Question Bank: Elective (Turfgrass production and management)

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Turfgrass Science Basics

1. What is the definition of turfgrass?
2. Describe the difference between cool-season and warm-season grasses.
3. What are the primary functions of turfgrass in landscape and environmental management?

Turfgrass Species and Varieties

1. List five common turfgrass species used in lawns and sports fields.
2. Explain the advantages and disadvantages of using Kentucky bluegrass for home lawns.
3. Which warm-season grass is most tolerant to drought conditions and why?

Soil and Turfgrass Growth

1. Describe the ideal soil pH range for most turfgrass species.
2. What soil amendments can be used to improve soil structure for turfgrass growth?
3. Explain the role of soil aeration in turfgrass management**.**

Turfgrass Establishment and Maintenance

1. What are the key steps in establishing a new turfgrass lawn?
2. Describe the process and benefits of overseeding a lawn.
3. What are the common mowing practices for maintaining healthy turfgrass?

Irrigation and Water Management

1. Explain the concept of evapotranspiration and its significance in turfgrass irrigation.
2. What are the best practices for scheduling irrigation to optimize water use efficiency?
3. Describe the signs of drought stress in turfgrass.

Fertilization and Nutrient Management

1. What are the primary macronutrients required for turfgrass growth?
2. Explain how to interpret a soil test report for turfgrass fertilization.
3. Discuss the environmental implications of over-fertilizing turfgrass.

Pest and Disease Management

1. List three common turfgrass diseases and their symptoms.
2. Describe integrated pest management (IPM) strategies for controlling turfgrass pests.
3. What are the benefits of using biological controls in turfgrass pest management?

Environmental and Sustainable Practices

1. What are some sustainable practices for managing turfgrass in urban environments?
2. Explain the benefits of using native grasses in turfgrass management.
3. Discuss the role of turfgrass in carbon sequestration and climate change mitigation.

Turfgrass Equipment and Technology

1. What are the different types of mowing equipment used in turfgrass management?
2. How has technology improved the efficiency of turfgrass irrigation systems?
3. Describe the use of drones in monitoring turfgrass health and maintenance.

Case Studies and Practical Applications

1. Analyze the turfgrass management practices used in a major sports stadium.
2. Evaluate the challenges and solutions for managing turfgrass in a golf course environment.
3. Discuss a case study where sustainable turfgrass management practices were successfully implemented.

Sample Questions

1. What factors should be considered when selecting a turfgrass species for a particular location?
2. How does compaction affect turfgrass health and what are some methods to alleviate it?
3. What are the pros and cons of using organic fertilizers in turfgrass management?

Assessment Questions

1. **Multiple Choice:** Which nutrient is most likely to cause a deficiency in turfgrass if not available in sufficient quantities?
    - A) Nitrogen
    - B) Phosphorus
    - C) Potassium
    - D) Iron
2. **True/False:** Overwatering turfgrass can lead to shallow root growth and increased susceptibility to disease.
3. **Short Answer:** Describe three cultural practices that can help reduce weed pressure in turfgrass.

This question bank can be expanded further based on specific course content and learning objectives.