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**Английский язык**

**Farm Animals**

*Рекомендовано учебно-методическим объединением*

*по образованию в области сельского хозяйства в качестве*

*учебно-методического пособия для студентов высших учебных*

*заведений, обучающихся по специальности 1-74 03 01 Зоотехния*

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| М15 | **Макаренко, И. П.**  Английский язык. Farm Animals : учебно-методическое пособие / И. П. Макаренко. – Горки : БГСХА, 2018. – 105 с.  ISBN  Приведены тексты и упражнения для обучения специальной лексике и развития умений чтения профессиональной литературы.  Для студентов высших учебных заведений, обучающихся по специальности 1-74 03 01 Зоотехния. |

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**Введение**

Настоящее пособие предназначено для студентов 1-го курса факультета биотехнологии и аквакультуры, обучающихся по специальности 1-74 03 01 Зоотехния.

Цель пособия – обеспечить овладение студентами основными терминами, сформировать у студентов умения вдумчивого чтения текстов по специальности с полным извлечением и интерпретацией информации, а также развить умения быстрого чтения, направленного на поиск нужных данных и составление общего представления о прочитанном. Сопутствующая задача – развитие умений устной речи в ходе обсуждения прочитанного.

В основу пособия положена система текстов, взятых из аутентичных источников. Пособие включает 8 разделов, посвященных вопросам скотоводства, коневодства, козоводства, овцеводства, свиноводства, кролиководства, птицеводства и пчеловодства.

Каждый раздел включает два текста – А и Б, снабженных словарем и специально разработанными упражнениями. Предтекстовые упражнения направлены на усвоение лексики и формирование потенциального словаря обучаемых. Работа с текстом А предполагает тщательное изучение имеющейся в нем информации и предусматривает ответы на вопросы, определение истинности/лож-ности утверждений, заполнение таблиц, установление логических связей, обобщение информации и выражение собственного мнения. Работа с текстом В предусматривает поиск различной информации, ответы на вопросы, касающиеся основного содержания, оценку прочитанного.

После обучающих разделов в пособии имеется вопросник-викторина, позволяющий обучаемым проверить знание фактов, касающихся домашних животных.

В конце пособия приводится общий расширенный алфавитный словарь специальной лексики, облегчающий работу студентов.

Разработанные задания могут использоваться как на аудиторных занятиях, так и внеаудиторно.

**UNIT 1**

What do you know about cattle?

**1.1. Learn the following words before reading text A.**

flock – отара, стадо

bull – бык

cow [kaʊ] – корова

cattle – крупный рогатый скот

ox – бык, *мн.* – oxen

to breed [briːd] – разводить

species [ˈspiːʃiːz] – вид

long-horned – длиннорогий

steer [stɪə] – кастрированный бык

to neuter [ˈnjuːtə] – кастрировать

lifespan – продолжительность жизни

to weigh [weɪ] – весить

ruminant – жвачное животное

mammal – млекопитающее

section – отдел

tо swallow [ˈswɒləʊ] – глотать

to mix – перемешивать

to soften – размягчать

chamber [ˈtʃeɪmbə] – отдел (*желудка*)

stomach [ˈstʌmək] – желудок

mouth – рот

cud – жвачка

to chew [tʃuː] – жевать

rumen [ˈruːmən] – рубец

reticulum [rɪˈtɪkjʊləm] – сетка

omasum [əʊˈmeɪsəm] – книжка

abomasum [ˌæbə(ʊ)ˈmeɪsəm] – сычуг

moisture [ˈmɔɪstʃə] – влага

to squeeze [skwiːz] out – выжимать

to digest [daɪˈdʒest] – переваривать

gastric [ˈɡæstrɪk] juice – желудочный сок

female [ˈfiːmeɪl] – самка; женский, женского пола

male [meɪl] – самец; мужской, мужского пола

to nourish [ˈnʌrɪʃ] – кормить

dairy [ˈdeəri] cow – молочная корова

beef [biːf] cow – мясная корова

udder [ˈʌdə] – вымя

calf [kɑːf] – теленок, мн. – calves [kɑːvz]; телиться

heifer [ˈhefə] – телка

**1.2. Practise the pronunciation of the following words.**

Ancestor [ˈænsestə], aurochs [ˈɔːrɒks], bison [ˈbaɪsn], migratory [ˈmaɪɡrətri], Pleistocene [plaɪstə(ʊ)siːn], era [ˈɪərə], Europe [ˈjʊərəp], Asia [ˈeɪʒə], ancient [ˈeɪnʃ(ə)nt], Egyptian [ɪˈdʒɪpʃ(ə)n], Babylonian [ˌbæbɪˈləʊnɪən], Assyrian [əˈsɪrɪən].

**1.3. Read the words and translate them into Russian paying atten­tion to the prefix re-.**

To read – to reread, to write – to rewrite, to tell – to retell, to move – to remove, to chew to – to rechew, to swallow – to reswallow.

1.4. Match the synonyms**.**

|  |  |
| --- | --- |
| 1. ox | a. a young cow |
| 2. to nourish | b. raising |
| 3. significant | c. important |
| 4. chamber | d. to feed |
| 5. flock | e. section |
| 6. breeding | f. water |
| 7. heifer | g. herd |
| 8. moisture | h. bull |

**1.5. Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. calf  2. stomach | a. an animal which is fed when young on milk from  the mother’s body |
| 3. ruminant | b. a kind of an animal |
| 4. cud | c. a neutered bull |
| 5. mammal | d. the young of [cattle](https://en.wikipedia.org/wiki/Cattle) |
| 6. to domesticate | e. a hard pointed part that grows on the heads of cattle |
| 7. horn  8. species | f. a baglike organ in the body where food is digested after being eaten |
| 9. steer | g. food that has been swallowed and brought up again to the mouth from the first stomach of the cow for further eating |
|  | h. to make an animal able to live with people and work for them |
|  | i. an animal which brings back food from the stomach and bites it over and over again |

**1.6.** Fill in the gaps with the words from ex. 1.5. You may have to make small changes in these words.

1. Cattle have sharp ... of different shapes.

2. The ... of cattle has four sections.

3. Humans and dogs are ... , fish and birds are not.

4. Rumen is the first section of the stomach of... animals.

5. Cows were ... to provide us with milk.

6. Young ... are kept for meat.

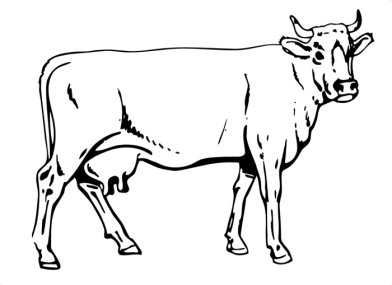
7. Cows always chew ... .

