**ВІДОКРЕМЛЕНИЙ ПІДРОЗДІЛ**

**НАЦІОНАЛЬНОГО УНІВЕРСИТЕТУ БІОРЕСУРСІВ**

**І ПРИРОДОКОРИСТУВАННЯ УКРАЇНИ**

**«НІЖИНСЬКИЙ АГРОТЕХНІЧНИЙ ІНСТИТУТ»**

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**МЕТОДИЧНІ ВКАЗІВКИ**

**З ВИВЧЕННЯ ІНОЗЕМНОЇ МОВИ ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ**

# для студентів факультету агротехнологій та економіки

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# Методичні вказівки з вивчення іноземної мови за професійним спрямуванням для студентів факультету агротехнологій та економіки ОС «Бакалавр» спеціальності 204 «Технологія виробництва і переробки продукції тваринництва» (Частина 2) / Укладач: О.В. Безпала.- Ніжин, 2024.- 55с.

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Методична розробка містить базові тексти зі спеціальності, лексичні вправи ~~з граматики~~ , матеріал для розвитку усного мовлення та підготовки до складання іспиту з іноземної мови за професійним спрямуваннямі для загального розвитку студентів факультету агротехнологій та економіки.

**INTRODUCTION TO ANIMAL HUSBANDRY**

Animal husbandry is a broad field with several specialized branches, each focusing on different types of livestock and their management. Here are the key branches:

1. **Dairy Farming**: this branch focuses on the breeding and management of dairy cattle to produce milk and dairy products. It includes improving milk yield, quality, and the health and welfare of dairy cows.
2. **Poultry Farming**: involves raising chickens, turkeys, ducks, and other birds for meat (broilers) or eggs (layers). Key aspects include managing nutrition, disease control, and housing conditions.
3. **Beef Cattle Farming**: centers on the production of cattle for meat. It includes selecting breeds for desirable meat traits, optimizing feed, and managing growth and health.
4. **Sheep Farming**: encompasses the management of sheep for wool, meat (lamb or mutton), or milk. It includes breeding for specific traits, pasture management, and wool harvesting.
5. **Rabbit Farming**: involves raising rabbits for meat, fur, or as pets. It includes breeding for desirable traits, housing management, and ensuring proper nutrition and health care.
6. **Pig Farming**: focuses on raising pigs for meat (pork). This branch involves breeding, feed formulation, and managing pig health and growth.
7. **Aquaculture**: the farming of fish, crustaceans, and other aquatic organisms. It covers aspects such as breeding, feeding, disease management, and maintaining water quality in controlled environments.
8. **Horse Breeding and Management**: includes the care and breeding of horses for work, sport, or leisure. It involves selecting for specific traits, training, and health management.
9. **Specialty Livestock**: involves the management of less common animals like alpacas, llamas, and exotic pets. Each has unique care requirements and purposes, such as fiber production or companionship.
10. **Pasture and Forage Management**: focuses on the cultivation and maintenance of grasses and other plants that animals graze on. This branch is crucial for optimizing animal nutrition and promoting soil health.
11. **Animal Health and Veterinary Science**: involves the prevention, diagnosis, and treatment of diseases in livestock. It includes vaccination programs, disease surveillance, and improving animal welfare.

Each branch of animal husbandry requires specialized knowledge and practices to ensure the health, productivity, and well-being of the animals, as well as sustainability and efficiency in production.

**UNIT 1**

**DAIRY FARMING**

**Dairy Farming: Understanding the Basics**

Dairy farming is a vital part of agriculture, focusing on raising cows to produce milk and dairy products. The cow, a ruminant animal, plays a crucial role in this industry due to its remarkable ability to convert large amounts of roughage into nutritious milk and meat.

**Digestive System of the Cow**

Cows have a unique digestive system with a compound stomach divided into four compartments: the rumen, reticulum, omasum, and abomasum. This complex stomach allows them to efficiently process fibrous plant material. Depending on the size of the cow, the stomach can hold between 25 to 50 gallons (150 to 300 pounds) of content, enabling them to digest large quantities of feed.

**Milk Production and Care**

For cows to produce a substantial amount of rich milk, they need to be well-fed and possess good milking qualities. Proper nutrition is crucial, and cows require more water than growing animals, especially when they are lactating. During the lactation period, which typically lasts about ten months after each calf, dairy cows need a significant amount of water to maintain milk production.

The period of gestation for a cow is around 40 weeks. After calving, the first milk produced is called colostrum. This milk is essential for the calf as it provides necessary antibodies and has a laxative effect that helps clear the calf’s stomach.

**Milking Routine**

Dairy cows are typically milked three times a day to ensure consistent milk production and quality. They are also watered twice a day, but in the summer, their water intake increases due to higher evaporation rates from their skin.

In summary, dairy farming requires careful management of the cow's diet, hydration, and milking schedule to ensure a steady supply of high-quality milk. By understanding and optimizing these factors, dairy farmers can effectively support the health and productivity of their herds.

**Task 1. True or false**

1. The cow’s stomach has three compartments: rumen, reticulum, and abomasum.
2. A cow’s stomach can hold between 25 to 50 gallons of content, depending on the size of the animal.
3. Colostrum is the first milk produced after calving and is important for the calf’s immune system.
4. Dairy cows are typically milked twice a day to maintain milk production.
5. During the lactation period, which lasts about ten months, cows require less water than during their growing years.
6. The gestation period for cows is approximately 40 weeks.
7. Dairy cows’ water consumption increases during the summer due to higher evaporation rates from their skin.
8. The cow’s stomach has a simple structure with only one compartment.
9. The amount of milk produced by a cow can be influenced by its diet and overall health.
10. After calving, the milk known as colostrum is not necessary for the calf and can be discarded.

**Task 2. Fill in the gaps**

1. The cow’s stomach is divided into four compartments: rumen, reticulum, \_\_\_\_\_\_\_\_, and abomasum.

a) omasum

b) jejunum

c) cecum

d) duodenum

2. The stomach capacity of a mature cow can range from \_\_\_\_\_\_\_\_ gallons, depending on the size of the animal.

a) 10 to 20

b) 25 to 50

c) 5 to 15

d) 30 to 60

3. Colostrum is the first milk produced after calving and is important because it provides \_\_\_\_\_\_\_\_ to the calf.

a) nutrients

b) fiber

c) antibodies

d) vitamins

4. Dairy cows are typically milked \_\_\_\_\_\_\_\_ times a day to ensure consistent milk production.

a) two

b) three

c) four

d) five

5. During the lactation period, which lasts about ten months, dairy cows require \_\_\_\_\_\_\_\_ water than they did during their growing years.

a) less

b) the same amount of

c) more

d) no

6. The gestation period for cows is approximately \_\_\_\_\_\_\_\_ weeks.

a) 30

b) 40

c) 50

d) 60

7. In the summer, the water consumption of dairy cows \_\_\_\_\_\_\_\_ due to increased evaporation from their skin.

a) decreases

b) stays the same

c) increases

d) is unaffected

8. The cow’s stomach helps in digesting roughage because it has a \_\_\_\_\_\_\_\_ structure.

a) simple

b) complex

c) flat

d) single-compartment

9. A well-balanced diet for dairy cows is essential for \_\_\_\_\_\_\_\_ milk production.

a) reducing

b) increasing

c) halting

d) controlling

10. After calving, the milk called colostrum is essential for the calf because it helps \_\_\_\_\_\_\_\_ its stomach.

a) harden

b) cleanse

c) strengthen

d) enrich

**Task 3. Match the words with their definitions**

**Words**

1. Rumen
2. Colostrum
3. Lactation
4. Gestation
5. Abomasum
6. Artificial Insemination
7. Omasum
8. Reticulum
9. Milk Yield
10. Compound Stomach

**Definitions:**

a) The period during which a cow produces milk after giving birth.

b) The first milk produced after calving, rich in antibodies for the calf.

c) A method of breeding where sperm is collected and introduced to a cow’s reproductive system without natural mating.

d) The total amount of milk produced by a cow over a certain period.

e) The complex digestive system of ruminants, consisting of four compartments.

f) The period of pregnancy in cows, lasting about 40 weeks.

g) The last compartment of the cow’s stomach, also known as the "true stomach," where digestion continues.

h) The stomach compartment that helps break down feed before it moves to the omasum.

i) The compartment of the cow’s stomach where fermentation of feed occurs.

j) The compartment of the cow’s stomach that absorbs water and nutrients.

**Task 4. Answer the questions**

1. **What are the four compartments of a cow's stomach, and how do they contribute to its digestion process?**
2. **How does the capacity of a cow's stomach vary based on the size of the animal, and why is this important for dairy farming?**
3. **Why is it important for dairy cows to be well-fed and have good milking qualities for milk production?**
4. **What is colostrum, and why is it essential for a calf immediately after birth?**
5. **How does the water consumption of dairy cows change in different seasons, and why?**
6. **What is the average duration of the lactation period in dairy cows, and how does it impact milk production?**
7. **How often are dairy cows typically milked, and what is the significance of this routine for maintaining milk yield?**
8. **What role does water intake play in the overall health and milk production of dairy cows?**
9. **Describe the gestation period for cows and its implications for dairy farming.**
10. **How does the digestive system of ruminants, specifically the cow, enable them to convert roughage into milk and meat?**

**UNIT 2**

**POULTRY FARMING**

1. Adequate - достатній
2. Aspiring agriculturists – аграрії, які прагнуть кращих змін
3. Avian husbandry - птахівництво
4. Balanced diets - збалансовані дієти
5. Barn - сарай
6. Biosecurity measures - заходи біобезпеки
7. Breeds - породи
8. Cage systems - кліткові системи
9. Captivating - захоплюючий
10. Carbohydrates - вуглеводи
11. Disease prevention - профілактика захворювань
12. Economic considerations - економічні обставини
13. Egg production - виробництво яєць
14. Eggs - яйця
15. Embark - розпочати
16. Environmental stewardship - екологічна опіка
17. Essential nutrients - необхідні поживні речовини
18. Feathers - перо
19. Feeding practices - практики годування
20. Flocks - зграї
21. Formulating - складання
22. Free-range - вільний вигул
23. Global agriculture - світове сільське господарство
24. Growth - ріст
25. Health management - управління здоров'ям
26. Housing - утримання
27. Immense significance - величезне значення
28. Initial investment costs - початкові інвестиційні витрати
29. Lighting - освітлення
30. Management systems - системи управління
31. Market fluctuations - ринкові коливання
32. Meat - м'ясо
33. Minerals - мінерали
34. Nesting areas - місця для гніздування
35. Nutrition - живлення
36. Ongoing operational expenses - постійні оперативні витрати
37. Perches - перчатки
38. Poultry farming - птахівництво
39. Primer - посібник
40. Productivity - продуктивність
41. Protein - білок
42. Sustainable production - стале виробництво
43. Temperature control - контроль температури
44. Ventilation - вентиляція
45. Vital source - важливий джерело
46. Vitamins - вітаміни
47. Waste management - управління відходами
48. Water usage - використання води
49. Welcome - ласкаво просимо
50. Welfare - добробут

Introduction. Welcome to the captivating world of poultry farming! As aspiring agriculturists, you are about to embark on a journey that delves into the intricate realms of avian husbandry. Poultry, encompassing chickens, turkeys, ducks, and other domesticated birds, holds immense significance in global agriculture, providing a vital source of meat, eggs, and even feathers. In this primer, we shall explore the fundamental aspects of poultry farming, from breeds and housing to nutrition and health management.

