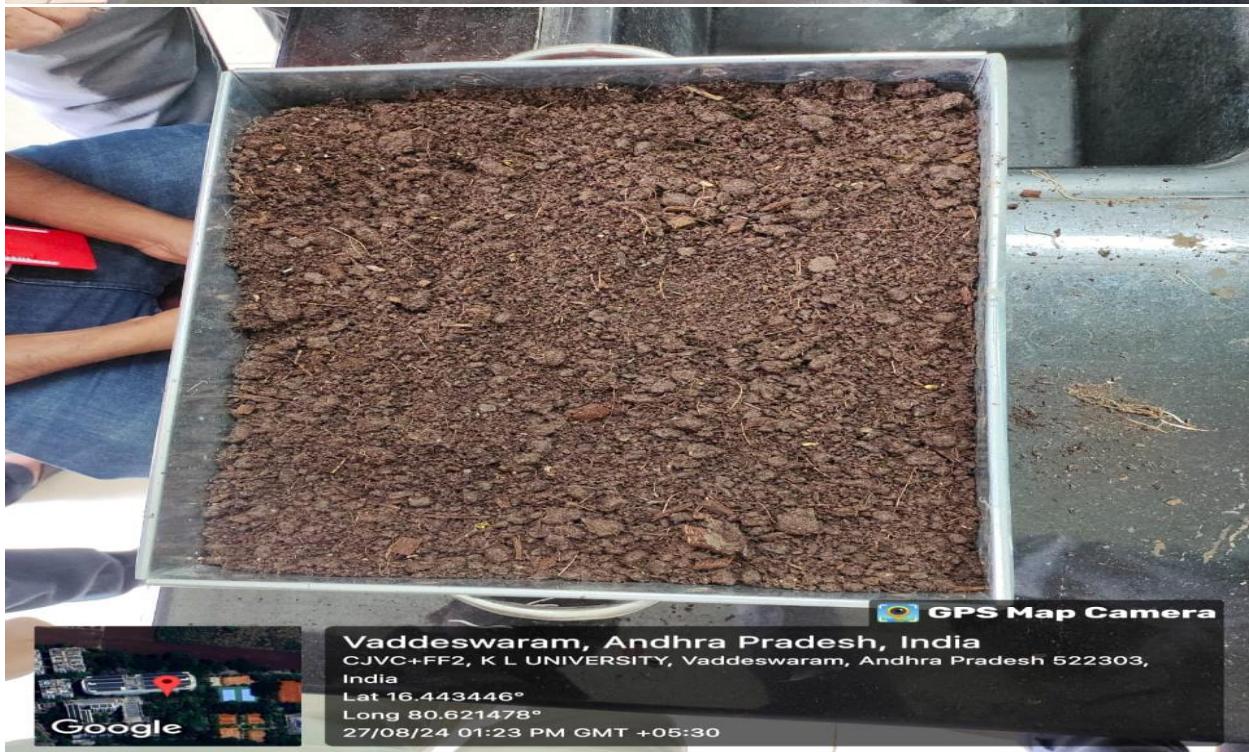


Fig: 1 Preparation of coco peat beds Wheat seeds



Fig: Providing proper moisture to germinate microgreens.



Fig: 3 After 15 days harvested.