



Bloom: Cultivating Growth and Empowering Lives

1. The Why

Bloom is more than just an urban farming venture; it is a social enterprise designed to empower young adults with special needs by offering them meaningful employment opportunities in a supportive environment. The heart of *Bloom* lies in its commitment to provide these individuals with a space to grow both personally and professionally, fostering independence and confidence through work in a thriving agricultural system.

Mission Statement

At *Bloom*, we believe in the potential of every individual to thrive and grow. By offering hands-on experience in sustainable agriculture, we provide meaningful employment and skill-building for young adults with special needs.

2. The Bloom Concept

The Social Enterprise Model

Bloom operates as a social enterprise, where the revenue generated from our agricultural operations is reinvested into the business to support our mission of providing employment to young adults with special needs. This model allows us to balance both economic sustainability and social responsibility, ensuring that our impact grows as we expand. Our open-source concept, "Bloom in a Box", will offer a replicable solution, allowing communities around the world to adopt this model, combining urban farming with social inclusion to create lasting local change.

The Vision

Our goal is to create a scalable model that combines urban farming with social inclusion, enabling anyone, anywhere, to start their own *Bloom* and provide similar opportunities to young adults with special needs. This model, referred to as "*Bloom in a Box*", can be replicated globally, ensuring that communities worldwide can contribute to both the local food supply and the betterment of neurodiverse individuals.

The Bloom in a Box concept is designed to be a scalable and open-source model that empowers other communities to replicate our success. This system includes all the necessary tools, resources, and guidelines for setting up a hydroponic farm that doubles as a social enterprise. This model is adaptable to different spaces, allowing anyone, anywhere, to start their own Bloom and impact their community positively.



The Process

At *Bloom*, we focus on growing microgreens using soil and hydroponic systems. These systems are low-maintenance, water-efficient, and provide a controlled environment ideal for cultivation. Our focus on microgreens is due to their short growth cycle and nutritional density, which allows us to offer a high-quality product to the market while teaching valuable skills to our employees.

Products

- Microgreens
 - Broccoli
 - Radish
 - Peas
 - Sunflower
 - Cilantro

3. The Operational Model

The Workspace

We operate in a specially designed hydroponic environment. The workspace is a small indoor facility with controlled light, temperature, and humidity, allowing us to grow high-quality produce year-round.

Roles and Responsibilities

At *Bloom*, each team member plays an essential part:

- **Young adults with special needs:** They are responsible for daily tasks such as planting, harvesting, and maintaining the hydroponic systems. These roles are designed to build their skill sets, from responsibility and time management to teamwork and self-reliance.
- **Neurotypical manager:** Oversees operations, ensures that the systems are running smoothly, and provides guidance and support to the employees with special needs.
- **Partnership with educators:** We collaborate with educators and special needs professionals to tailor the work environment to the abilities and strengths of each employee.



Step-by-Step: Growing in Hydroponics

1. **Setting up racks:** The plants are grown on vertical racks, maximizing the use of space. Each rack is equipped with LED lights and a water-nutrient delivery system.
2. **Planting:** Employees place seeds in grow plugs and monitor them as they sprout in the nursery stage.
3. **Growth phase:** Plants are moved to the racks where they receive light and water through the hydroponic system. This phase requires regular monitoring and adjustments to ensure the plants are growing optimally.
4. **Harvesting:** After 7–21 days (depending on the crop), the microgreens are harvested, packed, and prepared for sale or delivery to local markets.
5. **Distribution:** The fresh produce is sold to local restaurants, farmers' markets, and community-supported agriculture (CSA) programs.

4. The Bloom Method

1. Microgreens Growing Process

1. Get Two Clean Trays

- **Tray with Holes:** This is used for drainage, allowing any excess water to seep out and avoid overwatering, which can lead to mold or root rot. The holes also ensure proper aeration of the root system.
- **Tray without Holes:** This tray will act as a base to catch the water that drains from the top tray. It prevents water from spilling and helps maintain cleanliness in your growing area. Using clean trays ensures that no pathogens or leftover substances from previous crops affect your new batch.

2. Mix Soil and Fertilizer and Water It

- **Soil Mix:** Use a light, organic potting mix or a specific growing medium for microgreens. You want something that holds moisture well but drains excess water effectively.
- **Fertilizer:** Add an organic fertilizer that contains the essential nutrients for young plant growth (like nitrogen, phosphorus, and potassium). For microgreens, some growers prefer not to use fertilizers, especially if the growth period is short (7–14 days), but adding fertilizer can enhance growth and nutrient content.
- **Watering the Soil:** Mix water into the soil until it is moist but not soggy. You should be able to squeeze it and have it hold its shape without water dripping out. Proper moisture ensures even germination of the seeds.



