Nursery Production and Management

Nursery Production and Management is a one-credit course designed to introduce students to the production of nursery crops. Topics include career opportunities, safety, basic plant science, plant propagation, nursery growing media, plant identification, nursery production, nursery pest control, business management, and equipment and facilities.

Content standards for this course are not intended to serve as the entire curriculum. Teachers are encouraged to expand the curriculum beyond the limits of these content standards to accommodate specific community interests and utilize local resources. This course encourages critical thinking, use of the scientific method, integration of technology, development of student leadership skills, and application of knowledge and skills related to practical questions and problems. Safety concepts are integrated into instruction to the maximum extent possible.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Career Opportunities

Students will:

1. Identify career opportunities in the nursery production and management industry.

Safety

2. Describe safety precautions related to the nursery production and management industry.

Basic Plant Science


4. Describe uses of primary, secondary, and trace nutrients.
   Examples: primary nutrients—nitrogen, phosphorus, potassium
   secondary nutrients—magnesium, calcium, sulfur
   trace nutrients—iron, manganese, boron, molybdenum, copper, zinc, chloride, aluminum

5. Interpret results of a soil analysis.
   - Differentiating among components of soil
     Examples: sand, silt, clay
   - Describing methods for adjusting pH
   - Calculating the amount of fertilizer needed for nursery crops
Plant Propagation

6. Demonstrate propagation methods for nursery plants.

Nursery Crop Growing Media

7. Adjust nursery growing media properties by adding amendments.
8. Prepare growing media mixtures for nursery plants.

Plant Identification

9. Identify nursery plants by common name.

Nursery Production

10. Control environmental conditions for plant growth in the nursery industry.  
    Examples: temperature, ventilation, water, light
11. Produce nursery crops.
12. Identify nursery plant problems.  
    Examples: root rot, insect damage, fungus
13. Select types of fertilizers and methods of application used in nursery production.

Nursery Pest Control

14. Apply pesticides to nursery crops.
    • Identifying safety and first aid precautions in nursery crop production
    • Selecting correct pesticides for intended targets in nursery crop production
    • Disposing of containers and left-over pesticide mixtures according to Environmental Protection Agency (EPA) standards in nursery crop production

Business Management

15. Select quality nursery plants for marketing.
16. Demonstrate managerial skills needed for successful operation of a nursery business.
Equipment and Facilities

17. Demonstrate maintenance of nursery crop growing facilities, including propagation structures, greenhouses, shade houses, and mist equipment.

18. Maintain power equipment used in nursery operations.