1. **Understanding Poultry Breeds:** poultry breeds vary widely, each possessing unique characteristics suited for specific purposes. From the prolific egg-layers like Leghorns to the robust meat producers such as Cornish Cross, a diverse array of breeds exists to cater to different production needs. Understanding the traits, behavior, and suitability of various breeds is crucial for successful poultry farming endeavors.
2. **Housing and Management Systems**: proper housing and management systems are pivotal for ensuring the welfare and productivity of poultry flocks. Whether opting for free-range, barn, or cage systems, factors such as ventilation, lighting, temperature control, and biosecurity measures must be meticulously considered. Adequate space allowance, nesting areas, and perches contribute to the overall comfort and health of the birds.
3. **Nutrition and Feeding Practices**: nutrition plays a pivotal role in poultry development and productivity. Formulating balanced diets rich in essential nutrients like protein, carbohydrates, vitamins, and minerals is essential for optimal growth, egg production, and overall health. Additionally, understanding feeding practices, such as pellet feeding or free-choice feeding, aids in maximizing feed efficiency and minimizing wastage.
4. **Health Management and Disease Prevention**: maintaining poultry health is paramount in ensuring sustainable production. Implementing robust health management practices, including vaccination programs, parasite control, and regular health monitoring, helps prevent the outbreak of diseases. Early detection of illnesses and prompt veterinary intervention are crucial for minimizing economic losses and safeguarding flock health.
5. **Economic and Environmental Considerations**: poultry farming entails significant economic considerations, including initial investment costs, ongoing operational expenses, and market fluctuations. Moreover, addressing environmental concerns such as waste management, water usage, and sustainable production practices is imperative for mitigating the ecological footprint of poultry operations and promoting environmental stewardship.

Conclusion: In conclusion, poultry farming offers a dynamic and rewarding career path for agricultural enthusiasts. By mastering the intricacies of breeds, housing, nutrition, health management, and economic considerations, aspiring agriculturists can embark on successful poultry farming ventures that contribute to global food security and sustainable agriculture practices. Embrace the challenges and opportunities that poultry farming presents, and embark on a journey of learning, innovation, and growth in the fascinating world of avian agriculture.

**Task 1. True or false**

1. Poultry farming encompasses various domesticated birds such as chickens, turkeys, and ducks, providing meat, eggs, and feathers.
2. Understanding the traits and suitability of different poultry breeds is crucial for successful farming endeavors.
3. Proper housing and management systems, including ventilation and biosecurity measures, are essential for the welfare and productivity of poultry flocks.
4. Balanced diets rich in essential nutrients are necessary for optimal growth and egg production in poultry.
5. Implementing robust health management practices helps prevent the outbreak of diseases and ensures sustainable poultry production.
6. Economic considerations, such as initial investment costs and market fluctuations, are significant factors in poultry farming.
7. Addressing environmental concerns like waste management and sustainable production practices is crucial for promoting environmental stewardship in poultry farming.
8. Poultry farming offers a dynamic and rewarding career path for agricultural enthusiasts.

**Task 2. Fill in the gaps**

1. Aspiring agriculturists must ensure \_\_\_\_\_\_\_\_\_\_\_ for their poultry flocks. a) feathers b) welfare c) eggs d) lighting
2. \_\_\_\_\_\_\_\_\_\_\_ encompasses the care and management of birds. a) Global agriculture b) Avian husbandry c) Disease prevention d) Economic considerations
3. \_\_\_\_\_\_\_\_\_\_\_ play a crucial role in poultry development and health. a) Breeds b) Balanced diets c) Feeding practices d) Waste management
4. Proper \_\_\_\_\_\_\_\_\_\_\_ is essential for maintaining optimal temperature in poultry housing. a) perches b) ventilation c) nesting areas d) lighting
5. Poultry farming serves as a \_\_\_\_\_\_\_\_\_\_\_ of meat, eggs, and feathers. a) vital source b) captivating c) embark d) primer
6. Implementing effective \_\_\_\_\_\_\_\_\_\_\_ helps prevent the outbreak of diseases in poultry flocks. a) temperature control b) biosecurity measures c) feathers d) growth
7. \_\_\_\_\_\_\_\_\_\_\_ is paramount in ensuring the welfare and productivity of poultry. a) Health management b) Essential nutrients c) Growth d) Embark
8. \_\_\_\_\_\_\_\_\_\_\_ are the building blocks of protein essential for poultry growth. a) Carbohydrates b) Minerals c) Vitamins d) Proteins
9. \_\_\_\_\_\_\_\_\_\_\_ are crucial for mitigating the ecological footprint of poultry operations. a) Initial investment costs b) Ongoing operational expenses c) Environmental stewardship d) Market fluctuations
10. Understanding different poultry \_\_\_\_\_\_\_\_\_\_\_ is essential for selecting the right breed for specific purposes. a) feathers b) breeds c) eggs d) perches

**Task 3. Fill in the gaps**

1. Aspiring agriculturists must ensure \_\_\_\_\_\_\_\_\_\_ for their poultry flocks. a) feathers b) housing c) eggs d) growth
2. Avian husbandry encompasses the care and management of \_\_\_\_\_\_\_\_\_\_. a) minerals b) feathers c) poultry d) carbohydrates
3. Balanced diets are essential for providing \_\_\_\_\_\_\_\_\_\_ to poultry. a) meat b) vitamins c) eggs d) nutrition
4. Cage systems are one type of \_\_\_\_\_\_\_\_\_\_ used in poultry farming. a) barn b) free-range c) housing d) management systems
5. Disease prevention is crucial for maintaining the \_\_\_\_\_\_\_\_\_\_ of poultry flocks. a) productivity b) welfare c) feathers d) eggs
6. Environmental stewardship involves promoting responsible practices in \_\_\_\_\_\_\_\_\_\_. a) waste management b) egg production c) temperature control d) market fluctuations
7. Formulating balanced diets requires consideration of essential \_\_\_\_\_\_\_\_\_\_. a) feathers b) vitamins c) perches d) lighting
8. Poultry farming serves as a \_\_\_\_\_\_\_\_\_\_ of meat, eggs, and feathers. a) vital source b) primer c) growth d) embark
9. Sustainable production practices aim to minimize the ecological \_\_\_\_\_\_\_\_\_\_ of poultry farming. a) growth b) waste management c) lighting d) significance
10. Welcome to the captivating world of poultry farming, where \_\_\_\_\_\_\_\_\_\_ await. a) eggs b) breeds c) flocks d) aspirations

**Task 4. Fill in the gaps**

1. Adequate \_\_\_\_\_\_\_\_\_\_ is essential for ensuring the welfare of poultry flocks. a) Feathers b) Growth c) Housing d) Nutrition
2. Aspiring agriculturists are individuals who \_\_\_\_\_\_\_\_\_\_ pursue careers in agriculture. a) Captivating b) Embark c) Welcome d) Pragmatic
3. Avian husbandry focuses on the \_\_\_\_\_\_\_\_\_\_ of domesticated birds. a) Egg production b) Disease prevention c) Welfare d) Management
4. Balanced diets are crucial for providing poultry with \_\_\_\_\_\_\_\_\_\_. a) Feathers b) Carbohydrates c) Vitamins d) Market fluctuations
5. Barn is a type of \_\_\_\_\_\_\_\_\_\_ used in poultry housing. a) Waste management b) Environmental stewardship c) Housing d) Breeds
6. Biosecurity measures are implemented to prevent the spread of \_\_\_\_\_\_\_\_\_\_ among poultry flocks. a) Feeding practices b) Minerals c) Diseases d) Eggs
7. Breeds refer to different \_\_\_\_\_\_\_\_\_\_ of poultry with distinct characteristics. a) Eggs b) Flocks c) Essential nutrients d) Breeds
8. Cage systems are one of the housing \_\_\_\_\_\_\_\_\_\_ used in poultry farming. a) Growth b) Management systems c) Welfare d) Housing
9. Captivating refers to something that is \_\_\_\_\_\_\_\_\_\_ and intriguing. a) Balanced b) Captivating c) Sustainable d) Productive
10. Carbohydrates are a vital source of \_\_\_\_\_\_\_\_\_\_ for poultry. a) Meat b) Eggs c) Protein d) Energy

**Task 5. Fill in the gaps**

1. Aspiring agriculturists must ensure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for their poultry flocks. a) Adequate b) Avian husbandry c) Biosecurity measures d) Global agriculture
2. Poultry farming holds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in global food production. a) Balanced diets b) Captivating c) Immense significance d) Essential nutrients
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ play a crucial role in poultry development. a) Housing b) Flocks c) Growth d) Feathers
4. Proper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is essential for maintaining poultry health. a) Disease prevention b) Feeding practices c) Nesting areas d) Waste management
5. Understanding \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ aids in formulating appropriate diets for poultry. a) Lighting b) Nutrition c) Management systems d) Temperature control
6. Poultry farming requires effective \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to ensure flock welfare. a) Market fluctuations b) Environmental stewardship c) Water usage d) Health management
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are essential for the structural integrity of poultry housing. a) Perches b) Vitamins c) Minerals d) Eggs
8. Implementing proper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ helps prevent disease outbreaks. a) Feeding practices b) Biosecurity measures c) Growth d) Egg production
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are vital for the growth and development of poultry. a) Proteins b) Breeds c) Housing d) Waste management
10. Poultry farming involves managing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to ensure sustainable production. a) Initial investment costs b) Productivity c) Sustainable production d) Economic considerations

**Task 6. Fill in the gaps**

1. Aspiring agriculturists should ensure \_\_\_\_\_\_\_\_\_\_\_\_\_ for their poultry flocks. a) Growth b) Lighting c) Adequate welfare d) Ventilation
2. Avian husbandry focuses on the care and management of \_\_\_\_\_\_\_\_\_\_\_\_\_. a) Eggs b) Flocks c) Feathers d) Meat
3. Balanced diets are essential for providing \_\_\_\_\_\_\_\_\_\_\_\_\_ to poultry. a) Water usage b) Essential nutrients c) Waste management d) Nesting areas
4. Biosecurity measures are implemented to prevent \_\_\_\_\_\_\_\_\_\_\_\_\_ in poultry farms. a) Feeding practices b) Disease prevention c) Market fluctuations d) Housing issues
5. Breeds refer to the various \_\_\_\_\_\_\_\_\_\_\_\_\_ of poultry. a) Eggs b) Feathers c) Minerals d) Types
6. Cage systems are one of the \_\_\_\_\_\_\_\_\_\_\_\_\_ used in poultry farming. a) Management systems b) Housing c) Environmental stewardship d) Waste management techniques
7. Captivating aspects of poultry farming attract \_\_\_\_\_\_\_\_\_\_\_\_\_ to this field. a) Immense significance b) Balanced diets c) Aspiring agriculturists d) Initial investment costs
8. Disease prevention is crucial for maintaining \_\_\_\_\_\_\_\_\_\_\_\_\_ in poultry flocks. a) Productivity b) Water usage c) Market fluctuations d) Temperature control
9. Environmental stewardship involves responsible management of \_\_\_\_\_\_\_\_\_\_\_\_\_ in poultry farming. a) Eggs b) Waste c) Lighting d) Feeding practices
10. Essential nutrients are vital for the \_\_\_\_\_\_\_\_\_\_\_\_\_ of poultry. a) Growth b) Temperature control c) Market fluctuations d) Nesting areas

**Task 7. Fill in the gaps**

1. Adequate \_\_\_\_\_\_\_\_ is crucial for ensuring the welfare and productivity of poultry flocks. a) Productivity b) Temperature control c) Ventilation d) Protein
2. Poultry serves as a \_\_\_\_\_\_\_\_ of meat, eggs, and feathers in global agriculture. a) Sustainable production b) Vital source c) Waste management d) Water usage
3. Proper \_\_\_\_\_\_\_\_ is essential for maintaining optimal conditions within poultry housing. a) Vitamins b) Temperature control c) Welfare d) Welcome
4. \_\_\_\_\_\_\_\_ plays a pivotal role in poultry development and productivity. a) Protein b) Waste management c) Water usage d) Ventilation
5. Implementing effective \_\_\_\_\_\_\_\_ practices helps prevent the outbreak of diseases in poultry flocks. a) Temperature control b) Ventilation c) Health management d) Protein
6. \_\_\_\_\_\_\_\_ is imperative for mitigating the ecological footprint of poultry operations. a) Sustainable production b) Vital source c) Welfare d) Welcome
7. Balanced diets rich in essential \_\_\_\_\_\_\_\_ are crucial for optimal poultry growth. a) Temperature control b) Vitamins c) Waste management d) Water usage
8. \_\_\_\_\_\_\_\_ is pivotal in ensuring the welfare and productivity of poultry flocks. a) Ventilation b) Productivity c) Protein d) Adequate

**Task 8. Answer the questions**

1. What are the primary types of poultry discussed in the introduction?
2. Why is poultry considered a vital source in global agriculture?
3. What aspects of poultry farming will be explored in this primer?
4. Why is understanding the traits and behaviors of various poultry breeds crucial?
5. What factors must be considered when designing housing and management systems for poultry?
6. How does nutrition impact poultry development and productivity?
7. What are some examples of feeding practices mentioned in the text?
8. Why is maintaining poultry health important for sustainable production?
9. What are some measures mentioned for disease prevention in poultry farming?
10. Why is addressing environmental concerns essential in poultry farming?

