



## ***CUSTOMIZED ASSESSMENT BLUEPRINT***

### **NATURAL RESOURCES MANAGEMENT**

**Test Code: 8993**

**Version: 01**

**Preliminary Blueprint - final version is subject to slight changes.**

#### **Specific competencies and skills tested in this assessment:**

##### **Foundations of Agriculture, Food, and Natural Resources**

Demonstrate understanding of agribusiness (e.g., SAE, expenses)  
Demonstrate understanding of animal systems (e.g., breeds of livestock, anatomy)  
Demonstrate understanding of agriculture innovation and technology  
Demonstrate understanding of food products and processing (e.g., protein sources, food preservation)  
Demonstrate understanding of natural resources (e.g., renewable resources)  
Demonstrate understanding of plant systems (e.g., plant parts, processes, soil)  
Demonstrate understanding of power, structural, and technical systems (e.g., measurement)  
Demonstrate knowledge of leadership development through FFA (e.g., motto, parliamentary procedure, official dress)

##### **Soil and Land Management**

Demonstrate understanding of soil erosion and conservation (e.g., horizon, contour planting)  
Exhibit knowledge of spatial tools such as Geographic Information Systems (GIS) and Global Positioning Systems (GPS) and their use in resource management (e.g., satellite links, waypoint)  
Display knowledge of topographic and aerial maps, soil surveys, and soil test results (e.g., benchmark elevation, pH, slope)

##### **Water Management**

Demonstrate understanding of the hydrologic cycle (e.g., water holding capacity, acid rain)  
Exhibit knowledge of watersheds and aquatic ecosystems, (i.e., wetlands, ponds, streams) including wetland functions (e.g., eutrophication, Clean Water Act, water quality)  
Recognize aspects of aquifers and groundwater protection (e.g., soil drainage, manure nutrients)  
Identify point and non-point source pollution (e.g., riparian buffers)

##### **Forest Management**

Define basic forestry concepts (e.g., site index, tree biology, forest measurements tolerant tree species)  
Display knowledge of dendrology (e.g., simple and compound leaves, samara)  
Recognize and define best management practices in forestry and state BMP regulations (e.g., prescribed burns)

*Natural Resources Management (continued)*

**Wildlife Management**

Demonstrate understanding of wildlife management practices (e.g., border cutting, wetland habitat, fall mast production)

**Environmental Laws and Government Agencies**

Exhibit knowledge of environmental regulations and laws (e.g., timber management, protection of imperiled species)

**Agricultural Innovation, Technology, and Entrepreneurship**

Define and recognize aspects of sustainability (e.g., biodiesel)

Identify aspects of the impact of international agriculture on U.S. and global natural resources (e.g., cost and availability, entrance of new species into country)

*Natural Resources Management (continued)*

**Knowledge-Based Assessment:**

Administration Time: 2 hours

Number of Questions: 102

***Areas covered:***

39%	Foundations of Agriculture, Food, and Natural Resources
12%	Soil and Land Management
13%	Water Management
13%	Forest Management
11%	Wildlife Management
6%	Environmental Laws and Government Agencies
6%	Agricultural Innovation, Technology, and Entrepreneurship

***Sample Questions:***

Agricultural innovations have allowed farmers to

- A. eliminate the use of chemical fertilizers
- B. increase the use of chemical fertilizers
- C. produce more crops on less land
- D. produce fewer crops on more land

FFA business meetings are run using an established set of rules known as

- A. Business Rules
- B. Meeting Rules
- C. Parliamentary Procedures
- D. Business Procedures

Which kind of erosion removes a thin layer of soil?

- A. splash
- B. sheet
- C. rill
- D. gully

Forest wetlands are particularly important habitats for which of the following?

- A. fish
- B. reptiles
- C. amphibians
- D. mussels

Biodiesel is an alternative fuel usually made from animal fats or

- A. biomass
- B. simple sugars
- C. vegetable oils
- D. starches