

Goat

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Breeds

- Identify the advantages and disadvantages of the following major breeds: Boer, Spanish, Kiko, Tennessee Fainting, Pygmy, Alpine, American Cashmere, Angora, Lamancha, Nubian, Oberhasli, Saanen, Toggenburg.
- Describe the benefit of cross-breeding in a commercial goat operation.
- Identify the breeds that would be best utilized in a given breeding program, as defined by a scenario.

External and Skeletal Parts, Confirmation and Structure

- Label all 27 skeletal parts of goats.
- Match desirable traits with the comparable animal value.

Health and Disease

- Differentiate between the biosecurity practices used for animals raised in a pasture setting and those raised in confinement facilities.
- Differentiate between modified-live and killed virus vaccines.
- Demonstrate your ability to administer subcutaneous and intramuscular injections.
- Outline a comprehensive vaccination protocol.
- Demonstrate your ability to handle and store antibiotics, needles, syringes and vaccines.
- Define the following terms: adjuvant, anthelmintic, anticoagulant, antigen, antimicrobial resistance, fecal egg count, immunology, immunoglobulin, innate immune system, over-the-counter, prescription, prophylactic and veterinary feed directive.
- Describe and distinguish between the following diseases and conditions: coccidiosis, enterotoxaemia, acidosis, pregnancy toxemia, ketosis, tetanus, foot rot, pneumonia, caprine arthritis-encephalitis, soremouth, pinkeye, white muscle disease, black leg, bloat, scours, Johne's disease, caseous lymphadenitis, floppy kid syndrome, listeriosis, mastitis, navel ill.
- Describe cause of and treatment for the following metabolic disorders: acidosis, bloat.
- Demonstrate your ability to apply an ear tag, ear tattoo and Scrapie tag.



Equipment and Records

- Develop an equipment inventory that you would need to start either a commercial or purebred herd or a feeding operation.

Nutrition and Feeding

- Assess the nutritional characteristics of the following forages and feedstuffs: bakery byproduct, bermudagrass, bluegrass, brewer's grains, candy byproduct, corn gluten meal, cracked corn, dallisgrass, feather meal, fish meal, high-moisture corn, hominy feed, limestone, peanut skins, poultry litter, red clover, sodium bicarbonate, steam-flaked barley, steam-flaked corn, steam-rolled oats, urea, white clover.
- Differentiate between the following feed types or manufacturing processes: cracking, crumbling, cubing, extrusion, grinding, meal (ground), milk replacer, pellet, pelleting, roasting, steam-flaking and texturized.
- Design a feed and water plan for goats.
- Calculate feed efficiency.
- Complete Pearson-square ration formulation with two feedstuffs.
- Define the following nutrients or nutrient analyses: acid detergent fiber, acid detergent lignin, cellulose, fat-soluble vitamins, hemicellulose, lignin, macrominerals, metabolizable protein, microminerals, net energy for maintenance, net energy for gain, neutral detergent fiber, non-protein nitrogen, rumen degradable protein, rumen undegradable protein, and water-soluble vitamins.
- Develop educational materials for younger 4-H members to learn about nutrition and feeding requirements for goats.

Genetics and Reproduction

- Explain heterosis and breed complementarity and their impact upon goat breeding.
- Determine when it is most appropriate to select or crossbreed for improvement in specific traits.
- Distinguish between structure and function of the following components of a reproductive tract, and to which sex they correspond: corpus albicans, corpus hemorrhagicum, corpus luteum, epididymis, follicle, oocyte, oviduct, retractor penis muscle, scrotum, spermatic cord, spermatocyte, uterine body, uterine horn and vagina.
- Define and describe the role of the following reproductive hormones: estrogen, gonadotropin releasing hormone, luteinizing hormone, oxytocin, progesterone, prostaglandin F₂alpha and testosterone.
- Define and distinguish between the following reproductive strategies, tools and technologies: artificial insemination, breeding soundness exam, cryopreservation, defined breeding season, embryo transfer, estrous synchronization, in-vitro fertilization, natural service, semen morphology, semen motility.

Livestock Judging

- Orally give a set of reasons for breeding and market classes using correct terminology and transition words.

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