

Introduction (5 minutes)

1. Workshop overview
2. Importance of site selection, design, and space optimization in urban farming with passive hydroponics

Factors for Site Selection and Assessment (30 minutes)

1. Sunlight and orientation
 1. Importance of sunlight for plant growth in passive hydroponic systems
 2. Assessing sunlight availability and selecting sun-loving or shade-tolerant plants
 3. Calculating sun paths and their impact on passive hydroponic systems
2. Water access and drainage
 1. Importance of water for passive hydroponics
 2. Assessing water access and drainage possibilities for passive hydroponic systems
 3. Planning for water conservation and recycling strategies
3. Space and area
 1. Assessing available space for urban farm development
 2. Identifying potential challenges and solutions in the context of passive hydroponics
 3. Estimating plant density and calculating potential yield
4. Climate and microclimate
 1. Understanding the impact of local climate on plant growth in passive hydroponic systems
 2. Identifying and creating microclimates within the urban farm for improved plant growth
 3. Exploring passive climate control techniques, such as shading and insulation

Designing an Urban Farm for Maximum Efficiency with Passive Hydroponics (35 minutes)

1. Principles of efficient urban farm design
 1. Maximizing space utilization for passive hydroponic systems
 2. Ensuring ease of access and maintenance in passive hydroponic urban farms
 3. Incorporating sustainable and eco-friendly design principles
2. Passive hydroponic system integration
 1. Selecting appropriate passive hydroponic systems for the space
 2. Incorporating passive hydroponic systems into the design
 3. Exploring vertical farming and multi-tiered options to maximize space usage
3. Plant selection and arrangement
 1. Choosing suitable plants for the passive hydroponic urban farm
 2. Considering plant compatibility and optimizing placement
 3. Understanding and applying principles of companion planting
4. Workflow and maintenance considerations
 1. Designing for efficient daily operations in passive hydroponic urban farms

2. Planning for harvesting, pest management, and other tasks
3. Implementing automation and technology to streamline processes and reduce labor
5. Addressing regulatory and zoning requirements
 1. Navigating local regulations and zoning requirements for urban farms
 2. Obtaining necessary permits and approvals for passive hydroponic urban farming projects

Conclusion (5 minutes)

1. Recap of the workshop
 1. Key takeaways from site selection, design, and space optimization in passive hydroponic urban farming
 2. Importance of efficient urban farm design with passive hydroponics for successful urban farming
2. Next steps and resources
 1. Encourage participants to apply the knowledge gained in the workshop to their own passive hydroponic urban farm projects
 2. Provide resources and support for participants' urban farming journey with passive hydroponics, such as reference materials and expert contacts
3. Closing remarks
 1. Thank participants for attending the workshop
 2. Encourage participation in future workshops and continued learning about passive hydroponic urban farming