8. This rare bird can become an endangered … .

9. A newborn ... weighs between 25 to 45 kg.

**1.7. Read the text and do the tasks that follow.**

**Text A: Cattle**

The domestication of cattle was one of the most significant events in human history. Sheep and goat **herders1** were still largely migratory peoples, seasonally driving their flocks between **pastures2**. The ox allowed humans to till the soil, settle and build villages and towns.

The Babylonians and the Assyrians were the first to breed oxen. They were used for many purposes including meat, milk, and labor.

Modern cattle are significantly different today from the earliest domesticated versions. They are raised on every continent except Antarctica. They are used for milk, meat, transport, entertainment, and power.

***Highlights of the History of Cattle***

Cattle originated millions of years ago in India. By the early Pleistocene era, they had migrated to Europe, North Africa, and the rest of Asia. Cattle belong to the ox family, like the bison, yak and water buffalo.

An early species of long-horned cattle, the **aurochs3**, was hunted by people during the Stone Age. Cave drawings of the aurochs have survived from 30,000 B.C., and it was first domesticated around 10,000 B.C.

The ancient Egyptians **worshipped4** the bull-god Apis. Because of their belief that cattle were **sacred5**, the Egyptians raised the animals in luxury and let them die of old age rather than killing them for food.

Long-horned cattle traveled with Christopher Columbus to the New World, landing in the West Indies in 1493. In 1624 the Pilgrims imported cattle to New England.

American pioneers used steers (neutered bulls) to pull **covered wagons6** and **plows7**. Steers were slower than horses, but they **stood8** the heat better and didn’t need as much water.

***Cattle Facts***

There are almost 1,200 million cattle in the world. The United States has about 180 million. India has over 176 million, but India also has the lowest consumption of beef, because cows are considered sacred by Indians who practise the Hindu religion.

Cattle stand about five feet tall and weigh from 1,000 to 2,000 **lbs9**. Their average lifespan is 15 years, although some live up to 30 years.

Cattle are ruminants – mammals whose stomachs have four sections. After they swallow their food, it’s mixed and softened in the first two chambers of the stomach – the rumen and the reticulum. Then it returns to the mouth as a ball called “cud”, which is rechewed thoroughly. The food is then reswallowed and passes through the first two stomach sections into the third, the omasum, where moisture is squeezed out. The fourth chamber, the abomasum, actually digests the food through the action of gastric juices.

Dairy cows tend to have much larger udders than beef cows and usually produce more milk than what is needed to nourish one calf. Most dairy cows can give milk for five or six years, but some produce milk for 20 years or more. A young female before she has had a calf of her own and is under three years of age is called a [heifer](https://en.wiktionary.org/wiki/heifer).

For the first three weeks of the calf’s life they only drink their mother’s milk, because their rumen is not yet fully developed. Between 3-8 weeks the calf starts eating some grass along with the milk. After eight weeks the calf’s rumen should be fully functioning.

***Notes to the text:***

***1 – пастухи***

***2 – пастбища***

***3 – зубр***

***4 – поклонялись***

***5 – священный***

***6 – крытые фургоны***

***7 – плуги***

***8 – переносили, выдерживали***

***9 – сокращ. от* pounds *от лат.* librae *– фунты***

**1.8. Answer the following questions.**

1. Why was the domestication of cattle significant in human history?

2. What are cattle used for?

3. What is the homeland of cattle?

4. What animal was the ancestor of domestic cattle?

5. When was the aurochs first domesticated?

6. What is the amount of cattle in the world?

7. What kind of mammals are cattle?

8. How many sections do cattle’s stomachs have? What are they?

9. When does the calf’s rumen become fully developed?

**1.9. Say whether the following statements are true or false. Correct the false ones.**

1. Sheep and goat herders were settled peoples.

2. The ox gave humans an opportunity to migrate.

3. The Babylonians and Assyrians were the first to use oxen.

4. Cows are protected as sacred in Islam.

5. Cattle belong to the ox family.

6. The Egyptians raised cattle for food.

7. Christopher Columbus brought cattle to the West Indies in 1493.

8. American pioneers preferred steers to horses because they were hardier.

9. The cow is a worshipped animal in India.

10. The average lifespan of cattle is 30 years.

11. Beef cows tend to have much larger udders than dairy cows.

12. Some cows give milk for more than 20 years.

**1.10. Find the English equivalents of the following words and word combinations in the text.**

Одомашнивание животных, продолжительность жизни, жвачное животное, отдел желудка, желудочный сок, крупный рогатый скот, вид, влага, пережевывать, проглатывать, рубец, сетка, книжка, сычуг, жвачка, перемешивать, размягчать, разводить, теленок, телка, вымя.

**1.11. Open the brackets and translate the Russian words and phrases into English.**

1. (Современный крупный рогатый скот) are significantly different today from the earliest domesticated versions.

2. Cattle (разводят на каждом континенте) except Antarctica.

3. (Молочные коровы) produce more milk than what is needed to nourish one calf.

4. (Кастрированные быки) pulled covered wagons and plows of American pioneers.

5. Due to the Hindu religion India has (самое низкое потребление говядины).

6. In the fourth section of the stomach the food is digested (за счет действия желудочного сока).

**1.12. Translate the sentences into English.**

1. Одомашнивание крупного рогатого скота было одним из наиболее важных событий в истории человечества.

2. Рост крупного рогатого скота достигает свыше пяти футов.

3. Крупный рогатый скот весит от 1000 до 2000 фунтов.

4. В первых двух отделах желудка пища перемешивается и размягчается.

5. В третьем отделе желудка из пищи выжимается влага.

6. Жвачка снова тщательно пережевывается.

7. Коровы, как правило, дают молоко 5–6 лет.

8. Между третьей и восьмой неделями теленок начинает есть траву.

