Slide 1: Title Slide

- Workshop 1: Introduction to Urban Farming and Passive Hydroponics [Include workshop title, date, and a background image related to urban farming]

Slide 2: Introduction

- Welcome and introductions
- Overview of the workshop
- Importance of urban farming and passive hydroponics [Include an image of an urban farm or passive hydroponic setup]

Speaker Notes: Welcome, everyone! We're glad you could join us today. In this workshop, we'll learn about urban farming, its importance, and the basics of passive hydroponic systems. We'll also have a hands-on activity to set up a simple passive hydroponic system using the Kratky method. Urban farming is a sustainable and innovative way to grow food in urban environments, and passive hydroponics offers an efficient and low-maintenance approach to urban farming. The focus of this workshop and everyone in this series will be specifically on passive hydroponics.

Slide 3: Urban Farming Benefits and Challenges

- Benefits
    - Improved food security
    - Local economic growth
    - Increased access to fresh produce
    - Reduced food miles and carbon footprint
- Challenges
    - Limited space
    - Soil contamination
    - Water and nutrient management [Include images of urban farms and icons representing benefits and challenges]

Speaker Notes: Urban farming has several benefits, including improved food security, local economic growth, increased access to fresh produce, and reduced food miles and carbon footprint. However, there are challenges as well, such as limited space, soil contamination, and the need for efficient water and nutrient management.

Slide 4: Passive Hydroponics Principles and Advantages

- Principles
    - Nutrient delivery in water
    - Oxygen availability for roots
    - Absence of soil
    - Importance of the growing medium
- Advantages
    - Water efficiency
    - Less labor-intensive
    - Space optimization
    - Improved control over nutrient delivery [Include images or diagrams illustrating passive hydroponic principles and advantages]

Speaker Notes: In passive hydroponics, plants receive nutrients from a water-based solution, and their roots access oxygen directly from the air. The absence of soil reduces the risk of soilborne diseases, and a suitable growing medium provides support and moisture. Passive hydroponics offers several advantages, including water efficiency, less labor-intensive maintenance, space optimization, and improved control over nutrient delivery.

Slide 5: Types of Passive Hydroponic Systems

- Wicking systems
- Floating raft systems
- The Kratky method [Include images or diagrams of each passive hydroponic system type]

Speaker Notes: There are several types of passive hydroponic systems, including wicking systems, floating raft systems, and the Kratky method. We will discuss the principles, advantages, and disadvantages of each system, as well as provide examples of how they are used in urban farming.

Slide 6: Wicking Systems

- Principle and design
- Advantages and disadvantages
- Examples: Wicking beds and small-scale wicking containers [Include images of wicking systems]

Speaker Notes: Wicking systems work by using a wick to connect the growing medium to a nutrient reservoir, providing plants with water and nutrients. These systems are simple to set up and low-maintenance but may be limited in scalability. Examples of wicking systems include wicking beds and small-scale wicking containers.

Slide 7: Floating Raft Systems

- Principle and design
- Advantages and disadvantages
- Examples: Floating gardens and small-scale DIY raft systems [Include images of floating raft systems]

Speaker Notes: Floating raft systems support plants on floating platforms, with their roots submerged in a nutrient solution. These systems are easy to maintain and energy-efficient but may be less suitable for larger or heavy plants. Examples of floating raft systems include floating gardens and small-scale DIY raft systems.

Slide 8: The Kratky Method

- Principle and design
- Advantages and disadvantages
- Examples: Mason jar systems and larger container setups [Include images of Kratky method systems]

Speaker Notes: The Kratky method involves growing plants in containers with their roots partially submerged in a nutrient solution, allowing them to access both water and oxygen. This method is simple, low-cost, and low-maintenance but may not be suitable for all types of plants or large-scale production. Examples of the Kratky method include mason jar systems and larger container setups.

Slide 9: Hands-on Activity: Set up a Simple Passive Hydroponic System

- Materials and tools
- Steps [Include images of materials and tools, as well as step-by-step diagrams]

Speaker Notes: Now, we'll have a hands-on activity to set up a simple passive hydroponic system using the Kratky method. You'll need a mason jar or similar container, a net pot or small plastic cup with holes, a growing medium, romaine lettuce seeds, a nutrient solution, water, and materials to block light from entering the container. Follow the steps provided to create your own passive hydroponic system.

Slide 10: Conclusion

- Recap of the workshop
- Next steps and resources
- Closing remarks [Include a summary image or collage of the workshop]

Speaker Notes: Today, we learned about urban farming, passive hydroponics, and various passive hydroponic systems. We also set up a simple passive hydroponic system using the Kratky method to grow romaine lettuce. We encourage you to continue learning and experimenting with urban farming and passive hydroponics. We will provide resources, such as books, websites, and community forums, to further support your urban farming journey. Thank you for attending today's workshop, and we look forward to seeing you at future workshops.