**Task 9. Match the words with their definitions**

**Words:**

1. Breed
2. Biosecurity
3. Ventilation
4. Protein
5. Free-range
6. Parasite
7. Nutrients
8. Sustainability
9. Egg-layers
10. Broilers

**Definitions:** a) A type of bird raised specifically for its meat, usually chickens. b) Measures taken to prevent the introduction or spread of disease within a poultry flock. c) A substance essential for growth and repair of body tissues, commonly found in poultry feed. d) Birds known for their high egg production. e) A system of raising poultry where birds have access to outdoor areas. f) Circulation of fresh air within a poultry housing facility. g) A type of organism that lives on or in another organism (host) and benefits at the host's expense. h) Specific types or varieties of poultry with distinct characteristics. i) Essential substances found in food that provide nourishment to poultry. j) The ability to maintain or sustain an activity or process over the long term, without exhausting resources.

**UNIT 3**

**BEEF CATTLE FARMING**

**Beef Cattle** - ВРХ (Велика рогата худоба)

**Breed** - порода

**Distribution** - розподіл

**Environmental Impact** - вплив на навколишнє середовище

**Feed Efficiency** - ефективність годівлі

**Forage** - корм (сіножаті)

**Genetic Quality** - генетична якість

**Growth Rate** - темп росту

**Harvesting** - збір (забій)

**Marbling** - мраморність (жирові прожилки в м'ясі)

**Muscle Development** - розвиток м'язів

**Nutrients** - поживні речовини

**Parasite Control** - контроль за паразитами

**Pasture** - пасовище

**Processing Facilities** - переробні підприємства

**Quality Control** - контроль якості

**Reproductive Efficiency** - репродуктивна ефективність

**Rotational Grazing** - ротаційне випасання

**Selective Breeding** - селективне розведення

**Slaughtering** – забій

**Supplemental Feed** - додатковий корм

**Sustainability** - стійкість (екологічна стійкість)

**Vaccinations** - вакцинації

**Veterinary Care** - ветеринарний догляд

**Waste Management** - управління відходами

**Beef Cattle Farming: An Overview**. Beef cattle farming is a significant aspect of agriculture focused on raising cattle for meat production. This practice involves various management techniques to optimize meat quality and ensure the health and productivity of the cattle.

**Selecting Beef Cattle**. Choosing the right breeds is crucial for successful beef cattle farming. Farmers select breeds based on traits such as growth rate, muscle development, and feed efficiency. Popular beef breeds include Angus, Hereford, and Charolais. Each breed has specific characteristics that can impact meat quality and yield, so farmers choose breeds that align with their production goals.

**Feeding and Nutrition**. Feeding practices are vital in beef cattle farming. Cattle are typically fed a diet that includes forage (such as hay or grass) and supplemental feed to ensure they receive adequate nutrients for growth. The quality of the feed can significantly affect the flavor, tenderness, and marbling of the meat. Farmers often use a mix of pasture grazing and supplemental feeding to achieve optimal growth rates and meat quality.

**Health Management**. Maintaining the health of beef cattle is essential for a successful operation. Regular veterinary care, including vaccinations and parasite control, helps prevent diseases that can affect cattle health and meat quality. Proper housing and handling practices also contribute to the well-being of the cattle, reducing stress and promoting growth.

**Breeding and Genetics**. Breeding strategies play a crucial role in beef cattle farming. Farmers use selective breeding to enhance desirable traits such as growth rate, meat quality, and reproductive efficiency. By carefully choosing breeding pairs, farmers can improve the genetic quality of their herd, leading to better overall performance and profitability.

**Harvesting and Processing**. When cattle reach the desired weight and condition, they are sent to processing facilities where they are harvested and prepared for market. The processing involves slaughtering the cattle, cutting the meat into various products, and packaging it for distribution. Quality control during processing ensures that the meat meets safety and quality standards.

**Sustainability and Environmental Impact**. Modern beef cattle farming also focuses on sustainability practices to reduce environmental impact. Techniques such as rotational grazing, improved feed efficiency, and waste management help minimize the carbon footprint of beef production. Farmers are increasingly adopting practices that promote soil health and conserve natural resources while maintaining productivity.

In summary, beef cattle farming involves careful management of breed selection, feeding, health care, and breeding to produce high-quality meat. By focusing on these aspects, farmers can ensure a successful operation while also addressing sustainability and environmental concerns.

**Task 1. True or false**

* 1. Beef cattle are selected primarily for traits such as growth rate, muscle development, and feed efficiency.
  2. The term "marbling" refers to the fat distribution within the meat, which affects its tenderness and flavor.
  3. Beef cattle are typically fed a diet consisting only of pasture grass with no additional supplemental feed.
  4. Regular veterinary care, including vaccinations and parasite control, is essential for maintaining the health of beef cattle.
  5. Selective breeding is used to enhance desirable traits such as meat quality and reproductive efficiency in beef cattle.
  6. The harvesting process involves slaughtering the cattle and preparing the meat for market.
  7. Rotational grazing is a practice used to improve soil health and reduce the environmental impact of beef cattle farming.
  8. Beef cattle farming does not involve any sustainability practices or concern for environmental impact.
  9. The growth rate of beef cattle can be influenced by the quality of their diet and feeding practices.
  10. Processing facilities are responsible for slaughtering cattle and cutting the meat into various products for distribution.

**Task 2. Fill in the gaps**

1. Beef cattle are chosen based on traits such as \_\_\_\_\_\_\_\_, muscle development, and feed efficiency.

a) wool quality

b) growth rate

c) egg production

d) milk yield

2. Marbling refers to the \_\_\_\_\_\_\_\_ distribution within the meat, affecting its tenderness and flavor.

a) fat

b) bone

c) muscle

d) water

3. Beef cattle are usually fed a diet that includes both \_\_\_\_\_\_\_\_ and supplemental feed.

a) hay

b) grass

c) vegetables

d) fruits

4. Regular \_\_\_\_\_\_\_\_ care is important for preventing diseases and maintaining the health of beef cattle.

a) dental

b) nutritional

c) veterinary

d) grooming

5. Selective breeding in beef cattle is used to improve traits such as \_\_\_\_\_\_\_\_ and reproductive efficiency.

a) wool quality

b) meat quality

c) egg production

d) milk yield

6. The process of \_\_\_\_\_\_\_\_ involves slaughtering cattle and preparing the meat for market.

a) harvesting

b) grazing

c) breeding

d) milking

7. Rotational grazing is a practice used to enhance \_\_\_\_\_\_\_\_ health and reduce environmental impact.

a) water

b) soil

c) air

d) plant

8. Sustainability practices in beef cattle farming aim to reduce \_\_\_\_\_\_\_\_ impact.

a) social

b) environmental

c) economic

d) structural

9. The growth rate of beef cattle can be influenced by the \_\_\_\_\_\_\_\_ and feeding practices.

a) temperature

b) diet

c) light

d) shelter

10. Processing facilities are responsible for \_\_\_\_\_\_\_\_ cattle and preparing the meat for distribution.

a) feeding

b) breeding

c) slaughtering

d) grooming

**Task 3. Match the words with their definitions**

**Words:**

1. Marbling
2. Selective Breeding
3. Feed Efficiency
4. Rotational Grazing
5. Veterinary Care
6. Harvesting
7. Forage
8. Growth Rate
9. Processing Facilities
10. Supplemental Feed

**Definitions:**

a) The practice of choosing specific animals for breeding to enhance desirable traits in the herd.

b) The distribution of fat within the meat that affects its tenderness and flavor.

c) The process of collecting and preparing cattle meat for market.

d) The ability of cattle to convert feed into weight gain efficiently.

e) Facilities where cattle are slaughtered and meat is prepared for distribution.

f) Grazing method where livestock are moved between pastures to allow regrowth of forage.

g) The speed at which cattle grow, influenced by diet and genetics.

h) Extra feed provided to cattle to supplement their diet and improve growth or milk production.

i) The care and treatment provided by veterinarians to maintain cattle health.

j) Plants and grasses consumed by cattle as part of their diet.

**Task 4. Answer the questions**

1. **What is marbling in beef cattle, and how does it affect meat quality?**
2. **How does selective breeding contribute to improving the traits of beef cattle?**
3. **What is feed efficiency, and why is it important in beef cattle farming?**
4. **Describe the practice of rotational grazing and its benefits for soil and forage health.**
5. **Why is veterinary care essential for the health and productivity of beef cattle?**
6. **What does the harvesting process involve in beef cattle farming?**
7. **What types of forage are typically used in the diet of beef cattle?**
8. **How does the growth rate of beef cattle impact their overall productivity and profitability?**
9. **What role do processing facilities play in the beef cattle industry?**
10. **What is supplemental feed, and how does it benefit beef cattle?**

**TOPIC 4**

**SHEEP BREEDING**

**Adaptability** - адаптивність

**Breeding** - розведення

**Deworming** - глистування

**Ewe (female sheep)** - вівця, матка

**Fertility** - плідність

**Flock** - стадо

**Hay** - сіно

**Lamb** - ягня

**Lambing** - окот

**Livestock** - худоба

**Pasture** - пасовище

**Ram (male sheep)** - баран

**Shearing** - стрижка

**Sheep** - вівця

**Shepherd** - пастух

**Silage** - силос

**Vaccination** - вакцинація

**Veterinary care** - ветеринарний догляд

**Wool** – вовна

**Wool processing** - переробка вовни

Sheep breeding is a fascinating and ancient practice that plays a significant role in agriculture worldwide. It involves raising and caring for sheep to produce wool, meat, and milk, as well as for breeding purposes. Sheep are known for their adaptability to different environments, which makes them a valuable livestock choice in various regions, including Ukraine.

In Ukraine, sheep breeding has a rich history, particularly in the Carpathian region, where traditional methods have been passed down through generations. The Hutsuls, an ethnic group native to the Carpathians, have a long tradition of sheep herding, and their practices are closely tied to the cultural heritage of the area.

There are several important aspects to consider in sheep breeding:

1. **Selection of Breeds:** different sheep breeds are suited to different purposes. Some are bred for their high-quality wool, such as the Merino sheep, while others are known for meat production, like the Dorper. In Ukraine, the Romanov sheep is a popular breed known for its fertility and adaptability.
2. **Nutrition:** proper feeding is essential for healthy sheep. Their diet typically includes pasture grass, hay, and grains. In winter, when fresh grass is not available, sheep are often fed hay and silage. Ensuring they have a balanced diet helps in producing quality wool and meat.
3. **Healthcare:** regular veterinary care is crucial to prevent diseases and ensure the well-being of the flock. Sheep should be vaccinated, dewormed, and checked regularly for any signs of illness.
4. **Shearing:** wool-bearing sheep need to be sheared at least once a year. This process involves carefully cutting the wool off the sheep's body, which is then processed into yarn and fabric. Shearing is usually done in the spring when the weather starts to warm up.
5. **Breeding:** breeding is managed carefully to improve the flock's quality over time. Farmers select the best rams (male sheep) and ewes (female sheep) based on traits such as wool quality, meat production, and health. Lambing, the process of giving birth to lambs, is an exciting time on a sheep farm, and it requires careful monitoring to ensure the health of both the ewe and her lambs.

