Nebraska CTE

Animal Science (2023)

Analyze historic and current trends impacting the animal system industry. AFNR.HS.11.1	a	**Identify and summarize the origin, significance, distribution, and domestication of different animal species.** AFNR.HS.11.1.A
	b	**Compare and contrast animal production methods for use in animal systems based upon their effectiveness and impacts.** AFNR.HS.11.1.B
	c	**Research and summarize major components of animal systems (e.g., livestock, companion animals).** AFNR.HS.11.1.C
Evaluate animals based on anatomical and physiological characteristics. AFNR.HS.11.2	a	**Classify animals according to taxonomic classification systems and use (e.g., companion, production).** AFNR.HS.11.2.A
	b	**Identify and summarize the properties, locations, functions, and types of animal cells, tissues, organs, and body systems.** AFNR.HS.11.2.B
	c	**Apply knowledge of anatomical and physiological characteristics of animals to select animals for specific purposes (e.g., meat animals, breeding animals, seedstock.** AFNR.HS.11.2.C
Critique best-practice protocols based upon animal behaviors for animal husbandry and welfare. AFNR.HS.11.3	a	**Explain the implications of animal welfare and animal rights for animal systems.** AFNR.HS.11.3.A
	b	**Summarize the challenges involved in working with animals and resources available to overcome them (e.g., tools, technology, equipment, facilities, animal behavior signals).** AFNR.HS.11.3.B
	c	**Evaluate animal welfare procedures used to ensure safety and maintain low stress when moving and restraining animals.** AFNR.HS.11.3.C
Apply reproductive principles to animal selection, breeding, and production. AFNR.HS.11.4	a	**Identify and categorize reproductive organs of major animal species.** AFNR.HS.11.4.A
	b	**Identify and summarize inheritance and terms related to inheritance within animal breeding (e.g., dominant, co-dominant,recessive, homozygous, heterozygous).** AFNR.HS.11.4.B
	c	**Compare and contrast various breeding systems (e.g., artificial insemination, mbryo transfer, hand breeding).** AFNR.HS.11.4.C
		ssess and describe factors that lead to reproductive maturity. AFNR.HS.11.4.D

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	e Evaluate and select animals for reproductive readiness. AFNR.HS.11.4.E
Analyze the nutritional needs of animals. AFNR.HS.11.5	**a** Identify and summarize essential nutrients required for animal health. AFNR.HS.11.5.A
	b Analyze each nutrient's role in growth and performance. AFNR.HS.11.5.B
	c Differentiate between nutritional needs of animal species based on a variety of factors (e.g., types of digestive systems, production goals, management system, growth stage, reproductive stage). AFNR.HS.11.5.C