**1.13. Complete the sentences using suitable words from the text.**

1. Cattle ... millions of years ago in India.

2. The aurochs ... by people during the Stone Age.

3. ... traveled with Christopher Columbus to the New World.

4. In 1624 the Pilgrims … cattle to New England.

5. Steers ... heat better than horses.

6. Cattle are ruminants and their … have four sections.

7. The food returned to the mouth from the stomach is called ... .

8. The fourth chamber ... the food.

**1.14. Describe the digestive process of cattle.**

**1.15. Compare the temper of a cow and a bull, and say which one is easier to deal with and how they are used.**

**1.16. Match the English proverbs with their Russian equivalents. Can you remember any situations that can be illustrated by these proverbs?**

|  |  |
| --- | --- |
| 1. The bull must be taken by the horns. | А. Слезами горю не поможешь.  В. С одного вола двух шкур не |
| 2. You cannot sell the cow and drink the milk. | дерут.  С. Бери быка за рога. |
| 3. An old ox makes a straight furrow. | D. Старый конь борозды не портит. Е. Кто украл яйцо, украдет и курицу. |
| 4. Не that will steal an egg will steal an ох. | F. И от хорошего плохое родится. |
| 5. Many a good cow has an evil calf. |  |
| 6. It’s no use crying over spilt milk. |  |

**1.17. Learn the words before reading text B.**

cattle breeding – скотоводство

efficient [ɪˈfɪʃ(ə)nt] – продуктивный

feed efficiency [ɪˈfɪʃ(ə)nsi] – эффективность использования кормов

to measure [ˈmeʒə] – измерять

stage [steɪdʒ] – стадия

grain [ɡreɪn] – зерно

intake [ˈɪnteɪk] – потребление

feedlot – откормочная площадка

records – учетные документы

forage [ˈfɒrɪdʒ] – грубый корм

to graze [ɡreɪz] – пасти(сь)

beef – говядина

beef cattle – мясной скот

nutrition [njʊˈtrɪʃ(ə)n] – питание; кормление

nutritional requirements [rɪˈkwaɪəm(ə)nts] – потребности в питательных элементах

relationship – взаимосвязь

growing period – период выращивания

finishing period – заключительный период откорма

dry matter – сухое вещество

daily gain – суточный прирост

study – исследование

feed waste [weɪst] – непроизводительный расход кормов

carcass [ˈkɑːkəs] – туша

profit – прибыль

output – выход продукции

input – расход, потребление

generation [ˌdʒenəˈreɪʃ(ə)n] – поколение

appearance [əˈpɪər(ə)ns] – внешность

trait [treɪt] – признак

behaviour [bɪˈheɪvjə] – поведение

**1.18. Read the title of text B. Judging by the title and the words from ex. 1.17., which of these things do you think are mentioned in it? Look through the text and write the numbers of the paragraphs in which you found them.**

1) genetic engineering of cattle;

2) measuring how much cattle eat during different life stages;

3) determining the relationship between dry matter intake and average daily gain;

4) raising more efficient animals;

5) carcass characteristics;

6) traits making up cattle phenotype.

**1.19. Find in the text the words that mean the following:**

1) a period in a process or development (*paragraph 1*);

2) a plot of land on which livestock are fattened for market (*paragraph 2*);

3) the process of providing or obtaining the nutrients necessary for health and growth (*paragraph 2*);

4) food such as grass or hay for horses and cattle (*paragraph 2*);

5) money gained by business (*paragraph 6*);

6) all people/animals of about the same age (*paragraph 7*);

**1.20. Look at paragraphs 1, 4, and 8 again. What words have the same meaning as:**

|  |  |
| --- | --- |
| • union *(paragraph 1)* | • correlation *(paragraph 4)* |
| • productive *(paragraph 1)* | • information *(paragraph 8)* |
| • colleague *(paragraph 4)* | • research *(paragraph 8)* |

**1.21. Read the text and do the tasks that follow.**

**Text B: Feed Intake Study in Beef Cattle Could Lead**

**to More Efficient Breeds**

1A change is coming to the cattle breeding industry. Breed associations have long been interested in finding the genetic basis for feed efficiency, with the aim of breeding more efficient animals. But the first step – accurately measuring how much cattle eat across different life stages and diet types – has been a missing piece. A new study helps fill the gap.

2“Grain intake in the feedlot is relatively easy to measure and the industry now has a substantial number of feed intake records. But forage intake while a cow is grazing is extremely difficult to measure.” says Dan Shike, associate professor of beef cattle nutrition in the Department of Animal Sciences at the University of Illinois.

3Intake regulation varies depending on diet type. In other words, a cow can fill up on forages before meeting her basic nutritional requirements. The same cow being fed grain in a controlled setting like a feedlot will likely meet those requirements on less feed.

4Shike and a large team of collaborators from 11 institutions set out to determine if there was a relationship between feed efficiency in forage-fed cattle and in grain-fed cattle. Heifers were fed forage during a growing period of 70 days, then switched to grain for a 70-day finishing period. Steers were fed grain for both periods. The team looked for relationships between dry matter intake and average daily gain in the two periods, and found a strong correlation for both heifers and steers for dry matter intake.

5“The study suggests that dry matter intake is repeatable across varying stages of maturity and diet types in cattle, and accurate feed efficiency measures can be obtained in either the growing or finishing period,” Shike says.

6Having more information about feed intake can lead to a more economical operation. Raising more efficient animals can reduce feed waste and potentially increase profits.

7“We, as a cattle industry, are very good at tracking our outputs,” Shike says. “We know how they grow, what their carcass characteristics are, and we can predict those very well in the next generation. But we don’t have data on the input; really just a few feed intake records existed prior to this project. Some breeds had no feed intake records.”

8An animal’s feed intake is just one of the many traits that make up its phenotype – or appearance and behavior. The study provides more data on this trait across the lifespans of both steers and heifers.