Sheep breeding not only provides valuable products like wool, meat, and milk but also plays a crucial role in maintaining the agricultural landscapes. For students interested in agriculture, sheep breeding offers a unique opportunity to learn about animal husbandry, sustainable farming practices, and the cultural significance of this traditional occupation.

**Task 1. True or false**

1. Sheep are typically sheared twice a year.
2. The Romanov sheep breed is known for its high-quality wool.
3. Ewes are the term used for male sheep.
4. Lambing usually occurs in the fall.
5. Proper nutrition for sheep includes pasture grass, hay, and grains.
6. Silage is commonly used as feed for sheep during the summer months.
7. A flock refers to a group of sheep.
8. Rams are female sheep used for breeding.
9. Deworming is a regular part of veterinary care for sheep.
10. The Hutsuls have a long tradition of sheep herding in Ukraine.

**Task 2. Fill in the gaps**

1. The process of cutting wool from sheep is called \_\_\_\_\_\_.

a) Breeding

b) Shearing

c) Feeding

1. A group of sheep is known as a \_\_\_\_\_\_.

a) Herd

b) Flock

c) Pack

1. \_\_\_\_\_\_ is the term used for a young sheep.

a) Ewe

b) Ram

c) Lamb

1. The diet of sheep primarily consists of \_\_\_\_\_\_.

a) Hay and grass

b) Meat

c) Fish

1. The practice of raising sheep for wool, meat, and milk is called \_\_\_\_\_\_.

a) Farming

b) Sheep breeding

c) Herding

1. \_\_\_\_\_\_ is a common practice to protect sheep from parasites.

a) Shearing

b) Deworming

c) Breeding

1. The term for a female sheep is \_\_\_\_\_\_.

a) Ram

b) Ewe

c) Lamb

1. Sheep are often raised in \_\_\_\_\_\_ regions due to their adaptability.

a) Urban

b) Mountainous

c) Desert

1. Wool from sheep is primarily used to make \_\_\_\_\_\_.

a) Leather

b) Fabric

c) Plastic

1. \_\_\_\_\_\_ is an important season for lambing on sheep farms.

a) Spring

b) Summer

c) Winter

**Task 3. Match the words with their definitions**

**Words:**

1. Ewe
2. Shearing
3. Flock
4. Ram
5. Lambing
6. Wool
7. Deworming
8. Silage
9. Pasture
10. Breeding

**Definitions:** A. The process of removing wool from a sheep. B. A group of sheep kept together. C. The term used for a female sheep. D. The process of giving birth to lambs. E. Food made from fermented grass or other plants, often used to feed sheep in winter. F. The act of selecting and mating sheep to produce desired traits. G. The soft, curly hair from sheep used to make fabric. H. The term used for a male sheep. I. An area of land where sheep graze. J. The practice of removing parasites from sheep.

**Task 4. Answer the questions**

* 1. What is the primary purpose of sheep breeding?
  2. Which breed of sheep is known for its high fertility and adaptability?
  3. Why is proper nutrition important for sheep?
  4. What is the difference between a ram and an ewe?
  5. How often are sheep typically sheared?
  6. What are the main products obtained from sheep?
  7. What role do the Hutsuls play in the tradition of sheep breeding in Ukraine?
  8. Why is veterinary care essential for sheep?
  9. What is lambing, and why is it an important process in sheep breeding?
  10. How does the environment impact the selection of sheep breeds?

**UNIT 5**

**RABBIT FARMING**

1. Animal welfare - добробут тварин
2. Biodiversity - біорізноманіття
3. Breeding – розведення
4. Breeds - пород
5. Challenges - виклики
6. Commitment - зобов'язання
7. Continuous learning - постійненавчання
8. Dedication - відданість
9. Disease management - керування захворюваннями
10. Environmental - екологічний
11. Ethics - етика
12. Experienced - досвідчені
13. Feeding - годування
14. Gestation period - термін вагітності
15. Greens - зелень
16. Hay - сіно
17. Healthcare - медичний догляд
18. Housing - споруди для утримання
19. Hutches - клітки
20. Marketing - маркетинг
21. Mating – спарювання
22. Meat breeds - породи для м'яса
23. Nest box - гніздо
24. Nutrition - живлення
25. Opportunities - можливості
26. Patience - терпіння
27. Pellets - пелети
28. Quality – якість
29. Rabbit farming - кролівництво
30. Reproduction - розмноження
31. Sales - продаж
32. Sustainability - стійкість
33. Sustainable food production - стійке виробництво їжі
34. Ventilation - вентиляція
35. Welfare standards - стандарти добробуту
36. Wool - вовна

Welcome to the fascinating world of rabbit farming! Rabbits are adorable, furry creatures that have been domesticated for centuries, not just as pets, but also for their valuable meat, fur, and even as laboratory animals. As specialists, delving into rabbit farming can provide you with valuable insights into animal husbandry, sustainable agriculture, and even entrepreneurial opportunities. In this beginner's guide, we'll explore the basics of rabbit farming to help you kickstart your journey in this rewarding field.

1. **Understanding Rabbit Breeds:** rabbits come in various breeds, each with its own unique characteristics and suitability for different purposes. Some common meat breeds include New Zealand White, Californian, and Flemish Giant, while Angora rabbits are prized for their luxurious wool. It's essential to research and select breeds based on your farming goals and local conditions.
2. **Housing and Infrastructure:** proper housing is crucial for the health and well-being of your rabbits. Construct or procure spacious hutches or cages with adequate ventilation, protection from predators, and easy access for cleaning. Ensure proper insulation to shield rabbits from extreme temperatures.
3. **Nutrition and Feeding:** a balanced diet is essential for the growth and development of rabbits. Their diet primarily consists of high-quality hay, fresh greens, and commercial rabbit pellets. Ensure access to clean water at all times. Additionally, supplement their diet with occasional treats like fruits and vegetables, but be mindful of portion sizes to prevent obesity.
4. **Healthcare and Disease Management:** regular monitoring of rabbit health is vital to prevent and manage diseases. Schedule routine check-ups with a veterinarian experienced in rabbit care. Vaccinations, parasite control, and proper sanitation practices are crucial for maintaining a healthy herd.
5. **Breeding and Reproduction:** understanding the reproductive cycle of rabbits is essential for successful breeding. Female rabbits (does) can start breeding as early as four to six months old, with a gestation period of around 28-31 days. Proper mating practices, nest box preparation, and care for newborn kits are critical for ensuring a thriving rabbitry.
6. **Marketing and Sales:** whether you're raising rabbits for meat, fur, or pets, marketing plays a significant role in the success of your farm. Establishing relationships with local markets, pet stores, or even direct-to-consumer sales channels can help you reach potential customers. Highlighting the quality and welfare standards of your rabbits can attract discerning buyers.
7. **Sustainability and Ethics:** as agronomy specialists, it's essential to prioritize sustainability and ethical practices in rabbit farming. Implementing eco-friendly initiatives such as efficient waste management, renewable energy utilization, and biodiversity conservation not only benefits the environment but also enhances the reputation of your farm.

Remember, rabbit farming requires dedication, patience, and continuous learning. Embrace challenges as opportunities for growth, and don't hesitate to seek advice from experienced rabbit farmers or agricultural experts. With proper knowledge and commitment, you can embark on a rewarding journey in rabbit farming, contributing to sustainable food production and animal welfare.

**Task 1. True or false**

1. Angora rabbits are primarily raised for their meat.
2. Proper ventilation is not necessary in rabbit housing.
3. Feeding rabbits excessive amounts of fruits and vegetables is recommended for their health.
4. Regular veterinary check-ups are unnecessary for maintaining rabbit health.
5. Female rabbits (does) can start breeding as early as eight weeks old.
6. Gestation period for rabbits is typically between 28 to 31 days.
7. Marketing strategies are not essential for a successful rabbit farming business.
8. Sustainability and ethics are irrelevant considerations in rabbit farming.
9. Flemish Giant is a breed known for its luxurious fur.
10. Rabbit farming does not require dedication or continuous learning.

**Task 2. Fill in the gaps**

1. Welcome to the fascinating world of rabbit farming! Rabbits are adorable, furry creatures that have been domesticated for \_\_\_\_\_\_\_\_\_\_.

A) decades

B) centuries

C) millennia

1. Rabbits come in various breeds, each with its own unique characteristics and suitability for different \_\_\_\_\_\_\_\_\_\_.

A) climates

B) purposes

C) sizes

1. Proper housing is crucial for the health and well-being of your rabbits. Construct or procure spacious hutches or cages with adequate ventilation, protection from predators, and easy access for \_\_\_\_\_\_\_\_\_\_.

A) feeding

B) cleaning

C) grooming

1. A balanced diet is essential for the growth and development of rabbits. Their diet primarily consists of high-quality hay, fresh greens, and \_\_\_\_\_\_\_\_\_\_.

A) seeds

B) grains

C) commercial rabbit pellets

1. Regular monitoring of rabbit health is vital to prevent and manage diseases. Schedule routine check-ups with a veterinarian experienced in \_\_\_\_\_\_\_\_\_\_.

A) livestock

B) rabbit care

C) pet care

1. Female rabbits (does) can start breeding as early as \_\_\_\_\_\_\_\_\_\_ months old, with a gestation period of around 28-31 days.

A) two to four

B) four to six

C) six to eight

1. Implementing eco-friendly initiatives such as efficient waste management, renewable energy utilization, and biodiversity conservation not only benefits the environment but also enhances the reputation of your \_\_\_\_\_\_\_\_\_\_.

A) farm

B) community

C) market

1. Whether you're raising rabbits for meat, fur, or pets, marketing plays a significant role in the success of your farm. Establishing relationships with local \_\_\_\_\_\_\_\_\_\_ can help you reach potential customers.

A) pet stores

B) supermarkets

C) schools

1. Understanding the reproductive cycle of rabbits is essential for successful breeding. Proper mating practices, nest box preparation, and care for newborn kits are critical for ensuring a \_\_\_\_\_\_\_\_\_\_ rabbitry.

A) healthy

B) profitable

C) spacious

1. Embrace challenges as opportunities for growth, and don't hesitate to seek advice from experienced rabbit farmers or \_\_\_\_\_\_\_\_\_\_.

A) veterinarians

B) agricultural experts

C) environmentalists

1. Rabbits are domesticated for their valuable \_\_\_\_\_\_\_\_\_\_, fur, and even as laboratory animals.

A) meat

B) companionship

C) eggs

1. Ensure proper insulation to shield rabbits from \_\_\_\_\_\_\_\_\_\_ temperatures.

A) extreme

B) moderate

C) fluctuating

1. Rabbits primarily feed on high-quality \_\_\_\_\_\_\_\_\_\_, fresh greens, and commercial rabbit pellets.

A) hay

B) straw

C) sawdust

1. Proper housing is crucial for the health and well-being of your rabbits. Construct or procure spacious \_\_\_\_\_\_\_\_\_\_ with adequate ventilation.

A) cages

B) ponds

C) coops

1. Female rabbits (does) can start breeding as early as four to six months old, with a gestation period of around \_\_\_\_\_\_\_\_\_\_ days.

