



West Virginia DEPARTMENT OF  
**EDUCATION**

**NOCTI**  
Partner Credential Blueprint



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# **Agribusiness Systems (WV)**

Code: 8998 / Version: 01  
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## General Assessment Information

### Blueprint Contents

General Assessment Information  
Written Assessment Information

Specific Competencies Covered in the Test  
Sample Written Items

**Test Type:** The Agribusiness Systems assessment was developed based standards used in the State of West Virginia and contains a knowledge-based component. This assessment is meant to measure technical skills at the occupational level and includes items which gauge factual and theoretical knowledge.

**Revision Team:** The assessment content is based on input from West Virginia educators who teach in career and technical education programs.



01.0000 Agriculture,  
General



Career Cluster 1 - Agriculture, Food  
& Natural Resources



11-9013.03 Aquacultural  
Managers

## Written Assessment

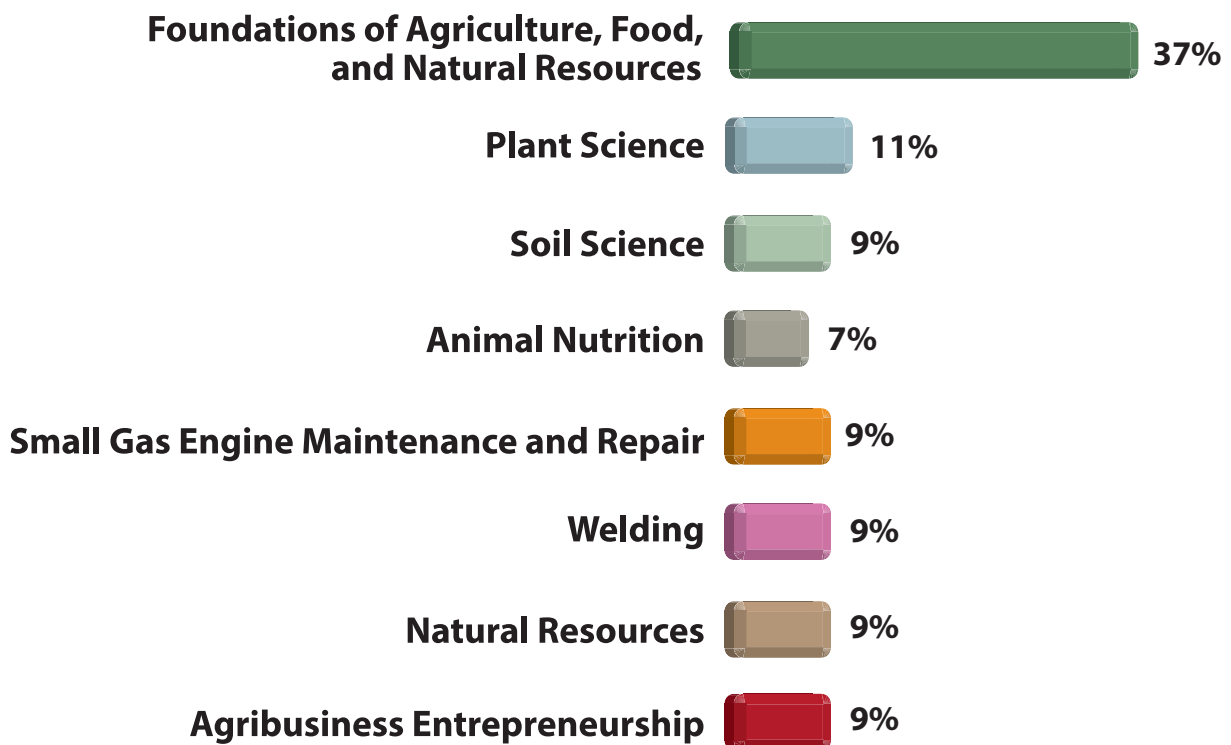
This written assessment consists of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 2 hours

**Number of Questions:** 107

**Number of Sessions:** This assessment may be administered in one, two, or three sessions.

### Areas Covered



## Specific Standards and Competencies Included 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)

### **Plant Science**

- Identify plants (e.g., herbaceous plants, systematic classification, annual plants)
- Identify plant diseases (e.g., crop disease, crop rotation)
- Describe entomology (e.g., steps of metamorphosis, IPM)

### **Soil Science**

- Identify components of soil (e.g., soil texture, soil horizon)
- Demonstrate knowledge of soil nutrients (e.g., soil pH, calculate amounts of fertilizer, eutrophication)
- Describe land capability use (e.g., land capability class, soil management practices)

### **Animal Nutrition**

- Determine nutritional needs of livestock (e.g., essential nutrients, protein, calculate feed, Pearson Square)
- Differentiate forage production (e.g., carrying capacity)

### **Small Gas Engine Maintenance and Repair**

- Discuss cycles of a small engine (e.g., 2-cycle engines, cycles of 4-stroke engines)
- Identify small engine parts (e.g., seals, engine components)
- Demonstrate knowledge of small engine maintenance (e.g., service manuals, fluid levels)

*(Continued on the following page)*

## Standards and Competencies (continued)

### **Welding**

- Understand welding-related safety (e.g., welding ventilation, welding PPE)
- Identify types of welding joints (e.g., types of weld joints)
- Discuss welder set-up and process (e.g., electrodes)

### **Natural Resources**

- Define natural resources and ecosystems (e.g., biomes in West Virginia, forest wetlands, ecology)
- Recognize methods of identifying trees, wildlife, and aquatic species (e.g., macro invertebrate species, fish species, predators)
- Demonstrate knowledge of forest and wildlife management (e.g., animal population)

### **Agribusiness Entrepreneurship**

- Discuss elements of entrepreneurship (e.g., invoice calculation, fixed costs)
- Interpret marketing principles (e.g., calculate product profit, supply and demand, value-added products, four P's of marketing)



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## 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 of the following engines below is generally a 2-cycle engine?**

- A. automobile
- B. tractor
- C. motorcycle
- D. chainsaw

**A short weld used for temporarily holding metal in place is called a**

- A. spacer weld
- B. temporary fusion weld
- C. tack weld
- D. temporary braze weld

**Which of the following products is a value-added product?**

- A. sweet corn
- B. cucumbers
- C. pickles
- D. strawberries