**1.22. Answer the questions.**

1. Why do breed associations want to find the genetic basis for feed efficiency?

2. What has been a missing piece in it?

3. What kind of feed intake is easy to measure?

4. What kind of feed intake is difficult to measure? Why?

5. What did Shike and his colleagues set out to determine?

6. What did they find?

7. How can feed waste be reduced?

8. What is the cattle industry good at?

9. What data do they lack?

10. What kind of data does the study provide?

**1.23. Say whether these statements are true or false or not mentioned in the text. Correct the false ones.**

1. The cattle breeding industry is going to change.

2. The change will take 10 years.

3. Dan Shike is a Canadian veterinarian.

4. A grazing cow can fill up before meeting her basic nutritional requirements.

5. Steers were fed forage for both growing and finishing periods.

6. Dry matter intake varies across different stages of maturity and diet types in cattle.

7. Cattle breeders can predict carcass characteristics in the next generation.

8. Some breeds had no feed intake records at all.

9. Phenotype includes appearance and behavior.

10. The scientists identified the genes responsible for the quality of the carcass.

**1.24. Join the halves of the sentences. Consult text B while doing it.**

|  |  |
| --- | --- |
| 1. Intake regulation | a. during the growing period. |
| 2. A cow being fed grain in a controlled setting | b. can lead to a more economical operation. |
| 3. Heifers were fed forage  4. The same heifers were fed grain | c. can be obtained in either the growing or finishing period. |
| 5. Accurate feed efficiency | d. varies depending on diet type. |
| measures | e. during the finishing period. |
| 6. Having more information about feed intake | f. will likely meet nutritional requirements on less feed. |

**1.25. Describe the feeding experiment.**

**1.26. Speak about the importance of the study. Give as many reasons as you can. Make use of the words: *efficient breeds, feed efficiency, input, economical operation,* *feed waste, profit*.**

**UNIT 2**

**What do you know about horses?**

**2.1. Learn the following words before reading text A.**

horse [hɔːs] – лошадь

to tame – приручать, одомашнивать

to buck – становиться на дыбы

to break – объезжать, приучать к поводьям

stirrup [ˈstɪrəp] – стремя

girth [ɡəːθ] – подпруга

bridle [ˈbraɪd(ə)l] – уздечка

saddle [ˈsæd(ə)l] – седло

mane [meɪn] – грива

hoof [huːf] – копыто, *мн.* – hoves [huːvz]

tail – хвост

handler – человек, ухаживающий за лошадью; дрессировщик

to handle – ухаживать; обращаться, управлять

to whinny [ˈwɪni] – тихо ржать

to neigh [neɪ] – ржать

to ride – ехать верхом

mount – лошадь для верховой езды

to kick – лягать(ся)

to bite – кусать(ся)

to bolt [bəʊlt] – убежать, понести (о лошади)

stable – стойло; конюшня

horsemanship – искусство верховой езды

height [haɪt] – рост; высота

hand – *здесь*: ладонь (единица измерения роста лошади, равная 10 см)

heavy draft [drɑːft] – тяжеловоз

pony [ˈpəʊni] – пони

light – легкий

stallion [ˈstaljən] – жеребец

mare [meə] – кобыла

mature [məˈtʃʊə] – зрелый

foal [fəʊl] – жеребенок

colt [kəʊlt] – жеребчик

filly [ˈfɪli] – кобылка

dam [dæm] – (кобыла-)производительница, матка

to inherit [ɪnˈherɪt] – наследовать

sire [ˈsaɪə] – (жеребец-)производитель

sense – чувство

grass – трава

hay – сено

bran – отруби

oats [əʊts] – овес

carrot [ˈkærət] – морковь

**2.2. Practise the pronunciation of the following words.**

Eurasian [jʊ(ə)ˈreɪʒ(ə)n], Chinese [ˌtʃaɪˈniːz], Siberia [sʌɪˈbɪərɪə], Missouri [mɪˈzʊəri], conquistador [kɒnˈkwɪstədɔː], polo [ˈpəʊləʊ], rodeo [ˈrəʊdɪəʊ], machine [məˈʃiːn], knight [naɪt].

**2.3. Find the odd word in each line. Use a dictionary if necessary.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1) aggressive | tall | nervous | curious | stubborn |
| 2) mystery | anger | fear | contentment | well-being |
| 3) stallion | mare | piglet | foal | colt |
| 4) oats | water | barley | bran | carrots |
| 5) mane | hoof | armor | tail | skin |
| 6) saddle | bridle | chariot | girth | stirrup |

**2.4. Match the synonyms.**

|  |  |
| --- | --- |
| 1. ancestor | a. fear |
| 2. stamina | b. partner |
| 3. companion | c. hardiness |
| 4. intelligent | d. forefather |
| 5. to bolt | e. clever |
| 6. fright | f. to run away |

**2.5.** **Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. dam | a. a young male horse |
| 2. predator | b. a small horse |
| 3. stallion | c. to travel sitting on a horse |
| 4. filly | d. the mother of a four-legged animal |
| 5. mare | e. a wild animal that kills and eats other animals |
| 6. sire | f. a young female horse |
| 7. colt | g. a mature male horse |
| 8. to ride | h. to make a loud long cry |
| 9. foal | i. the father of a four-legged animal |
| 10. pony | j. a mature female horse |
| 11. to neigh | k. a baby horse |

**2.6. Fill in the gaps with the words from the box given below. Consult text A in case of difficulties.**

|  |
| --- |
| riding predators to break stallion  ponies dam foals sire’s neighs filly |

1. … can stand up almost immediately after birth.

2. A ... gives to a foal its personality and behavior.

3. A foal usually inherits the … looks.

4. ... are good mounts for children.