A) 21-25

B) 28-31

C) 35-40

1. Rabbits come in various breeds, each with its own unique characteristics and suitability for different purposes. Some common meat breeds include \_\_\_\_\_\_\_\_\_\_.

A) Angora

B) Flemish Giant

C) Netherland Dwarf

1. Regular monitoring of rabbit health is vital to prevent and manage diseases. Schedule routine check-ups with a \_\_\_\_\_\_\_\_\_\_ experienced in rabbit care.

A) pet owner

B) veterinarian

C) nutritionist

1. Whether you're raising rabbits for meat, fur, or pets, marketing plays a significant role in the success of your farm. Establishing relationships with local markets, pet stores, or \_\_\_\_\_\_\_\_\_\_ can help you reach potential customers.

A) wholesalers

B) direct-to-consumer sales channels

C) manufacturers

1. Implementing eco-friendly initiatives such as efficient waste management, renewable energy utilization, and \_\_\_\_\_\_\_\_\_\_ not only benefits the environment but also enhances the reputation of your farm.

A) water conservation

B) pesticide use

C) biodiversity conservation

1. Embrace challenges as opportunities for growth, and don't hesitate to seek advice from experienced rabbit farmers or agricultural \_\_\_\_\_\_\_\_\_\_.

A) students

B) enthusiasts

C) experts

**Task 3. Answer the questions**

1. What animals is the text about?
2. What are some reasons people raise rabbits?
3. Can you name some common breeds of rabbits mentioned in the text?
4. Why is proper housing important for rabbits?
5. What do rabbits eat?
6. Why is it necessary to monitor rabbit health regularly?
7. How long is the gestation period for rabbits?
8. What should farmers do to prepare for rabbit breeding?
9. How can farmers sell their rabbits?
10. Why is sustainability important in rabbit farming?

**TOPIC 6**

**PIG FARMING**

**Anemia** - анемія

**Black Breeds** - чорні породи

**Breed** - порода

**Confinement** - утримання (обмежене простір)

**Crosses** - гібриди

**Farrowing** - породілля (акт родів у свиней)

**Fiber** - волокна

**Grinding** - подрібнення

**Hydration** - гідратація

**Macroelements** - макроелементи

**Microelements** - мікроелементи

**Nutritional Deficiencies** - харчові дефіцити

**Omnivorous** - всеїдний

**Open Air** - відкрите повітря

**Piglets** – поросята

**Rations** - раціони

**Simple Stomach** - простий шлунок

**Sow** - свиноматка (вагітна свиня)

**Tamworth** - тамворт (порода свиней з золотисто-червоним кольором)

**White Breeds** - білі породи

**Understanding Pig Farming**. Pigs are versatile and adaptable animals, known for their omnivorous diet and simple stomach structure. They are raised in various breeds, including distinct types such as Black breeds, White breeds, and the Tamworths, which are known for their golden-red coloration. When different pure breeds are crossed, the resulting pigs often exhibit a mix of the parent breeds' colors.

Pigs thrive best in open-air environments during warm weather. In these conditions, they efficiently convert their food into meat, making them well-suited for outdoor farming systems.

**Reproduction and Farrowing**. A pregnant pig is referred to as a sow. Sows typically give birth to litters of 6 to 12 piglets, a process known as farrowing. It is crucial for a sow to be in good condition, but not overweight, before farrowing. Close confinement before this process can be detrimental to the sow's health.

Piglets that are nursing may require additional water to stay hydrated. Their diet should be carefully balanced with both micro and macroelements to prevent conditions such as anemia, which can arise from nutritional deficiencies.

**Feeding Considerations**. One important aspect of pig feeding is understanding their dental anatomy. Pigs have teeth that are not well-suited for finely grinding feed, meaning they do not break down fiber very effectively. This characteristic affects their ability to process certain types of feed, and their diet should be adjusted accordingly to ensure optimal health and growth.

Overall, successful pig farming involves managing breed selection, environmental conditions, and nutritional needs to ensure the health and productivity of the pigs.

**Task 1. True or false**

* 1. Pigs are omnivorous animals and have a complex stomach structure.
  2. The Tamworth breed of pigs is known for its golden-red coloration.
  3. Pigs generally thrive better in confined indoor spaces rather than open-air environments.
  4. A pregnant pig is called a sow, and it usually produces litters of 6 to 12 piglets.
  5. Farrowing is the term used for the act of a pig giving birth.
  6. It is beneficial for a sow to be fat and confined closely before farrowing.
  7. Piglets that are nursing may require additional water to stay hydrated.
  8. The teeth of pigs are well-suited for finely grinding fibrous feeds.
  9. Micro and macroelements are important in the diet of piglets to prevent anemia.
  10. Crosses between different pure breeds of pigs often display mixed colors from their parent breeds.

**Task 2. Fill in the gaps**

1.Pigs are \_\_\_\_\_\_\_\_ animals with a simple stomach structure.

a) herbivorous

b) carnivorous

c) omnivorous

d) herbivorous

2. The Tamworth breed of pigs is known for its \_\_\_\_\_\_\_\_ coloration.

a) black

b) white

c) golden-red

d) brown

3. Pigs are generally more suited to \_\_\_\_\_\_\_\_ environments during warm weather.

a) indoor

b) confined

c) open-air

d) cold

4. A pregnant pig is called a \_\_\_\_\_\_\_\_ and usually produces 6 to 12 piglets.

a) boar

b) sow

c) gilt

d) barrow

5. The term for the act of a pig giving birth is \_\_\_\_\_\_\_\_.

a) mating

b) weaning

c) farrowing

d) estrus

6. Prior to farrowing, a sow should be in good condition but not \_\_\_\_\_\_\_\_.

a) thin

b) fat

c) sick

d) young

7. Nursing piglets may require additional \_\_\_\_\_\_\_\_ to ensure proper hydration.

a) food

b) bedding

c) water

d) space

8. Pigs have teeth that are not well-suited for \_\_\_\_\_\_\_\_ fibrous feeds.

a) grinding

b) chewing

c) tearing

d) swallowing

9. To prevent anemia in piglets, their diet should be supplemented with \_\_\_\_\_\_\_\_.

a) vitamins

b) water

c) micro and macroelements

d) sugars

10. Crosses between different pure breeds of pigs often show \_\_\_\_\_\_\_\_ colors.

a) uniform

b) mixed

c) single

d) patterned

**Task 3. Match the words with their definitions**

**Words:**

1. Omnivorous
2. Simple Stomach
3. Breed
4. Tamworth
5. Farrowing
6. Sow
7. Piglets
8. Confinement
9. Hydration
10. Microelements

**Definitions:**

a) A pig that is pregnant and gives birth to piglets.

b) The act of a pig giving birth.

c) A type of pig breed known for its golden-red coloration.

d) A diet that includes both plant and animal matter.

e) The young offspring of a pig.

f) The process of keeping pigs in a restricted area or space.

g) Essential nutrients required in small amounts to prevent deficiencies.

h) The condition of having only one chamber for digestion, unlike complex stomachs.

i) The state of having sufficient water intake for maintaining bodily functions.

j) A group of pigs with similar characteristics or lineage.

**Task 4. Answer the questions**

* 1. **What does it mean for a pig to be omnivorous, and how does this dietary trait benefit its farming?**
  2. **Describe the characteristics of the Tamworth breed of pigs.**
  3. **What is the significance of farrowing in pig farming, and how is it managed?**
  4. **What role does a sow play in pig reproduction, and what should be considered in her care before farrowing?**
  5. **Why is hydration important for nursing piglets, and how can farmers ensure they receive enough water?**
  6. **How does the simple stomach structure of pigs affect their ability to process different types of feed?**
  7. **What are some common breeds of pigs, and what are their distinct characteristics?**
  8. **How does confinement before farrowing impact the health and productivity of a sow?**
  9. **What are microelements, and why are they essential in the diet of piglets?**
  10. **How do pigs convert their food into meat, and what are the optimal conditions for this conversion?**

**TOPIC 7**

**AQUACULTURE**

**Aquaculture** - аквакультура

**Biosecurity** - біобезпека

**Commercial Purposes** - комерційні цілі

**Crustaceans** - ракоподібні

**Disease Management** - управління захворюваннями

**Environmental Impact** - вплив на навколишнє середовище

**Estuaries** - естуарії

**Farmed Species** - Сільськогосподарські види

**Feed** - корм

**Fish Farming** - рибне господарство

**Harvesting** - збір врожаю

**Mollusks** - молюски

**Net Pens** - сітчасті вольєри

**Nutritional Balance** - харчовий баланс

**Recirculating Aquaculture Systems (RAS)** - системи рециркуляції води в аквакультурі

**Seaweed** - водорості

**Selective Breeding** - селективне розведення

**Shellfish** - молюски

**Sustainability** - стійкість

**Water Quality** - якість води

**Aquaculture: An Overview**. Aquaculture, also known as fish farming, is the practice of cultivating aquatic organisms in controlled environments for commercial purposes. This industry encompasses the farming of a variety of species, including fish, shellfish, crustaceans, and aquatic plants. Aquaculture plays a crucial role in meeting the global demand for seafood, supporting livelihoods, and contributing to the sustainability of marine resources.

**Types of Aquaculture**

1. **Fish Farming**: This involves the cultivation of fish species such as salmon, tilapia, and catfish in freshwater or marine environments. Fish farming can occur in ponds, tanks, or net pens and aims to produce high-quality fish for consumption.
2. **Shellfish Farming**: Shellfish farming includes the cultivation of mollusks such as oysters, clams, and mussels. These species are often grown in coastal areas or estuaries, where they filter feed from the water.
3. **Crustacean Farming**: Crustaceans like shrimp and lobsters are farmed in controlled environments such as ponds or tanks. This type of aquaculture requires careful management of water quality and nutrition to ensure optimal growth and health.
4. **Seaweed Farming**: Seaweed cultivation involves growing various species of marine algae, which are used for food, pharmaceuticals, and industrial applications. Seaweed farming is typically carried out in coastal areas where seaweed can be grown on ropes or in submerged nets.

**Benefits of Aquaculture**

* **Food Security**: Aquaculture provides a reliable source of seafood, contributing to food security and offering a sustainable alternative to wild fishery resources.
* **Economic Growth**: The aquaculture industry supports millions of jobs worldwide, from farming and processing to distribution and retail.
* **Sustainability**: By farming aquatic species, aquaculture helps reduce the pressure on wild fish stocks and can be managed to minimize environmental impact.

**Challenges in Aquaculture**

* **Disease Management**: High-density farming conditions can lead to the spread of diseases among aquatic species. Effective health management and biosecurity measures are crucial for preventing outbreaks.
* **Environmental Impact**: Aquaculture can impact the surrounding environment through issues like water pollution, habitat destruction, and the escape of farmed species into the wild. Sustainable practices and responsible management are essential to mitigate these effects.
* **Feed and Nutrition**: Providing balanced and sustainable feed for farmed species is a significant challenge. Researchers and industry professionals are working on alternative feed sources to reduce dependency on wild fish.

**Future of Aquaculture**. The future of aquaculture lies in advancing technologies and practices that enhance sustainability and efficiency. Innovations such as recirculating aquaculture systems (RAS), which recycle water and minimize waste, and selective breeding programs for improved species, are paving the way for a more sustainable and productive industry.

In summary, aquaculture is a vital component of modern food systems, offering numerous benefits while facing challenges that require ongoing attention and innovation. By addressing these challenges and embracing sustainable practices, aquaculture can continue to play a significant role in providing seafood for the growing global population.

