

Chow Hall Farms: Military Veteran Training for Sustainable Controlled Environment Agriculture Farming

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Introduction

Controlled Environment Agriculture (CEA) farming systems can grow fresh produce in urban areas where traditional soil farming is not possible. Currently, there are no programs that offer urban CEA education targeted at military veterans.

We partnered with the Veterans Community Project (VCP) which has served over 4,000 veterans since 2017. The VCP provides transitional housing for homeless military veterans and wraparound support services for all veterans. Our training program prioritizes military veterans in the transitional housing with an interest in agriculture as a career or business enterprise. The program is also open to other military veterans in the Kansas City area.

The goal of our project is to increase the number of military veterans gaining knowledge and skills that will allow them to pursue successful careers/businesses in the agriculture industry. The specific objectives are:

- Recruit and retain 50 military veteran beginning farmers (MVBF)
- Transition at least 50% of the MVBF to part- or full-time employment opportunities in agriculture or STEM
- Develop veteran focused Sustainable CEA Farming pilot program that can be replicated at future VCP site locations

Sustainable CEA Farming Curriculum

The training program consists of 33 hours of lecture and hands-on instruction followed by a year-long apprenticeship. Guest speakers include specialists from MU Extension and local farmers such as Robin Moore from MyCo Planet.

During the apprenticeship, the military veterans spend 4-5 hours per week working and operating an indoor mushroom, hydroponic basil, and hydroponic strawberries (starting in 2024) farm. The military veterans learn about the time commitment of operating a CEA farm and they gain indoor farming experience. Military veterans attending the Sustainable CEA Farming Curriculum will gain knowledge in the following concepts:

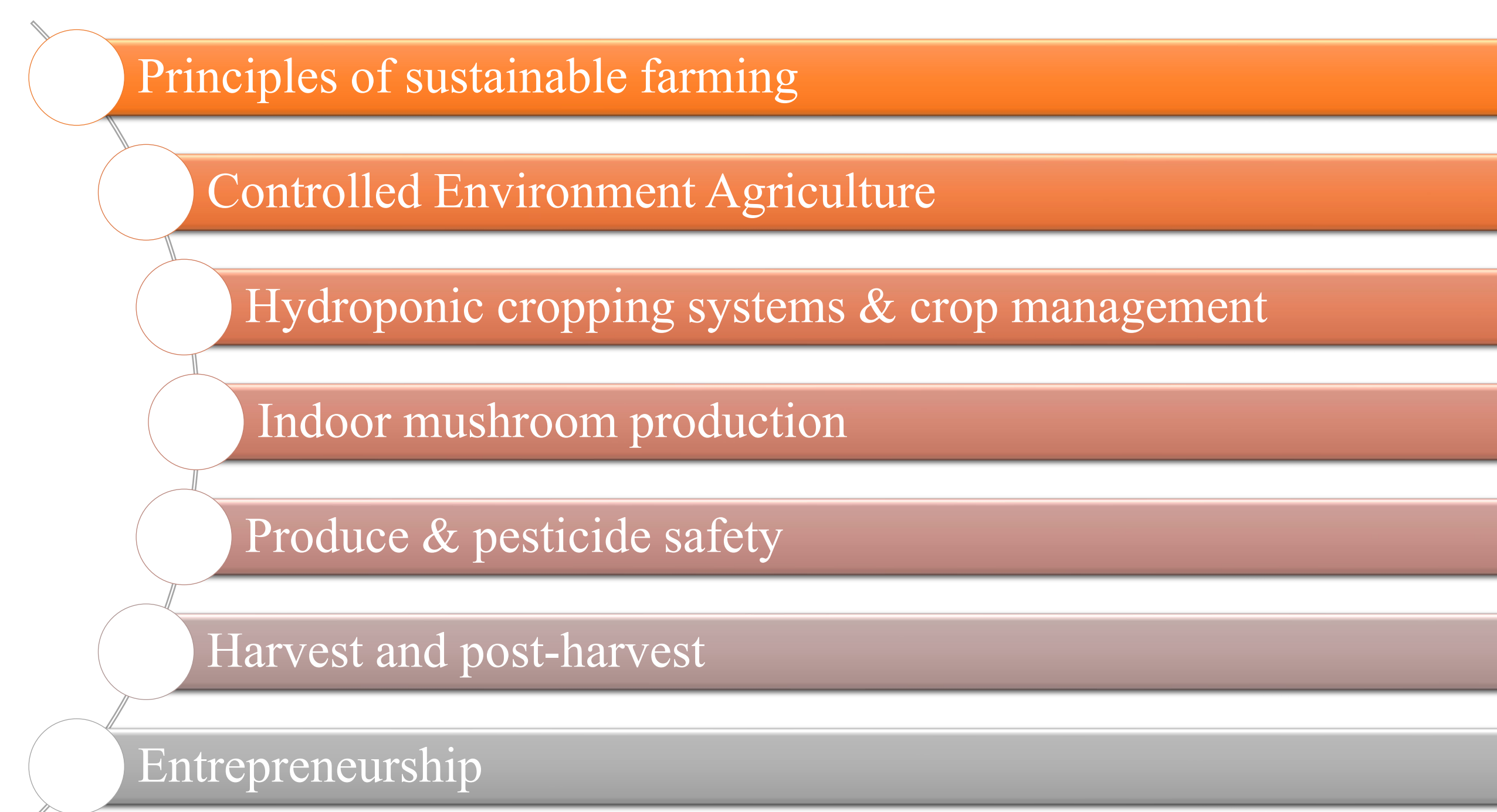


Figure 1. Core concepts taught in the Sustainable CEA Farming Curriculum

Workforce Development

The military veterans participating in the program acquire the following certificates and licenses:

- Produce Safety Alliance Certificate from the Association of Food and Drug Officials
- Missouri Private Pesticide Applicator License – MU Extension Pesticide Safety Education Program
- Entrepreneurship Certificate – Regnier Institute for Entrepreneurship and Innovation

Farm Facility

The farm is made of shipping containers retrofitted to support farming activities to produce indoor mushrooms and hydroponic basil and strawberries. A 40' container is fitted to support seedling preparation, sanitation, nutrient solution preparation and harvest activities. Three 20' containers are fitted to cultivate mushroom, basil, and strawberry crops.