5. Tigers, lions and wolves are ... but horses and cows are not.

6. The heard is headed by a ... .

7. At the age of 4 a … will become a mare.

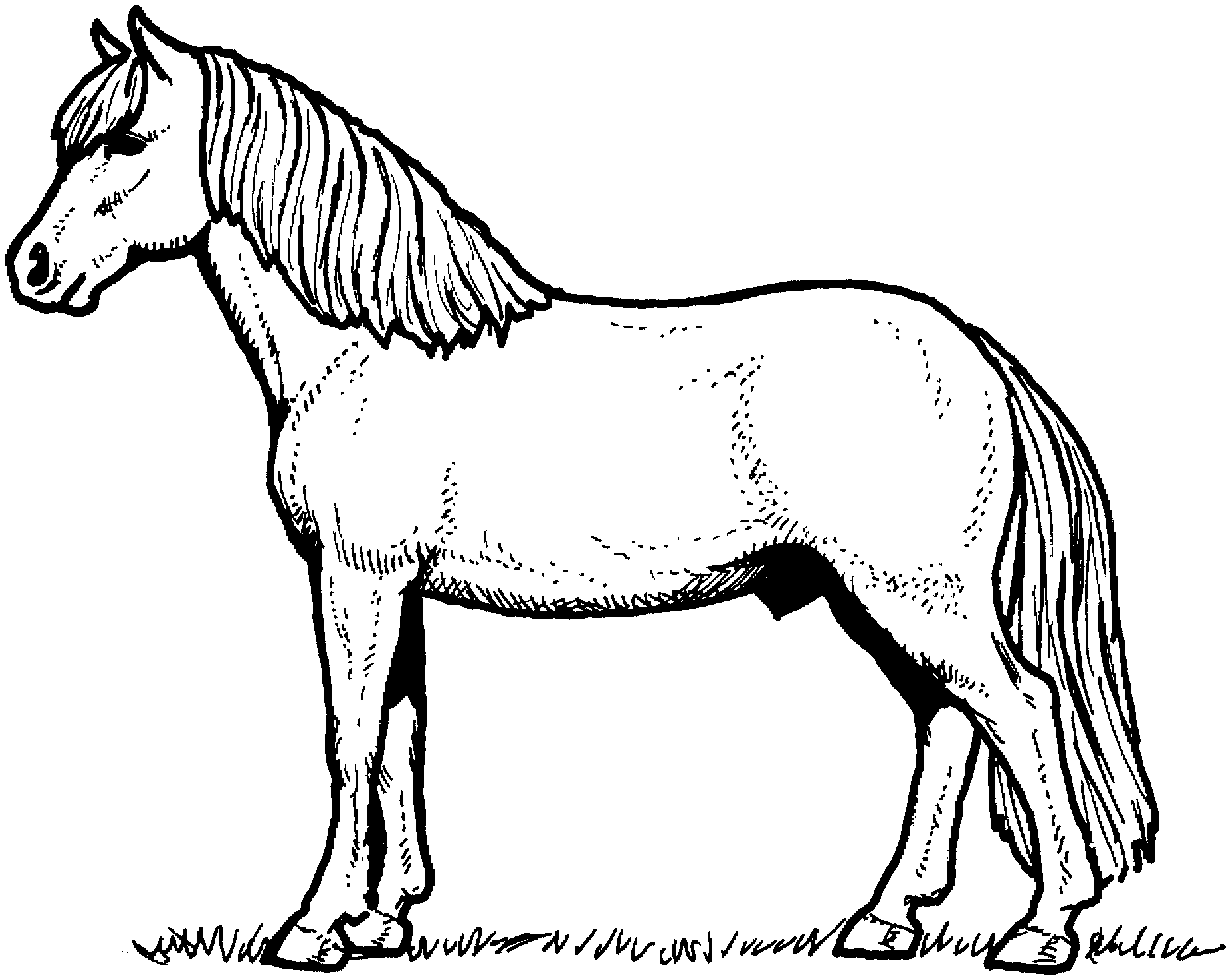
8. A horse ... to greet its master.

9. A wild horse is difficult ... .

10. Horses are kept for … .

**2.7. Read the text and do the tasks that follow.**

**Text A: Horses**

Early man hunted horses for food and it was not until 5000 B.C. that the Eurasian wild horse, the ancestor of all domestic horses, was tamed by the **nomads1** of the steppes. At first the horse was only used to draw loads, because of its natural tendency to buck predators or riders from its back. Over the centuries, horses were increasingly broken for riding, but it was only when the Chinese invented the stirrup in the 5th century A.D. that, cavalry became a popular means of warfare. Alongside their historic role as war machines, horses have always been valued companions and workers.

***Horses’ Personalities and Behaviour***

Like humans individual horses can be lazy, **generous2**, aggressive, nerv­ous, **easygoing3**, **curious4**, **obedient5** or **stubborn6**. Horses are very intelligent. They are basically good-natured animals, especially if they trust their handlers. But a horse that has been **cruelly treated7** will react to the person who **abused8** it with fright for a long time.

A frightened horse will often kick or bite, but its usual reaction to extreme danger is to bolt.

Horses communicate by whinnying or neighing. The whinny is a short, low, sad sound that signals distress. The neigh is a loud, drawn-out sound that signals a variety of feelings: well-being and **contentment9**, anger and fear.

Most horses are friendly and sociable towards other animals. They sometimes have a stable companion such as a dog, a cat, or even a kid goat. Horses rub noses with each other as a sign of friendship.

***Highlights of the History of Horses***

During the Ice Age, herds of horses **roamed10** every continent except Antarctica. But sometime during this era horses mysteriously **vanished11** from North America. One theory explaining their disappearance is that the horses migrated north and west to Siberia across a land bridge.

The people who lived in central Asia around 1000 В.C. were the first to tame and ride horses.

About 400 B.C., the ancient Greeks developed basic rules for horsemanship (riding and handling horses). These rules are still in use today.

Horses were bred for size and **stamina12** during the Middle Ages. They carried **knights13** and heavy equipment into battle and wore **armor14**, like their riders.

In A.D. 1519, horses reappeared in North America. They were brought to Mexico by the invading Spanish conquistadors.

Native Americans used horses for hunting and fighting. Horses played an important part in the colonizing and settling of America from the 1600s well into the 1800s. They were used for transportation, for clearing land and as mounts for Pony Express riders who carried the mail between Missouri and California.

Today horses are kept for riding, hunting, competitive sports like racing, polo, as performers, in circuses, rodeos, and movies, and for farm work.

***Horse Facts***

There are about 75 million horses in the world.

A horse’s height is measured in hands. One hand equals about four inches.

Horses come in three basic sizes:

Heavy draft – used for load hauling and farm work.

Light – used for riding, jumping, and showing.

Pony – any small horse that is under 14.2 hands (58 inches) high. Some ponies are known for their hardiness and often serve as children’s mounts and pets.

Horses in the wild run in herds. The herd is headed by a stallion (mature male) and includes mares (mature females), foals, colts, and fillies.

Foals – baby horses – are born with their eyes open. They can stand up almost immediately after birth and are able to run around within a few hours. A foal usually inherits its father’s (sire’s) looks, but its mother’s (dam’s) personality and constitution.

The average lifespan of a horse is 20 years, but some horses live for 50 or even 40 years.

Horses have a keen sense of smell, hearing, and direction.