**Task 1. True or false**

1. Aquaculture refers to the cultivation of aquatic organisms in controlled environments for commercial purposes.
2. Fish farming is only concerned with the cultivation of shellfish and crustaceans.
3. Shellfish farming includes species like oysters, clams, and mussels, which are often grown in coastal areas.
4. Crustaceans such as shrimp and lobsters are typically farmed in open ocean environments.
5. Seaweed farming involves growing marine algae, which are used for food and industrial applications.
6. One benefit of aquaculture is that it helps reduce the pressure on wild fish stocks.
7. High-density farming conditions in aquaculture can lead to the spread of diseases among aquatic species.
8. Sustainable practices in aquaculture are important to minimize the environmental impact of fish farming.
9. Recirculating aquaculture systems (RAS) are used to recycle water and reduce waste in aquaculture.
10. The primary challenge in aquaculture is providing farmed species with balanced and sustainable feed.

**Task 2. Fill in the gaps**

1. Aquaculture is the practice of cultivating aquatic organisms in \_\_\_\_\_\_\_\_ environments for commercial purposes.

a) wild

b) uncontrolled

c) controlled

d) hazardous

2. \_\_\_\_\_\_\_\_ farming involves the cultivation of species such as oysters, clams, and mussels.

a) Fish

b) Crustacean

c) Shellfish

d) Seaweed

3. Crustaceans, like \_\_\_\_\_\_\_\_ and lobsters, are often farmed in controlled environments such as ponds or tanks.

a) clams

b) seaweed

c) shrimp

d) algae

4. Seaweed farming typically occurs in \_\_\_\_\_\_\_\_ areas where seaweed can be grown on ropes or nets.

a) freshwater

b) desert

c) coastal

d) mountainous

5. One of the benefits of aquaculture is that it helps \_\_\_\_\_\_\_\_ the pressure on wild fish stocks.

a) increase

b) eliminate

c) reduce

d) ignore

6. Managing \_\_\_\_\_\_\_\_ in aquaculture is crucial to prevent the spread of diseases among farmed species.

a) feed

b) water quality

c) biosecurity

d) market prices

7. Sustainable aquaculture practices aim to minimize the \_\_\_\_\_\_\_\_ impact of farming activities on the environment.

a) economic

b) social

c) environmental

d) personal

8. Recirculating Aquaculture Systems (RAS) are designed to \_\_\_\_\_\_\_\_ water and minimize waste in aquaculture.

a) pollute

b) recycle

c) replace

d) discard

9. Providing \_\_\_\_\_\_\_\_ feed is a significant challenge in aquaculture to ensure the health and growth of farmed species.

a) untreated

b) balanced

c) organic

d) low-quality

10. Selective \_\_\_\_\_\_\_\_ is used in aquaculture to improve the traits of farmed species, such as growth rate and disease resistance.

a) harvesting

b) breeding

c) feeding

d) processing

**Task 3. Match the words with their definitions**

**Words:**

1. Aquaculture
2. Shellfish
3. Crustaceans
4. Seaweed
5. Recirculating Aquaculture Systems (RAS)
6. Biosecurity
7. Sustainable Practices
8. Harvesting
9. Feed
10. Selective Breeding

**Definitions:**

a) The practice of cultivating aquatic organisms in controlled environments for commercial purposes.

b) Marine algae used for food, pharmaceuticals, and industrial applications.

c) The process of collecting and preparing farmed aquatic organisms for market.

d) Measures taken to prevent the spread of diseases among farmed species.

e) A type of aquatic farming system that recycles water to reduce waste.

f) Aquatic organisms such as oysters, clams, and mussels.

g) Practices aimed at minimizing environmental impact and ensuring resource sustainability.

h) The cultivation of species like shrimp and lobsters.

i) Nutrients provided to farmed aquatic species to promote growth and health.

j) The process of choosing specific individuals for breeding to enhance desirable traits.

**Task 4. Answer the questions**

1. **What is aquaculture, and why is it important for global food supply?**
2. **Which types of aquatic organisms are commonly cultivated in shellfish farming?**
3. **What are crustaceans, and how are they typically farmed in aquaculture?**
4. **How does seaweed farming contribute to food, pharmaceuticals, and industrial applications?**
5. **What is the purpose of Recirculating Aquaculture Systems (RAS), and how do they benefit fish farming?**
6. **How does biosecurity play a role in managing health risks in aquaculture?**
7. **What are sustainable practices in aquaculture, and why are they crucial for environmental conservation?**
8. **Describe the harvesting process in aquaculture and its significance for the industry.**
9. **Why is providing balanced feed important for the health and growth of farmed aquatic species?**
10. **How does selective breeding improve the traits of farmed aquatic species, and what traits are often targeted?**

**TOPIC 8**

**HORSE BREEDING AND MANAGEMENT**

**Artificial Insemination (AI)** - штучне осіменіння

**Balanced Diet** - збалансоване харчування

**Breeding** - розведення

**Conformation** - конформація (фізична структура коня)

**Exercise** - фізичні вправи

**Foal** - лоша

**Foaling** - процес народження лошати

**Genetics** - генетика

**Health Management** - управління здоров'ям

**Housing** - житло

**Live Cover** - природне осіменіння (з використанням жеребця)

**Mare** - кобила

**Nutrition** - харчування

**Pedigree** – родовід

**Record Keeping** - ведення обліку

**Reproductive Health** - репродуктивне здоров'я

**Stallion** - Жеребець

**Training** - тренування

**Turnout Area** - випасна зона

**Veterinary Care** - ветеринарний догляд

**Horse Breeding and Management**. Horse breeding and management are essential components of the equine industry, focusing on improving horse breeds, ensuring their well-being, and optimizing their performance for various purposes such as riding, racing, and work. This process involves careful selection, health management, and proper care to produce high-quality horses and maintain their health throughout their lives.

**Breeding**. Breeding horses involves selecting suitable mating pairs to enhance desirable traits and maintain or improve breed standards. Key considerations in horse breeding include:

1. **Genetics**: Understanding the genetic background of both stallions and mares is crucial. Breeders aim to combine traits such as speed, stamina, temperament, and conformation to produce offspring with the best possible qualities. Genetic testing and pedigree analysis help in making informed decisions.
2. **Conformation**: The physical structure of the horse, including its bone structure, muscling, and overall appearance, is essential for assessing its breeding potential. Proper conformation ensures the horse's soundness and performance capabilities.
3. **Health and Fitness**: Both the stallion and mare should be in excellent health and fitness before breeding. This includes vaccinations, deworming, and overall conditioning to ensure a successful mating and healthy pregnancy.
4. **Breeding Methods**: Traditional live cover, where the stallion and mare mate naturally, is commonly used. However, artificial insemination (AI) has become popular due to its convenience and the ability to use semen from distant or superior stallions.

**Management**. Effective management of breeding horses involves various aspects to ensure their health, well-being, and productivity:

1. **Nutrition**: Providing a balanced diet tailored to the specific needs of breeding horses is essential. Nutrients support reproductive health, pregnancy, and lactation. High-quality forage, grains, and supplements ensure optimal health and performance.
2. **Veterinary Care**: Regular veterinary check-ups are crucial for maintaining the health of breeding horses. This includes routine examinations, vaccinations, and dental care, as well as monitoring for reproductive health issues.
3. **Housing and Facilities**: Proper housing and facilities contribute to the well-being of horses. Stabling should be clean, dry, and well-ventilated, with adequate space for exercise. Access to safe turnout areas and appropriate shelter is also important.
4. **Foaling and Care of Foals**: The foaling process requires careful monitoring to ensure the mare and foal's health. After birth, foals need proper nutrition, socialization, and veterinary care to ensure their growth and development. Regular handling and early training can help foals become well-adjusted and responsive to training.
5. **Training and Exercise**: For horses intended for performance or work, training and exercise are vital. A structured training program tailored to the horse’s discipline and goals enhances its skills and prepares it for future activities.
6. **Record Keeping**: Keeping detailed records of breeding, health, and performance is important for managing a successful breeding program. This information helps in making informed decisions about future breedings and managing individual horses.

**Conclusion**. Horse breeding and management are intricate processes requiring a comprehensive understanding of genetics, health, nutrition, and training. By focusing on these aspects, breeders and managers can produce high-quality horses and ensure their well-being, ultimately contributing to the success and sustainability of the equine industry.

**Task 1. True or false**

1. Genetics play a crucial role in horse breeding to ensure desirable traits are passed to offspring.
2. Artificial insemination is the traditional method of horse breeding where the stallion and mare mate naturally.
3. The conformation of a horse refers to its physical structure, including bone structure and muscling.
4. A mare is a male horse used for breeding purposes.
5. Proper nutrition for breeding horses includes providing a balanced diet with high-quality forage and grains.
6. Foaling is the process of training a horse for performance activities.
7. Regular veterinary care is essential for maintaining the health of breeding horses, including vaccinations and dental care.
8. A stallion is a female horse used for breeding purposes.
9. Foals require careful monitoring and early handling to ensure proper growth and development.
10. Artificial insemination (AI) allows for the use of semen from distant or superior stallions, providing more breeding opportunities.

**Task 2. Fill in the gaps**

1. Genetics are important in horse breeding to ensure desirable traits are \_\_\_\_\_\_\_\_ to the offspring.

a) ignored

b) passed

c) hidden

d) removed

2. Conformation refers to the \_\_\_\_\_\_\_\_ structure of a horse, including its bone structure and muscling.

a) dietary

b) physical

c) emotional

d) financial

3. A mare is a \_\_\_\_\_\_\_\_ horse used for breeding purposes.

a) female

b) male

c) young

d) retired

4. Artificial Insemination (AI) allows for the use of semen from \_\_\_\_\_\_\_\_ stallions.

a) distant

b) local

c) retired

d) wild

5. Foaling is the process of a mare \_\_\_\_\_\_\_\_ a foal.

a) training

b) feeding

c) giving birth to

d) selling

6. Providing a balanced diet for breeding horses includes high-quality forage and \_\_\_\_\_\_\_\_.

a) water

b) supplements

c) grains

d) treats

7. Regular veterinary care for breeding horses includes vaccinations, deworming, and \_\_\_\_\_\_\_\_ care.

a) financial

b) dental

c) social

d) grooming

8. A stallion is a \_\_\_\_\_\_\_\_ horse used for breeding purposes.

a) female

b) young

c) male

d) elderly

9. Foals need \_\_\_\_\_\_\_\_ monitoring and early handling for proper growth and development.

a) minimal

b) occasional

c) careful

d) no

10. Record Keeping in horse breeding involves maintaining detailed records of breeding, \_\_\_\_\_\_\_\_, and performance.

a) nutrition

b) training

c) health

d) exercise

**Task 3. Match the words with their definitions**

**Words:**

1. Breeding
2. Conformation
3. Genetics
4. Mare
5. Artificial Insemination (AI)
6. Foaling
7. Balanced Diet
8. Veterinary Care
9. Stallion
10. Record Keeping

**Definitions:**

a) The practice of cultivating specific traits in horses through controlled mating.

b) The physical structure of a horse, including its bone and muscle development.

c) The scientific study of heredity and variation in horses.

d) A female horse used for breeding purposes.

e) A method of breeding where semen is introduced into the mare's reproductive system without natural mating.

f) The process of a mare giving birth to a foal.

g) Providing horses with a diet that includes appropriate amounts of nutrients to support their health and performance.

h) Medical care provided to horses, including vaccinations, check-ups, and dental work.

i) A male horse used for breeding purposes.

j) The practice of maintaining detailed records of breeding, health, and performance of horses.

