Texas CTE

Livestock and Poultry Production, Adopted 2024

Knowledge and skills. LPP

1 The student develops a supervised agricultural experience program. The student is expected to: LPP.1

- A plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity; and LPP.1A
- B use appropriate record-keeping skills as they relate to the supervised agricultural experience program. LPP.1B

2 The student develops leadership skills through participation in an agricultural youth organization. The student is expected to: LPP.2

- A participate in youth agricultural leadership opportunities; LPP.2A
- B review and participate in a local program of activities; and LPP.2B
- C create or update documentation of relevant agricultural experience such as community service, professional, or classroom experiences. LPP.2C

3 The student analyzes the history, domestication, and selection of livestock and poultry. The student is expected to: LPP.3

- A research and describe the history, domestication, and evolution of livestock and poultry species; LPP.3A
- B describe the impacts other industries such as entertainment, recreation and leisure, and exhibition of animals have on the livestock and poultry industry; and LPP.3B
- C evaluate and select livestock and poultry breeds based on purpose and conformation. LPP.3C

4 The student explains the anatomy and physiology of livestock and poultry species. The student is expected to: LPP.4

- A identify and explain the skeletal, muscular, respiratory, and circulatory systems of livestock and poultry; LPP.4A
- B identify and interpret ranges for healthy livestock and poultry vital signs; and LPP.4B
- C compare normal and abnormal behavior of livestock and poultry. LPP.4C

5 The student determines nutritional requirements of livestock and poultry. The tudent is expected to: LPP.5

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A describe and compare the digestive systems of ruminant and non-ruminant animals; LPP.5A

B identify sources of nutrients and classes of feed for livestock and poultry; LPP.5B

C identify vitamins, minerals, and feed additives for livestock and poultry; LPP.5C

D formulate feed rations based on nutritional needs and economic factors for livestock and poultry; LPP.5D

E research and discuss feeding practices and feed quality issues for livestock and poultry; LPP.5E

F identify forage plants used for livestock grazing; and LPP.5F

G research and explain livestock and poultry grazing practices such as rotational grazing and deferred grazing. LPP.5G

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6 The student explains livestock and poultry genetics and reproduction. The student is expected to: LPP.6

A describe and compare the reproductive systems of various livestock and poultry; LPP.6A

B identify and explain livestock and poultry breeding systems such as grading up, crossbreeding, line-breeding, and inbreeding; LPP.6B

C use Expected Progeny Differences (EPDs) to evaluate livestock production; LPP.6C

D research and explain current and emerging technologies in livestock and poultry reproduction such as cloning, embryo transfer, in vitro fertilization, and artificial insemination; LPP.6D

E use Punnett squares to predict phenotypes and genotypes of livestock offspring; and LPP.6E

F explain the relationship between body condition scores and reproductive efficiency for livestock and poultry. LPP.6F

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7 The student understands how livestock and poultry are affected by pests and diseases. The student is expected to: LPP.7

A identify and describe how bacteria, fungi, viruses, genetics, and nutrition affect livestock and poultry health; LPP.7A

B identify signs, symptoms, and prevention of livestock and poultry diseases; LPP.7B

C identify parasites and explain the signs, symptoms, treatment, and prevention of livestock and poultry parasites; and LPP.7C

D calculate dosage and identify administration methods of livestock and poultry medications. LPP.7D

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8 The student analyzes the management skills needed for livestock and poultry production. The student is expected to: LPP.8

A identify tools and equipment for safe handling and restraining of livestock and poultry and select the appropriate tools or equipment for such tasks and purposes; LPP.8A

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B identify types and essential features of facilities for livestock and poultry such as housing, veterinary, and reproduction facilities; LPP.8B

C evaluate and describe industry practices such as dehorning, castrating, docking, and vaccinating and sire, dam, and newborn care to maximize the efficiency of livestock and poultry; LPP.8C

D explain and demonstrate methods of identifying ownership of livestock and poultry such as branding, ear tagging, ear notching, wing bands, and tattooing; and LPP.8D

E explain the use of technology such as aircraft, robotics, and smart irrigation in modern livestock and poultry production. LPP.8E

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9 The student examines the interrelationship of the factors impacting livestock and poultry production operations. The student is expected to: LPP.9

A research and explain livestock and poultry biosecurity and waste management practices; LPP.9A

B create an effective financial management plan for a livestock and poultry production operation; LPP.9B

C analyze and discuss environmental regulations, governmental regulations, and animal welfare policies related to livestock and poultry production; LPP.9C

D analyze the United States Department of Agriculture (USDA) standards and guidelines for organic livestock and poultry production; LPP.9D

E analyze and describe the interrelationship between grain markets and the livestock and poultry industry; LPP.9E

F assess the impact of the United States livestock and poultry industry on world commodity markets; LPP.9F

G use charts, tables, data, or graphs to evaluate the efficiency of livestock and poultry production; and LPP.9G

H develop and present a livestock or poultry operation plan that includes health, reproduction, nutrition, and management practices necessary for maximum efficiency. LPP.9H