Horses are vegetarians. They eat mainly grass and in winter hay. Horses also enjoy oats, bran, carrots, and barley.

***Notes to the text:***

***1 – кочевники***

***2 – добрый***

***3 – добродушный***

***4 – любопытный***

***5 – послушный***

***6 – упрямый***

***7 – жестоко обращались***

***8 – плохо обращался***

***9 – удовлетворение***

***10 – бродили***

***11 – исчезли***

***12 – выносливость***

***13 – рыцари***

***14 – доспехи***

**2.8. Answer the following questions.**

1. When and by whom was the Eurasian wild horse tamed?

2. What prevented people from riding the horse at first?

3. What kind of animals are horses?

4. Can horses communicate? How?

5. How do horses express friendship?

6. There are three basic sizes of horses. What are they?

7. How do horses run in the wild?

8. Why are horses called vegetarians?

9. What is the historic role of horses?

10. How are horses used nowadays?

**2.9. Say whether the following statements are true or false. Correct the false ones.**

1. Horses were never used for food.

2. The stirrup was invented by the Chinese.

5. Like people, horses can have their own temper.

6. The whinny usually expresses positive emotions.

7. Horses do not like other animals.

8. During the Ice Age horses inhabited Antarctica.

9. The rules for horsemanship developed by the ancient Greeks are still in use nowadays.

10. During the colonizing of America horses were used mainly for hunting.

11. There are 75 million horses in the world.

12. A horse’s height is measured in hands.

13. Ponies are kept to take part in rodeos.

**2.10. Find in the text the English equivalents of the following words and phrases.**

Таскать тяжести, приучить к узде, поведение, любопытный, ленивый, нервный, агрессивный, добродушный, послушный, упрямый, общительный, искусство верховой езды, жеребец, кобыла, жеребенок, наследовать, матка, производитель, молодая кобыла, молодой жеребец, рост.

2.11. Complete the sentences using the words from the box.

|  |
| --- |
| to buck good-natured bite  partners the stirrup to bolt kick |

1. The horse’s natural tendency ... predators off its back made it difficult to ride it.

2. ... was invented by the Chinese in the 5th century.

3. In the history of humanity horses have always been not only servants but ... as well.

4. If horses trust their handlers they are mostly ... animals.

5. A frightened horse will often ... or … .

6. A horse’s usual reaction to extreme danger is ... .

**2.12. Fill in the chart about horses.**

|  |  |
| --- | --- |
| Kinds of horses according to their sex and age | Stallion, ... |
| Basic sizes |  |
| Height |  |
| Average lifespan |  |
| Food | Carrots, ... |
| Traits of character | Easy-going, … |
| People working with horses | Rider, ... |

**2.13. From the list of verbs choose the ones referring to:**

**a) horses’ activities and behavior;**

**b) human treatment of horses.**

To bolt, to bite, to treat cruelly, to ride, to neigh, to breed, to draw loads, to handle, to abuse, to whinny, to buck predators off its back, to break, to develop basic rules for horsemanship, to kick, to use horses for hunting, to rub noses with each other, to roam.

**2.14. Translate the sentences into English.**

1. Евразийская дикая лошадь была предком всех домашних лошадей.

2. Подобно людям лошади могут быть ленивыми, любопытными, упрямыми или послушными.

3. Лошади долго помнят плохое обращение.

4. Лошади известны своей общительностью и дружелюбием по отношению к другим животным.

5. В средние века ценились крупные и выносливые лошади.

6. Исчезновение лошадей из Северной Америки во время ледникового периода может быть объяснено их миграцией в Сибирь по сухопутному перешейку.

7. Лошади помогали колонизировать и заселять Америку

8. Дикие лошади живут стадами.

9. Жеребенок, как правило, наследует конституцию и характер матки, а внешность – производителя.

10. Хотя средняя продолжительность жизни лошади 20 лет, некоторые лошади живут 40 лет.

**2.15.** Tell about:

1) the historic role of horses;

2) the role of horses nowadays;

3) horses’ character and behavior.

**2.16. Describe the biological characteristics of horses.**

**2.17. What do you think of horses? Answer these questions.**

1. Do you like horses?

2. Would you like to have a horse of your own? What kind?

3. Do you think peasants can’t do without horses?

4. What work do horses do in the village?

5. Is it easy to keep a horse? What conditions are necessary for it?

6. What do you think about horse racing?

7. Have you ever bet on horses?

8. What are horses bread for in our Republic?

**2.18. Match the English proverbs with their Russian equivalents. Try to remember a situation from your personal or somebody** **else’s experience which can be described by any of these proverbs.**

|  |  |
| --- | --- |
| 1. A horse stumbles that has four legs. | А. Через силу и конь не скачет. |
| 2. All lay loads on a willing horse.  3. You may take a horse to the water, | В. Каждой лошади своя поклажа самой тяжелой кажется. |
| but you cannot make him drink.  4. Never spur a willing horse. | С. Хорошего коня не следует погонять. |
| 5. Every horse thinks its own pack heaviest. | D. Конь о четырех ногах, да и то спотыкается. |
| 6. Don’t look a gift horse in the mouth. | Е. Дареному коню в зубы не смотрят. |
|  | F. Кто везет, того и погоняют. |

2.19. **Learn the words before reading text B.**

quality [ˈkwɒlɪti] – качество

shelter – укрытие, убежище

access [ˈækses] – доступ

sandy [ˈsændi] – песчаный

surface [ˈsəːfɪs] – поверхность

dust [dʌst] – пыль

mould [məʊld] – плесень

respiratory [rɪˈspɪrət(ə)ri] – дыхательный, респираторный

ailment [ˈeɪlm(ə)nt] – болезнь, заболевание

environment [ɪnˈvaɪrənm(ə)nt] – среда

prone to [prəʊn] – подверженный, склонный

exposure [ɪkˈspəʊʒə] – воздействие

harmful – вредный

barn – конюшня; сарай

insulation [ɪnsjʊˈleɪʃ(ə)n] – изоляция

damp – сырой, влажный

conditions [kənˈdɪʃənz] – условия

bedding – подстилка (*для скота*)

airways [ˈeəweɪz] – дыхательные пути

mucus [ˈmjuːkəs] – слизь

stall [stɔːl] – конюшня

drainage [ˈdreɪnɪdʒ] – сток

urine [ˈjʊərɪn] – моча

to soak up – впитывать

hay – сено

staple [ˈsteɪp(ə)l] – основной

fibre [ˈfaɪbə] – клетчатка

gut [ɡʌt] – пищеварительный тракт

fungus [ˈfʌŋɡəs] – грибок, *мн.* – fungi [ˈfʌŋɡiː]

lungs [lʌŋz] – легкие

2.20. Look at the title of text B and its subtitles. Judging by this information and the words from ex. 2.19., what medical problem does it discuss? What is this problem caused by?