**Task 4. Answer the questions**

1. **What is the main goal of horse breeding, and how does it contribute to improving horse breeds?**
2. **How does conformation affect a horse's performance and overall health?**
3. **Why is understanding genetics important in horse breeding?**
4. **What role does a mare play in horse breeding, and what are some of her care requirements?**
5. **What is Artificial Insemination (AI), and how does it differ from natural mating in horses?**
6. **What does the process of foaling involve, and how should a mare be prepared for it?**
7. **Why is a balanced diet important for breeding horses, and what should it include?**
8. **What types of veterinary care are essential for maintaining the health of breeding horses?**
9. **What is the purpose of a stallion in horse breeding, and how is his health managed?**
10. **How does record keeping benefit horse breeders, and what types of information should be recorded?**

**TOPIC 9**

**SPECIALTY LIVESTOCK**

**Alpaca** - альпака

**Behavioral Needs** - потреби в поведінці

**Companion Animals** - тварини-компаньйони

**Companionship** - спільність

**Diet** - харчування

**Enrichment** - розвиток (середовища)

**Exotic Pets** - екзотичні домашні тварини

**Fiber Production** - виробництво волокна

**Forage** - корм (сіножаті, грубі корми)

**Grooming** - догляд (за шерстю)

**Habitat** - місце проживання

**Health Checks** - медичні огляди

**Llama** - лама

**Load Carrying** - перенесення вантажів

**Shearing** - стрижка (шерсті)

**Shelter** - притулок

**Socialization** - соціалізація

**Temperature-Controlled** - температурний контроль

**UV Lighting** - УФ-освітлення

**Veterinary Care** - ветеринарний догляд

**Specialty Livestock**. Specialty livestock refers to the management of less common animals, such as alpacas, llamas, and exotic pets, each of which comes with unique care requirements and specific purposes. Unlike traditional livestock, these animals are often raised for their distinctive qualities or as companion animals, and they require specialized management to ensure their well-being and productivity.

**Alpacas**. Alpacas are domesticated animals native to South America, renowned for their luxurious fiber, which is used to make high-quality textiles. They are smaller than llamas and come in a variety of colors. Alpacas require a well-maintained environment with ample space to graze and exercise. Their fiber is sheared annually, typically in the spring, and requires regular grooming to prevent matting. Additionally, alpacas benefit from a diet that includes high-quality forage and a balanced supplement to ensure optimal health and fiber quality.

**Llamas**. Llamas are also native to South America and are closely related to alpacas, though they are larger and are often used as pack animals. They are known for their strong, sturdy build and are used in various roles, including trekking and carrying loads. Llamas are social animals that thrive in herds and require plenty of interaction with other llamas. Their care involves regular exercise, a diet that includes hay and grains, and routine health checks. Llamas also need proper shelter to protect them from extreme weather conditions.

**Exotic Pets**. Exotic pets, such as parrots, reptiles, and small mammals, are kept for companionship and require specialized care tailored to their unique needs. Each species has specific dietary, habitat, and health requirements. For example, parrots need a varied diet of fruits, vegetables, and nuts, along with mental stimulation through toys and social interaction. Reptiles may require temperature-controlled environments and specific UV lighting to maintain their health. Exotic pets often need specialized veterinary care and housing to ensure their well-being.

**Management**. Managing specialty livestock involves understanding their unique needs and providing appropriate care. This includes:

1. **Housing and Environment**: Ensuring that animals have suitable living conditions, such as proper shelter, space, and environmental enrichment.
2. **Nutrition**: Providing a balanced diet tailored to each species’ dietary requirements.
3. **Health Care**: Regular health checks, vaccinations, and grooming are essential to prevent disease and maintain well-being.
4. **Behavior and Socialization**: Addressing the social and behavioral needs of the animals to ensure they are well-adjusted and happy.

**Conclusion**. Specialty livestock, including alpacas, llamas, and exotic pets, offers unique opportunities for farming and companionship. By understanding and addressing their specific care requirements, owners can ensure that these animals thrive and contribute positively to their lives. Whether for fiber production, working roles, or as beloved pets, proper management is key to their health and happiness.

**Task 1. True or false**

1. Alpacas are primarily raised for their fiber, which is used to make textiles.
2. Llamas are larger than alpacas and are often used as pack animals.
3. Exotic pets, such as parrots and reptiles, do not require specialized care compared to more common pets.
4. Alpacas should be sheared annually to maintain the quality of their fiber.
5. Llamas are solitary animals and do not require interaction with other llamas.
6. Exotic pets like reptiles need temperature-controlled environments to stay healthy.
7. Proper shelter is essential for both llamas and alpacas to protect them from extreme weather conditions.
8. Exotic pets do not need specific dietary requirements and can be fed the same food as traditional pets.
9. Socialization is important for both llamas and exotic pets to ensure their well-being.
10. Fiber production from alpacas can be improved with regular grooming and proper nutrition.

**Task 2. Fill in the gaps**

1. Alpacas are primarily raised for their \_\_\_\_\_\_\_\_, which is used to make high-quality textiles.

a) meat

b) fiber

c) milk

d) hides

2. Llamas are often used as \_\_\_\_\_\_\_\_ animals due to their strength and endurance.

a) racing

b) pack

c) guard

d) show

3. Exotic pets like parrots require a \_\_\_\_\_\_\_\_ diet that includes fruits, vegetables, and nuts.

a) balanced

b) simple

c) high-protein

d) grain-based

4. To maintain the quality of alpaca fiber, they need to be \_\_\_\_\_\_\_\_ annually.

a) traine

b) fed

c) sheared

d) vaccinated

5. Llamas require \_\_\_\_\_\_\_\_ to protect them from extreme weather conditions.

a) large pens

b) grooming

c) shelter

d) special diets

6. Reptiles kept as exotic pets need \_\_\_\_\_\_\_\_-controlled environments to stay healthy.

a) light

b) humidity

c) temperature

d) noise

7. Alpacas and llamas are social animals and thrive in \_\_\_\_\_\_\_\_ environments.

a) solitary

b) crowded

c) interactive

d) isolated

8. Proper \_\_\_\_\_\_\_\_ is essential for maintaining the health and well-being of exotic pets.

a) training

b) grooming

c) veterinary care

d) feeding

9. Exotic pets like reptiles often need specific \_\_\_\_\_\_\_\_ to mimic their natural habitat.

a) toys

b) lighting

c) temperatures

d) bedding

10. Alpacas should have access to high-quality \_\_\_\_\_\_\_\_ and supplements to support their health.

a) hay

b) grain

c) water

d) grass

**Task 3. Match the words with their definitions**

**Words:**

1. Alpaca
2. Llama
3. Exotic Pets
4. Fiber Production
5. Shelter
6. Grooming
7. Diet
8. Veterinary Care
9. Temperature-Controlled
10. Socialization

**Definitions:**

a) Animals such as parrots, reptiles, and small mammals that are kept as companions and require specialized care.

b) The process of removing excess hair or wool from animals like alpacas to maintain fiber quality.

c) A domesticated animal from South America known for its fiber, which is used in textiles.

d) A domesticated animal from South America used as a pack animal and for carrying loads.

e) Providing animals with appropriate living conditions to protect them from extreme weather and ensure their well-being.

f) The practice of providing animals with a balanced intake of nutrients to support their health and growth.

g) The maintenance of animals’ health through regular check-ups, vaccinations, and treatments by a veterinarian.

h) A type of care and environment management where conditions such as temperature are controlled to meet specific needs.

i) The process of interacting with animals to help them adapt to their environment and improve their behavior.

j) The production of high-quality fiber from animals like alpacas, which is used for making textiles.

**Task 4. Answer the questions**

1. **What are alpacas primarily raised for, and how is their fiber used?**
2. **How does the role of llamas differ from that of alpacas in terms of their use and management?**
3. **What special care do exotic pets, such as parrots and reptiles, require compared to more common pets?**
4. **Why is it important to shear alpacas annually, and what does this process involve?**
5. **What are some key factors to consider when providing shelter for llamas and alpacas?**
6. **How does a temperature-controlled environment benefit reptiles kept as exotic pets?**
7. **Why is socialization important for both llamas and exotic pets, and how can it be achieved?**
8. **What are the components of a balanced diet for alpacas and llamas, and why is it crucial for their health?**
9. **What type of veterinary care is essential for maintaining the health of exotic pets?**
10. **How does proper grooming contribute to the health and well-being of alpacas?**

**TOPIC 10**

**PASTURE AND FORAGE MANAGEMENT**

**Cultivation** – обробіток

**Erosion** - ерозія

**Fertilization** - добриво

**Forage** - корм

**Grasses** - трави

**Livestock** - сільськогосподарські тварини

**Monitoring** - моніторинг

**Mowing** - косіння

**Nutrient** - поживна речовина

**Organic Matter** - органічна речовина

**Pasture** - пасовище

**Recovery** - відновлення

**Rotational Grazing** - ротаційне випасання

**Seeding** - посів

**Soil Health** - стан ґрунту

**Soil pH** - pH ґрунту

**Supplemental Feed** - додатковий корм

**Sustainability** - стійкість

**Weed Control** - контроль бур'янів

**Pasture and Forage Management**. Pasture and forage management is a critical branch of animal husbandry that focuses on the cultivation and maintenance of grasses and other plants that animals graze on. Effective management of pastures and forage is essential for optimizing animal nutrition, promoting soil health, and ensuring the sustainability of grazing systems.

**Cultivation of Grasses and Forage Plants**. The cultivation of pastures begins with selecting appropriate grass and forage species suited to the local climate, soil type, and intended use. Common forage grasses include ryegrass, clover, and timothy, each offering different nutritional benefits. Forage plants are chosen based on their growth patterns, nutrient content, and ability to withstand grazing pressure. Proper seeding techniques and soil preparation are crucial to establish a healthy and productive pasture.

**Maintenance Practices**. Maintaining a productive pasture involves regular practices such as mowing, fertilization, and weed control. Mowing helps manage plant height and promotes even growth, while fertilization provides essential nutrients to the soil and encourages vigorous forage growth. Weed control is important to prevent invasive species from outcompeting desirable forage plants. Additionally, rotational grazing, where animals are moved between different pasture areas, allows grass to recover and prevents overgrazing.

**Optimizing Animal Nutrition**. Well-managed pastures and forages provide high-quality feed that is essential for optimal animal nutrition. Different types of forage offer varying levels of protein, fiber, and energy, which can be tailored to meet the specific needs of different livestock species. Regular monitoring of forage quality and quantity helps ensure that animals receive a balanced diet that supports their growth, reproduction, and overall health.

**Soil Health**. Soil health is a key component of effective pasture management. Healthy soils support robust forage growth and contribute to sustainable grazing systems. Practices such as maintaining proper soil pH, adding organic matter, and preventing soil erosion help sustain soil fertility and structure. Additionally, avoiding overgrazing and allowing pastures to rest and recover are important for preventing soil degradation.

**Benefits of Pasture and Forage Management**. Proper pasture and forage management offers several benefits:

1. **Enhanced Animal Health**: Well-maintained pastures provide nutritious feed that supports animal health and productivity.
2. **Improved Soil Quality**: Healthy pastures contribute to soil fertility and reduce erosion.
3. **Economic Efficiency**: Efficient forage management reduces the need for supplemental feed and lowers overall feeding costs.
4. **Environmental Sustainability**: Sustainable grazing practices help preserve natural ecosystems and reduce the environmental impact of livestock production.

**Conclusion**. Effective pasture and forage management is essential for the success of grazing systems. By focusing on the cultivation and maintenance of high-quality forages, optimizing animal nutrition, and promoting soil health, farmers and ranchers can enhance the productivity and sustainability of their operations. Proper management practices ensure that pastures remain a vital resource for supporting healthy livestock and maintaining environmental balance.

**Task 1. True or false**

1. Pasture and forage management focuses solely on the cultivation of crops for human consumption.
2. Rotational grazing helps prevent overgrazing by allowing pasture plants to recover between grazing periods.
3. Fertilization of pastures is unnecessary if the soil is already rich in nutrients.
4. Mowing is a practice used to manage the height of forage plants and promote even growth.
5. Weed control is not important in pasture management because weeds do not affect forage quality.
6. Monitoring forage quality and quantity is essential for ensuring animals receive a balanced diet.
7. Healthy soil supports robust forage growth and contributes to sustainable grazing systems.
8. Overgrazing can lead to soil erosion and reduced forage quality.
9. Organic matter added to soil helps improve soil fertility and structure.
10. Pastures do not need to rest and recover if they are properly managed with rotational grazing.