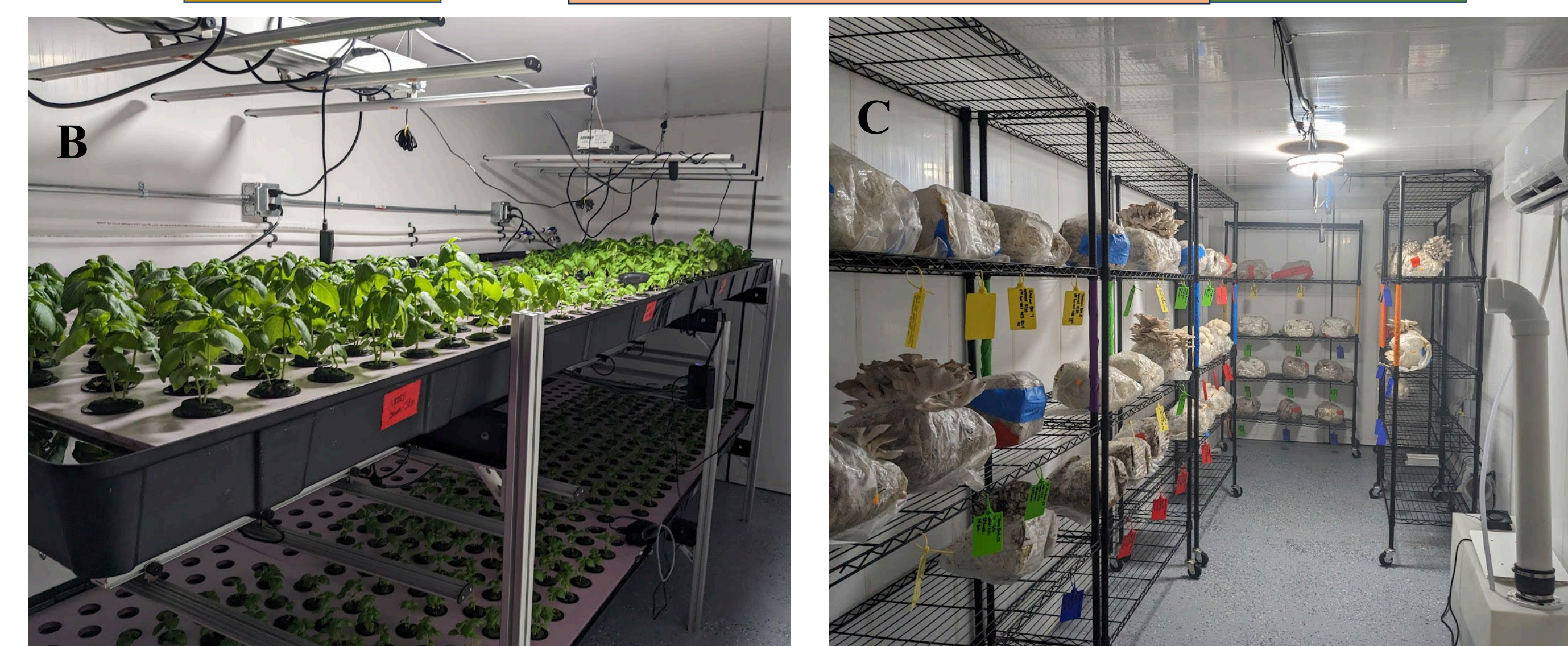
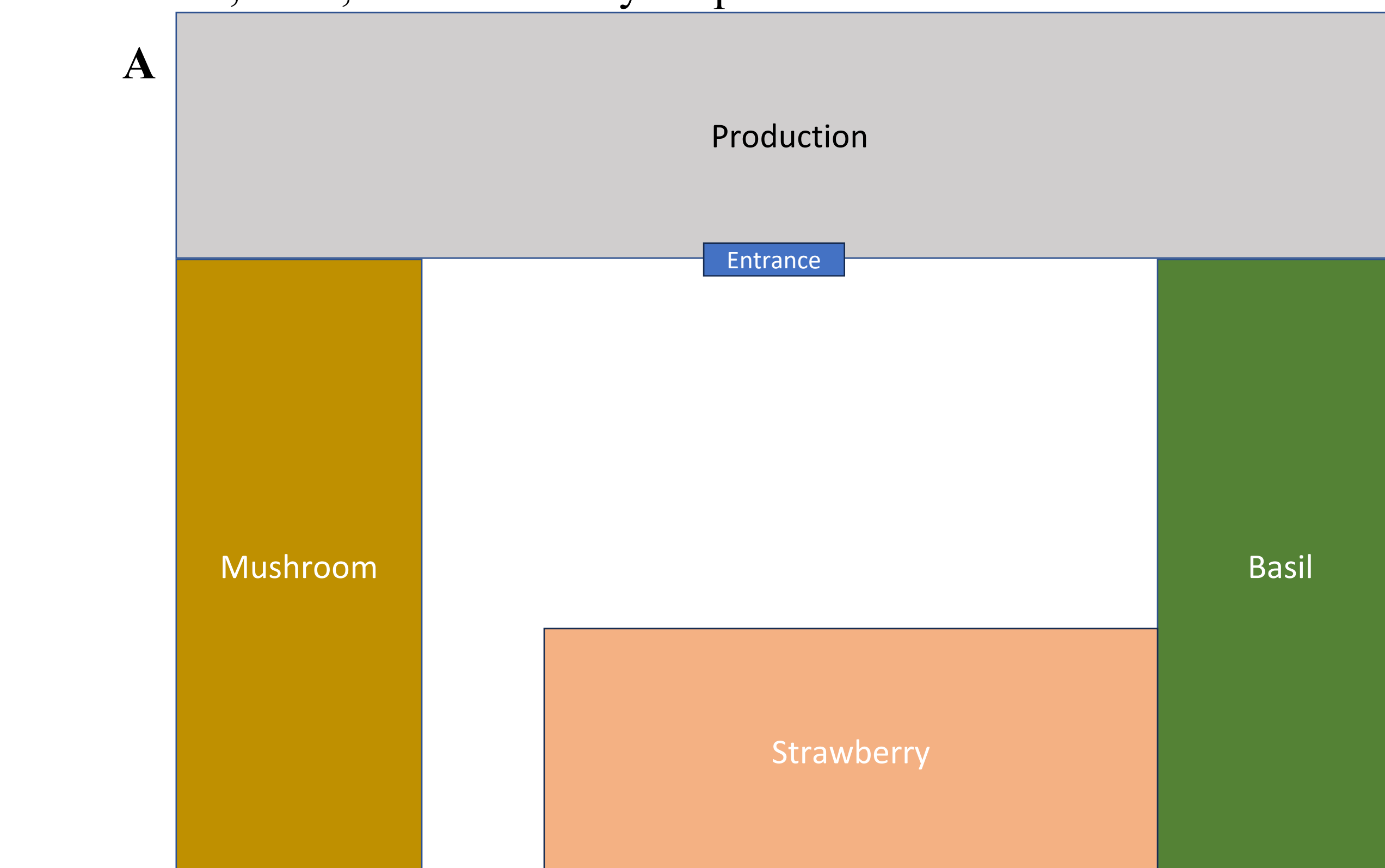


Figure 2. A Farm layout. B Hydroponic basil unit. C Indoor mushroom unit

Participant Quotes

Since 2021, three cohorts (37 veterans) have participated in the training program. This are their stories:

“This program provided me with the confidence that we are doing it the right way, and the things we’re being taught are what is supposed to happen. The more I work with plants and produce, it calms that part of me that I could never get calmed.” – Ryan

“It’s really relaxing for me. I like the idea of working with different plants, seeing what all they do. I’ve been able to get another job at an urban hydroponic farm and I’m starting classes towards an associate’s degree in agriculture.” – Tim

“Join the program if you get a chance. There is tremendous peace of mind with being able to grow your own food indoors when land is really expensive and food costs are becoming more expensive. The project is also focused on veterans and helping them succeed beyond the program. Between UMKC and VCP, I know myself and other veterans have benefited from being a part of something bigger and creating something new for Kansas City.” - Steve

“The purpose of this project is not to give any sort of employment, but meaningful employment where our military veterans can feel proud of what they are doing and can carry this experience with them long-term.” – Bryan Meyer, CEO and Co-Founder, Veterans Community Project



Figure 3. On-site demonstration of water treatment technologies for produce safety.

Learn More About The Program



Acknowledgements

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