2.21. Put each word in the correct blank.

1) *access* / *shelter*

Horses need \_\_\_\_\_\_ from the wind and \_\_\_\_\_\_ to water and food.

2) *surfaces* / *dusts*

Sandy \_\_\_\_\_\_ can introduce many \_\_\_\_\_\_ .

3) *lungs* / *mucus*

Ammonia can increase \_\_\_\_\_\_ production in horses’ \_\_\_\_\_\_ .

3) *urine* / *bedding*

You should provide adequate \_\_\_\_\_\_ to soak up \_\_\_\_\_\_ .

4) *hay* / *fibre*

\_\_\_\_\_\_ is a source of \_\_\_\_\_\_.

5) *eyes* / *spores*

Mould \_\_\_\_\_\_ are often undetectable to human \_\_\_\_\_\_ .

6) *condensation* / *barn*

A cold and wet \_\_\_\_\_\_ may have \_\_\_\_\_\_ problems.

**1.22. Look through the text and find the words having the same meaning as:**

|  |  |
| --- | --- |
| • disease *(paragraph 2)* | • moist *(paragraph 4)* |
| • conditions *(paragraph 2)* | • respiratory tract *(paragraph 5)* |
| • aeration *(paragraph 3)* | • to absorb *(paragraph 6)* |
| • isolation *(paragraph 4)* | • digestive tract *(paragraph 7)* |

**2.23. Read the text and do the tasks that follow.**

Text B: Air Quality in the Horse Barn

1Horses are naturally designed to live outside. With shelter from the wind and access to fresh water and good quality food, most horses can live quite comfortably without a stable. This is not always a convenient option for domestic horses.

2The domestic horse is frequently stabled and ridden on sandy surfaces, which can introduce many dusts and moulds that increase the chances of respiratory ailments. A horse in a dusty environment is more prone to infection than a horse in a cleaner environment.

*What can you do to improve air quality and reduce dust in your stable?*

*Ventilation*

3Fresh air without drafts1 will go a long way to minimizing a horse’s exposure to harmful environmental irritants2. A combination of inlets3 and outlets4 help to provide ventilation, especially once barn windows and doors are closed up to provide warmth in the winter. Mechanical ventilation is another consideration.

*Insulation*

4Minimizes temperature fluctuations5 caused by warm days and cold nights. Proper insulation not only keeps the barn warm in the winter, but when combined with good ventilation, a barn will avoid condensation problems which can be in cold and damp conditions.

*Bedding*

5Choose high-quality, absorbent bedding with low dust levels. If you can smell ammonia – your horse’s airways are at risk. Ammonia can increase mucus production. Daily, proper cleaning of stalls is of course a must. It is recommended to turn horses out prior to cleaning the stable as bedding is the second most common source of dust in the barn.

*Drainage*

6Floors that allow urine to be absorbed and travel down through the flooring material layers can suffer from odour retention6. Non-porous floors depend on slope7 for drainage and adequate bedding to soak up urine.

*Feed*

7Hay is the staple of the horse’s diet providing fibre, which is essential for healthy gut function but is also the single most common source of dust and mould for horses. Even good quality hay will contain some dust. Sprinkling8 hay with water can reduce the dust by half. Feeding from the ground and not throwing hay over the top of stall door will also reduce airborne dust. All hay will have some mould present as there are many types of fungi in field crops. Hay that has been baled9 damp is the biggest concern as doing so provides an environment of moisture and heat for mould to thrive and multiply. Mould spores are very small and often undetectable to the human eye, but can travel deep into the lungs of a horse. Avoid round bales which can become havens for dust and mould.

***Notes to the text:***

***1 – сквозняки***

***2 – раздражители***

***3 – входные отверстия***

***4 – выпускные отверстия, отдушины***

***5 – колебания***

***6 – сохранение запаха***

***7 – наклон, уклон***

***8 – опрыскивание***

***9 – упаковано в тюки, рулоны***

**2.24. Answer the questions.**

1. Is it good for domestic horses to leave outside?

2. How can you provide ventilation?

3. What is the main function of insulation?

4. Why is it recommended to turn horses out prior to cleaning the stable?

5. What are the best floors for horses?

6. Why do horses need fibre?

7. Why is it recommended to sprinkle hay with water?

8. Why should round bales be avoided?

2.25. **Say whether these statements are true or false or not mentioned in the text. Correct the false ones.**

1. A horse can inhale and exhale approximately 60 litres of air per minute.

2. Stabling horses on sandy surfaces increases the chances of respiratory ailments.

3. There are mucus-producing cells in the linings of airways.

4. Barns with closed windows and doors need ventilation.

5. Moulds often cause respiratory ailments.

6. Stalls must be cleaned every other day.

7. Floors that allow urine to be absorbed can suffer from odor retention.

8. Hay is the most common source of dust and mould for horses.

9. Good quality hay doesn’t contain any dust.

10. Throwing hay over the top of stall door reduces airborne dust.

**2.26. Replace the Russian words in brackets with their English equivalents. Refer to the text if necessary.**

1. A horse in a dusty environment (больше подвержена инфекции) than a horse in a cleaner environment.

2. Fresh air helps to minimize (воздействие на лошадь вредных раздражителей внешней среды).

3. (В холодных и сырых условиях) a barn is likely to have condensation problems.

4. You should choose (качественную подстилку с абсорбирующими свойствами и низким содержанием пыли).

5. All hay will have some mould present (так как в полевых культурах присутствуют разные типы плесневых грибов).

6. (Во влажной и теплой среде) mould will thrive and multiply.

**2.27. What new facts have you learnt from the text? Enumerate them.**

**2.28. Give recommendations on how to feed horses to reduce** the chances of respiratory ailments.

**UNIT 3**

What do you know about goats?