**Task 2. Fill in the gaps**

1.Effective \_\_\_\_\_\_\_\_ of pastures involves selecting the right grass and forage species for the local environment.

a) harvesting

b) cultivation

c) irrigation

d) grazing

2. Rotational grazing helps prevent \_\_\_\_\_\_\_\_ by allowing pasture plants time to recover between grazing periods.

a) fertilization

b) overgrazing

c) seeding

d) mowing

3. To maintain pasture health, regular \_\_\_\_\_\_\_\_ is necessary to manage plant height and promote even growth.

a) fertilization

b) harvesting

c) mowing

d) irrigation

4. Weed control is important in pasture management to prevent \_\_\_\_\_\_\_\_ from outcompeting desirable forage plants.

a) erosion

b) overgrazing

c) pests

d) invasive species

5. A balanced \_\_\_\_\_\_\_\_ for livestock ensures they receive the nutrients needed for optimal growth and health.

a) shelter

b) diet

c) housing

d) medication

6. Maintaining good \_\_\_\_\_\_\_\_ health supports robust forage growth and contributes to sustainable grazing systems.

a) animal

b) soil

c) pasture

d) water

7. Adding \_\_\_\_\_\_\_\_ matter to soil helps improve its fertility and structure, benefiting pasture growth.

a) organic

b) chemical

c) mineral

d) synthetic

8. Monitoring forage \_\_\_\_\_\_\_\_ and quantity is crucial to ensure that animals are receiving a balanced diet.

a) color

b) quality

c) type

d) height

9. Overgrazing can lead to \_\_\_\_\_\_\_\_ and reduced forage quality, making pasture management essential.

a) soil erosion

b) waterlogging

c) plant disease

d) compaction

10. Proper \_\_\_\_\_\_\_\_ practices involve rotating livestock between different pasture areas to prevent overuse.

- a) fertilization

- b) irrigation

- c) grazing

- d) seeding

**Task 3. Match the words with their definitions**

**Words:**

1. Pasture
2. Forage
3. Cultivation
4. Fertilization
5. Rotational Grazing
6. Weed Control
7. Soil Health
8. Organic Matter
9. Mowing
10. Overgrazing

**Definitions:**

a) The process of adding nutrients to the soil to support plant growth and improve pasture productivity.

b) The practice of moving livestock between different grazing areas to prevent overuse and allow forage to recover.

c) A method of controlling unwanted plants in pastures to prevent them from outcompeting desirable forage species.

d) A practice that involves cutting grass to manage its height and promote even growth.

e) The process of preparing and maintaining land for growing forage crops.

f) The condition of soil that supports the healthy growth of plants and contributes to sustainable land use.

g) Plants that animals graze on, including grasses and legumes, used for feeding livestock.

h) Depleting a pasture’s plant cover through excessive grazing, which can lead to soil erosion and reduced forage quality.

i) Natural materials, such as decomposed plant matter, added to soil to enhance its fertility and structure.

j) Land where grasses and other forage plants are grown for grazing animals.

**Task 4. Answer the questions**

1. **What is the primary purpose of cultivating pasture land?**
2. **How does rotational grazing benefit pasture health and forage quality?**
3. **Why is regular mowing important for managing pasture plants?**
4. **What role does fertilization play in maintaining productive pastures?**
5. **How does weed control affect the quality of forage in pastures?**
6. **What is the definition of organic matter, and why is it important for soil health?**
7. **How does overgrazing impact soil and forage quality in pastures?**
8. **What factors should be considered when selecting forage species for a pasture?**
9. **How can monitoring forage quality and quantity help in optimizing livestock nutrition?**
10. **What are the key benefits of maintaining good soil health in pasture management?**

**TOPIC 11**

**ANIMAL HEALTH AND VETERINARY SCIENCE**

**Animal Welfare** - добробут тварин

**Biohazard** - біологічна небезпека

**Biosecurity** - біобезпека

**Diagnosis** - діагностика

**Disease Surveillance** - моніторинг захворювань

**Early Detection** - раннє виявлення

**Epidemiology** - епідеміологія

**Ethical Treatment** - етичне ставлення

**Herd Health** - здоров'я стада

**Humane Handling** - людяне поводження

**Infection Control** - контроль інфекцій

**Laboratory Tests** - лабораторні дослідження

**Management Practices** - практики управління

**Medication** - дікарські засоби

**Outbreak** - спалах

**Physical Examination** - фізичний огляд

**Preventive Measures** - профілактичні заходи

**Treatment** - лікування

**Vaccination** - вакцинація

**Veterinarian** - ветеринар

**Animal Health and Veterinary Science**. Animal health and veterinary science is a crucial field that focuses on the prevention, diagnosis, and treatment of diseases in livestock. This branch of veterinary science plays a vital role in maintaining the health and productivity of farm animals, ensuring their well-being, and supporting the agricultural industry.

**Prevention of Diseases**. Preventive measures are fundamental in animal health management. Vaccination programs are a key component, designed to protect livestock from common and potentially severe diseases. Regular vaccinations help prevent outbreaks of diseases such as foot-and-mouth disease, brucellosis, and avian influenza. Implementing biosecurity measures, such as controlling access to animal facilities and maintaining sanitary conditions, also reduces the risk of disease transmission.

**Diagnosis and Treatment**. Veterinary science involves diagnosing and treating illnesses and injuries in livestock. Veterinarians use various diagnostic tools, including physical examinations, laboratory tests, and imaging techniques, to identify the cause of health issues. Once a diagnosis is made, appropriate treatment plans are developed, which may include medication, surgical procedures, or changes in management practices. Early detection and intervention are crucial to prevent the spread of disease and minimize the impact on animal health.

**Disease Surveillance**. Disease surveillance is an ongoing process that monitors animal health and identifies emerging or re-emerging diseases. This includes tracking disease outbreaks, analyzing trends, and conducting research to understand the epidemiology of diseases. Surveillance systems help in early detection of potential threats, enabling timely response and containment measures to prevent widespread outbreaks.

**Improving Animal Welfare**. Veterinary science is also concerned with improving animal welfare. This includes ensuring that animals are housed in environments that meet their physical and psychological needs. Proper nutrition, adequate housing, and humane handling practices are essential for promoting the overall well-being of livestock. Veterinarians play a role in advising farmers on best practices for animal care and welfare, ensuring that animals are treated ethically and humanely.

**Benefits of Animal Health and Veterinary Science**

1. **Enhanced Productivity**: Healthy animals are more productive, providing better yields of meat, milk, and other products.
2. **Disease Prevention**: Vaccinations and preventive measures help avoid costly outbreaks and maintain herd health.
3. **Early Detection**: Regular veterinary care allows for early diagnosis and treatment, reducing the impact of diseases.
4. **Animal Welfare**: Improved care practices enhance the quality of life for livestock and promote ethical treatment.
5. **Public Health**: Monitoring and controlling animal diseases contribute to the safety of food products and protect human health.

**Conclusion**. Animal health and veterinary science is essential for the sustainability and efficiency of livestock production. By focusing on disease prevention, accurate diagnosis, effective treatment, and animal welfare, this field ensures that livestock remain healthy and productive. Veterinary professionals play a vital role in supporting farmers, enhancing animal welfare, and safeguarding public health through comprehensive health management strategies.

**Task 1. True or false**

1. Vaccination programs are used to prevent diseases in livestock by providing immunity against specific pathogens.
2. Biosecurity measures include practices such as controlling access to animal facilities and maintaining sanitation to prevent disease spread.
3. Disease surveillance is only conducted during outbreaks and does not involve monitoring ongoing animal health.
4. Veterinarians diagnose illnesses in livestock using physical examinations, laboratory tests, and imaging techniques.
5. Preventive measures are not necessary if animals appear healthy and show no signs of illness.
6. Early detection of diseases in livestock can help reduce the impact and prevent widespread outbreaks.
7. Animal welfare involves ensuring that livestock have adequate housing, nutrition, and humane handling practices.
8. Treatment for livestock diseases is typically administered only after a disease has caused significant symptoms.
9. The role of a veterinarian includes advising farmers on best practices for animal care and welfare.
10. Epidemiology studies the spread and control of diseases within animal populations and helps in managing health risks.

**Task 2. Fill in the gaps**

1. Vaccination programs help \_\_\_\_\_\_\_\_ livestock from various diseases by building immunity.

a) diagnose

b) treat

c) prevent

d) monitor

2. Biosecurity measures include controlling access to animal facilities and maintaining \_\_\_\_\_\_\_\_ to prevent disease spread.

a) nutrition

b) sanitation

c) breeding

d) exercise

3. Disease \_\_\_\_\_\_\_\_ involves tracking and monitoring animal health to detect and manage potential outbreaks.

a) diagnosis

b) prevention

c) surveillance

d) treatment

4. Veterinarians use \_\_\_\_\_\_\_\_ examinations to identify health issues in livestock.

a) financial

b) physical

c) genetic

d) environmental

5. Effective \_\_\_\_\_\_\_\_ measures are essential even if animals show no visible signs of illness.

a) management

b) preventive

c) marketing

d) harvesting

6. Early \_\_\_\_\_\_\_\_ of diseases helps minimize their impact and prevent the spread within a herd.

a) treatment

b) detection

c) handling

d) feeding

7. Animal \_\_\_\_\_\_\_\_ ensures that livestock are housed properly, fed well, and treated humanely.

a) nutrition

b) welfare

c) breeding

d) production

8. Treatment plans for livestock often include \_\_\_\_\_\_\_\_ to manage and cure diseases.

a) marketing strategies

b) medication

c) breeding techniques

d) financial audits

9. Veterinarians provide advice on best practices for \_\_\_\_\_\_\_\_ and animal care.

a) construction

b) marketing

c) animal welfare

d) finance

10. The study of \_\_\_\_\_\_\_\_ helps in understanding how diseases spread and how to control them in animal populations.

a) finance

b) epidemiology

c) genetics

d) production

**Task 3. Match the words with their definitions**

**Words:**

1. Vaccination
2. Disease Surveillance
3. Diagnosis
4. Treatment
5. Biosecurity
6. Preventive Measures
7. Animal Welfare
8. Epidemiology
9. Veterinarian
10. Biohazard

**Definitions:**

a) The practice of moving livestock between different grazing areas to prevent overuse and allow forage to recover.

b) The process of identifying a disease or condition in animals based on symptoms, tests, and examinations.

c) Natural materials, such as decomposed plant matter, added to soil to enhance its fertility and structure.

d) Measures and practices aimed at preventing the introduction and spread of diseases in livestock.

e) The process of administering vaccines to protect animals from specific diseases.

f) The study of how diseases spread and can be controlled within animal populations.

g) The overall health and well-being of animals, including proper housing, nutrition, and humane treatment.

h) The role of a professional who diagnoses and treats diseases in animals.

i) Ongoing monitoring and tracking of animal health to detect and manage diseases and outbreaks.

j) A substance or situation that poses a risk of spreading disease to humans or animals.

**Task 4. Answer the questions**

1. **What is the primary purpose of vaccination in livestock?**
2. **How does disease surveillance contribute to effective animal health management?**
3. **What steps are involved in diagnosing a disease in livestock?**
4. **How does biosecurity help prevent the spread of diseases in animal populations?**
5. **What are some common preventive measures used in veterinary science to protect animal health?**
6. **What aspects of animal welfare are considered when managing livestock?**
7. **How does epidemiology assist veterinarians in controlling outbreaks of animal diseases?**
8. **What roles and responsibilities does a veterinarian have in ensuring animal health?**
9. **Why is it important for veterinarians to use both physical examinations and laboratory tests in diagnosing animal diseases?**
10. **What is a biohazard, and how does it affect animal health and safety?**