3. Spread Seeds

- **Seed Selection:** Choose high-quality seeds suited for microgreens. Common varieties include broccoli, radish, sunflower, pea shoots, and kale.
- **Seed Density:** Microgreens require a higher seed density than traditional crops. Spread the seeds evenly over the surface of the moistened soil. Be careful not to overlap them too much; overcrowding can lead to poor air circulation and mold.
- **Spacing:** Aim for a uniform layer of seeds without them being piled up. A good rule is to have the seeds just touching each other but not stacked on top of one another.

4. Press

- **Gently Press the Seeds:** After spreading the seeds, gently press them into the soil with your hand or a flat object (like a small piece of wood or another tray). This ensures good contact between the seeds and the soil, which aids in moisture absorption and promotes germination.
- **Ensure Evenness:** The pressure should be firm but gentle enough not to bury the seeds too deeply. The goal is to have them embedded just slightly into the surface of the soil.

5. Stack

- **Tray Stacking for Germination:** Stack another tray without holes (empty) on top of the seeded tray. This creates weight and darkness, simulating the natural pressure seeds would experience under soil in outdoor conditions. The weight encourages the seeds to develop strong roots as they seek light.
- **Time in Stack:** Leave the stacked trays for about 2–3 days, depending on the seed type. This period allows the seeds to sprout and develop initial roots. Check the moisture during this time, and lightly mist with water if necessary.

After a few days, once the seeds have sprouted and pushed up against the top tray, you can unstack them and expose the microgreens to light for the next stage of their growth.



6. Unstacking and Exposing to Light

- **Timing:** After about 2–3 days of stacking (depending on the seed type), you'll notice that the seeds have sprouted and are pushing up against the top tray. At this point, it's time to unstack the trays.
- **Light Exposure:** Once unstacked, the microgreens need light to continue growing. You can place the trays under grow lights or near a sunny window. LED grow lights are ideal because they provide the correct spectrum for optimal growth. Microgreens need about 12–16 hours of light per day to grow well.
- **Air Circulation:** Ensure proper air circulation to prevent mold or fungal growth. A small fan or natural ventilation will help reduce the risk of dampness and promote healthy, strong plants.

7. Watering

- **Bottom Watering:** To avoid damaging the delicate microgreens, it's recommended to water from the bottom. Fill the bottom tray (the one without holes) with water and let the soil in the upper tray absorb the moisture through the holes. This helps avoid overwatering the soil surface and keeps the greens dry, reducing the risk of mold.
- **Check Moisture Levels:** Keep an eye on the moisture levels in the trays. Microgreens like moist soil but should never be waterlogged. Watering once a day, or every other day, depending on your environment (humidity, temperature), should be sufficient.
- **Avoid Overwatering:** Overwatering can lead to mold or fungus, so only add water when the soil starts to dry out. The soil should feel damp but not soggy.

8. Growth and Monitoring

- **Continued Growth:** Over the next 4–7 days, the microgreens will rapidly grow. Different types of microgreens grow at different rates, but most are ready to harvest within 7–14 days after planting.
- **Monitoring:** Keep checking the height and color of the plants. Healthy microgreens should have vibrant green leaves, strong stems, and upright growth. You can mist them with water lightly during this stage if needed, but avoid wetting the leaves excessively.
- **Thinning (if necessary):** If your seed density was too high and some plants look overcrowded, you may need to thin them out to ensure proper airflow between the plants.



9. Harvesting

- **Timing:** Most microgreens are harvested when they have developed their first set of true leaves (also called the cotyledon stage), which is around 1 to 2 inches tall. Harvesting at this stage gives the best flavor and nutritional content.
- **Method:** Using sharp scissors or a knife, cut the microgreens just above the soil line. Be careful not to pull them out of the soil, as this can introduce soil and roots into your final product.
- **Harvesting Time:** The best time to harvest microgreens is in the morning when they are most hydrated and crisp. If possible, avoid harvesting in the heat of the day to preserve freshness.

10. Post-Harvest Handling

- **Washing (Optional):** Some growers wash the microgreens after harvest to remove any dirt or particles. If you do wash them, be sure to dry them completely using a salad spinner or by laying them out on paper towels. Wet microgreens spoil faster.
- **Storage:** After harvesting, store the microgreens in a cool place. They can be stored in the refrigerator in airtight containers or plastic bags. Place a paper towel inside the container to absorb any excess moisture, which helps prolong their shelf life.
- **Shelf Life:** Microgreens typically last 5–7 days when stored properly, though their freshness can vary based on the variety and storage conditions. For best results, harvest only what you need for immediate use to maintain freshness.

11. Cleaning the Trays and Preparing for the Next Crop

- **Cleaning:** After harvesting, clean the trays thoroughly to remove any leftover soil or organic matter. Use a mild detergent and water to scrub the trays, followed by rinsing them with a diluted vinegar or hydrogen peroxide solution to disinfect them. This helps prevent the growth of mold or diseases in the next batch of microgreens.
- **Reusing Soil (Optional):** While some growers prefer using fresh soil for each new batch of microgreens, you can also reuse the soil by adding more nutrients (compost or fertilizer) and aerating it. Just make sure to remove any remaining roots from the previous batch.



