

Agricultural Technology (2021-)

Assess agricultural technology and how it relates to modern agriculture. [AFNR.HS.8.1](#)

- a** Identify a variety of agricultural technologies used in production agriculture (e.g., livestock, agronomy, agribusiness, horticulture). [AFNR.HS.8.1.A](#)
- b** Compare historical technologies and how agriculture changed through different revolutions. [AFNR.HS.8.1.B](#)
- c** Discuss how technologies relate and interact with modern agriculture. [AFNR.HS.8.1.C](#)

Identify the components of the Global Positioning Systems (GPS). [AFNR.HS.8.2](#)

- a** Describe the design of GPS. [AFNR.HS.8.2.A](#)
- b** Identify factors influencing GPS accuracy and potential uses/applications. [AFNR.HS.8.2.B](#)
- c** Utilize GPS to solve problems in the agricultural industry. [AFNR.HS.8.2.C](#)
- d** Describe steps to install, maintain, and service instrumentation and equipment used for precision technologies. [AFNR.HS.8.2.D](#)
- e** Identify various precision technologies in planning crop production (e.g., precision soil sampling techniques, variable rate applications, precision planting applications) [AFNR.HS.8.2.E](#)

Demonstrate Geographic Information Systems (GIS) Software. [AFNR.HS.8.3](#)

- a** Utilize GIS software to create, analyze, and edit production maps. [AFNR.HS.8.3.A](#)
- b** Analyze the economic impact of using GIS and other geospatial technologies. [AFNR.HS.8.3.B](#)
- c** Classify data for usage in GIS software. [AFNR.HS.8.3.C](#)

Utilize legal description and mapping data. [AFNR.HS.8.4](#)

- a** Analyze methods of describing and locating land. [AFNR.HS.8.4.A](#)
- b** Differentiate types of legal description (e.g., Rectangular Government Survey, Metes and Bounds, Lot/Block Numbering on a Plat Map). [AFNR.HS.8.4.B](#)
- c** Demonstrate the ability to locate land using GPS, GIS, and/or Legal Descriptions. [AFNR.HS.8.4.C](#)

Compare and contrast current Unmanned Aerial vehicles and drone systems. [AFNR.HS.8.5](#)

- a Identify how UAV's are utilized in many different areas of agriculture.** [AFNR.HS.8.5.A](#)
- b Identify the government rules and regulations associated with UAV's for making man agement decisions within the agriculture sector.** [AFNR.HS.8.5.B](#)
- c Classify different types of drones and how they are used.** [AFNR.HS.8.5.C](#)

Identify precision agriculture technology. [AFNR.HS.27.1](#)

- a Identify various precision agriculture equipment and their uses within the industry.** [AFNR.HS.27.1.A](#)
- b Identify historical and current modes of precision agriculture.** [AFNR.HS.27.1.B](#)
- c Identify Global Navigation Satellite Systems and components.** [AFNR.HS.27.1.C](#)

Identify the different hardware components of precision agriculture. [AFNR.HS.27.2](#)

- a Define the electrical and hydraulic key components of equipment in precision agriculture.** [AFNR.HS.27.2.A](#)
- b Identify factors influencing GPS accuracy and potential uses/applications.** [AFNR.HS.27.2.B](#)
- c Apply GPS to solve problems in the agricultural industry.** [AFNR.HS.27.2.C](#)
- d Install, maintain, and service instrumentation and equipment used for precision technologies.** [AFNR.HS.27.2.D](#)
- e Identify various precision technologies in planning crop production activities (e.g., Precision soil sampling techniques, variable rate applications, precision planting applications.)** [AFNR.HS.27.2.E](#)

Utilize precision agriculture software to help make management decisions. [AFNR.HS.27.3](#)

- a Utilize various softwares to create, analyze, and edit production maps.** [AFNR.HS.27.3.A](#)
- b Synthesize the economic impact of using GIS and other geospatial technologies.** [AFNR.HS.27.3.B](#)
- c Classify data for usage in agricultural-based softwares.** [AFNR.HS.27.3.C](#)

Utilize precision technology in livestock production. [AFNR.HS.27.4](#)

- a Analyze precision technology available in the livestock industry.** [AFNR.HS.27.4.A](#)

Utilize data acquired from precision devices to assist in management decisions of the livestock. [AFNR.HS27.4.B](#)

- c Compare data from breed associations to numerical information acquired from local or area data.** [AFNR.HS.27.4.C](#)
- d. Summarize the technology behind Genomic Enhanced Expected Progeny Difference.** [AFNR.HS27.4.D](#)