12. Replanting

- **Repeating the Process:** After cleaning the trays, you can begin the process again with fresh seeds and soil. Some growers run continuous cycles of microgreens to ensure a steady supply, staggering their plantings so new microgreens are always ready for harvest.

Summary of Timeframes:

- **Germination:** 2–3 days (during stacking phase).
- **Growth:** 4–7 days after unstacking, with exposure to light.

Harvest: Typically, microgreens are ready 7–14 days after sowing, depending on the variety and conditions.

2. Soft Skills Development

Step 1: Communication Skills

- **Task Communication:** Encourage clear communication about daily tasks. Team members should verbally express what tasks they are completing and ask for help when needed.
- **Active Listening:** Implement group check-ins where individuals share progress and listen to feedback.
- **Constructive Feedback:** Create a culture where feedback is welcomed and provides room for growth.

Step 2: Time Management

- **Task Prioritization:** Teach employees how to prioritize tasks (e.g., monitoring water levels vs. harvesting) and develop schedules.
- **Daily Routines:** Establish routines that help individuals manage their time effectively while building predictability in their tasks.



Step 3: Teamwork

- **Role Allocation:** Assign each person a specific responsibility (e.g., seed planting, watering) to foster accountability.
- **Collaboration Projects:** Create opportunities for employees to work together on larger tasks (e.g., assembling racks or packaging).

Step 4: Problem-Solving

- **Critical Thinking:** Teach employees how to identify issues (e.g., plant health, water levels) and come up with solutions.
- **Guided Decision-Making:** Encourage guided but independent decision-making. Provide scenarios for practice, such as “What to do if the water levels are too low.”

Step 5: Self-Confidence and Independence

- **Task Ownership:** Ensure individuals are aware of their importance to the overall success of *Bloom*. Recognize efforts with positive reinforcement.
- **Skill Mastery:** Allow employees to master specific tasks and gradually introduce more complex ones to build their confidence.

5. The Team and Stakeholders

Founders

Bloom was founded by [Felipe Sommer] and [your partners' names], who shared a passion for social impact and urban farming. Their vision was to create an inclusive workforce for young adults with special needs while addressing the growing demand for sustainable, local food production.

Our Team

- **Young adults with special needs:** Our employees are at the core of everything we do. We aim to equip them with job skills that can open doors for future employment in various industries.
- **The neurotypical manager:** A key figure responsible for day-to-day operations and mentorship, ensuring that both the farming process and the team's needs are met.
- **Partners and collaborators:** We work closely with schools, educational institutions, and other local nonprofits to integrate training programs and offer holistic support.



A Byproduct: Vocational Programs for Schools

One of the most exciting outcomes of *Bloom* is the creation of a vocational program for schools. This program offers students with special needs hands-on experience in soil and hydroponic farming, preparing them for future employment opportunities and providing valuable life skills. Schools partnering with *Bloom* can integrate this vocational program into their curriculums, fostering a deeper connection between education and practical work.

Community Involvement

- **Local schools:** We collaborate with schools to educate students about the importance of urban agriculture and the social model that *Bloom* represents.
- **Volunteers:** Community volunteers play a role in supporting our efforts, offering their time and skills to enhance operations or help with outreach.

The Pilot Program

To further refine and validate the Bloom model, we are currently running a pilot program in collaboration with KWKA. This pilot program integrates high school students with special needs into the farming operations, providing them with hands-on work experience while documenting and evaluating the best practices for scalability. The insights from this pilot will guide the development of our "Bloom in a Box" model, ensuring its success when adapted for new communities.

6. How to Get Involved

Support Us

- **Partner with us:** Organizations, schools, and nonprofits can collaborate on creating *Bloom* programs or adapting the "*Bloom in a Box*" concept to new regions.
- **Volunteer:** Whether you're an experienced grower or just passionate about our mission, volunteers are welcome to assist with various operational tasks.
- **Donate:** Contributions help fund our ongoing efforts to create inclusive, meaningful employment for young adults with special needs.



Adopt Blooom in a Box

We are actively seeking partners to take our *Blooom in a Box* model to new locations. This open-source framework provides all the necessary tools to set up a hydroponic farm that doubles as a social enterprise. It includes guides for everything from building the hydroponic systems to creating inclusive work environments.

Collaborate

Educators, agricultural experts, special needs specialists, and business leaders can collaborate with us to enhance our methods and expand our impact. We welcome input on improving training programs, refining farming techniques, and scaling the business model.

7. Conclusion

At *Blooom*, we believe that the intersection of agriculture and social responsibility can create a meaningful impact. By providing employment and skill-building opportunities to young adults with special needs, we not only grow food but also foster community, independence, and inclusivity. Our model is designed to be adaptable and scalable, and we hope to inspire others to join us on this journey of empowerment through farming.