**3.1. Learn the following words before reading text A.**

goat [ɡəʊt] – коза

lush [lʌʃ] – сочный

pasture [ˈpɑːstʃə] – пастбище

to nibble – щипать (траву)

thistle [ˈθɪs(ə)l] – чертополох

to chomp – жевать

flavour [ˈfleɪvə] – вкус

protein [ˈprəʊtiːn] – белок

nanny goat – *разг.* коза

billy goat – *разг.* козел

beard [bɪəd] – борода (у животного)

chin – подбородок

breed – порода

Toggenburg [ˈtɒɡənˌbəːɡ] – тоггенбург (порода коз молочного направления)

Saanen [ˈsɑːnən] – зааненская порода короткошерстных коз молочного направления

Nubian [ˈnjuːbɪən] – нубийская порода коз молочного направления

Anglo-Nubian [ˌanɡləʊ ˈnjuːbɪən] – англо-нубийская порода коз молочного направления

to survive – выжить

to descend [dɪˈsend] from – происходить от

dung [dʌŋ] – помет, навоз

bone – кость

sinew [ˈsɪnjuː] – сухожилие

hide – шкура

leather [ˈleðə] – кожа

wool – шерсть

offspring – потомство; приплод

gestation [dʒeˈsteɪʃ(ə)n] – беременность

kid – козленок

to wean [wiːn] – отлучать (от матки), отнимать

adult [ˈædʌlt] – взрослый

to butt [bʌt] – бодаться

gate – ворота

fence – забор, изгородь

**3.2. Practice the pronunciation of the following words.**

Thorny [ˈθɔːni], yogurt [ˈjɒɡət], Switzerland [ˈswɪtsələnd], Persia [ˈpəːʃə], Asia [ˈeɪʒə], to chew [tʃuː], primarily [ˈpraɪm(ə)rɪli], desert [ˈdezət], weight [weɪt], azalea [əˈzeɪlɪə], leash [liːʃ], collagen [ˈkɒlədʒ(ə)n].

3.3. Put each of the words from the box in columns under the topic headings: **a) dairy products; b) body parts and structures; d) goats’ food.**

|  |
| --- |
| hide yogurt bone grass thistles beard  sinew cheese horns milk bushes wool |

**3.4. Match the synonyms.**

|  |  |
| --- | --- |
| 1. pasture | a. skin |
| 2. to nibble | b. to chew |
| 3. flavour | c. wool |
| 4. to chomp | d. grazing land |
| 5. breed | e. taste |
| 6. hair | f. strain |
| 7. hide | g. to bite |

**3.5. Match the words to make up word combinations. Consult text A in case of difficulties.**

|  |  |
| --- | --- |
| lush | ears |
| rich | behaviour |
| thorny | coat |
| floppy | animals |
| dappled | pasture |
| work | cheese |
| milk | bushes |
| dog-like | producers |

**3.6. Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. to butt | a. to continue to live |
| 2. nanny goat  3. billy goat | b. one of the structures that make up the skeleton in many animals |
| 4. hide  5. to descend | c. to make a [young](https://dictionary.cambridge.org/dictionary/english/young) [animal](https://dictionary.cambridge.org/dictionary/english/animal) [stop](https://dictionary.cambridge.org/dictionary/english/stop) [feeding](https://dictionary.cambridge.org/dictionary/english/feeding) on [its](https://dictionary.cambridge.org/dictionary/english/its) mother’s [milk](https://dictionary.cambridge.org/dictionary/english/milk) and to [start](https://dictionary.cambridge.org/dictionary/english/start) [eating](https://dictionary.cambridge.org/dictionary/english/eat) other [food](https://dictionary.cambridge.org/dictionary/english/food) |
| 6. to survive | d. to hit the head against something |
| 7. bone | e. a male goat |
| 8. sinew | f. white inelastic tissue that attaches a muscle to a bone |
| 9. to wean | g. an animal’s skin |
|  | h. to have the origin |
|  | i. a female goat |

**3.7. Fill in the gaps with the words from ex. 3.6. You may have to make small changes in these words.**

1. Horses’, cows’ and elephants’ ... are used for making leather.

2. The dog was chewing on a ... .

3. Robinson Crusoe managed ... on a desert island.

4. Collagen is the main protein of …, bone and skin.

5. The goat lowered its head and ... at the hedge.

6. ... are good milk producers.

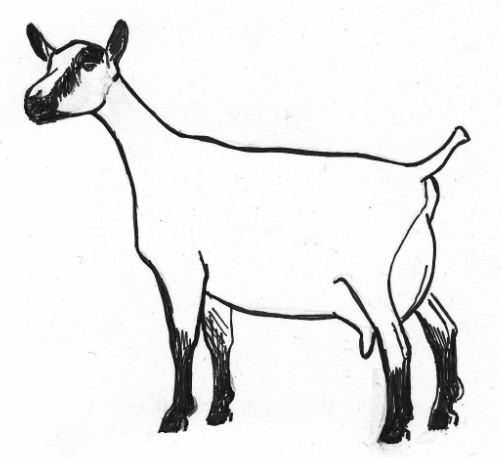
7. The farmer has decided ... all of the calves from their mothers and sell them in two weeks.

8. ... have a beard under the chin.

9. The Anglo-Nubian goat ... from the Nubian goat.

**3.8. Read the text and do the tasks that follow.**

Text A: Goats

Goats don’t need lush pasture; they’ll nibble almost anything, including thorny bushes and thistles. If you stand too close to a goat you may even find that it starts chomping at your clothes!

Female goats – called nanny goats – are good milk producers. Some people prefer the flavour of goats’ milk which can be made into rich cheese and yogurt. One cup of goat milk is high in protein and calcium.

The male billy goats have a distinctive beard under the chin.

Two of the best-known breeds of goat – the Toggenburg and Saanen – come from Switzerland.

Many goats are able to survive in dry, hot countries, eating whatever plants they can find. The Nubian goat lives in the deserts of Africa. In the 19th century, it was brought to Britain for breeding. The result was this cute-looking Anglo-Nubian goat, with its long **floppy1** ears and a **dappled2** coat in shades of brown and grey. Today the Anglo-Nubian is the popular goat in the USA.

***Highlights of the History of Goats***

Most domestic goat breeds probably descended from a wild goat that lived in Persia (now Iran).

Goats were first domesticated about 9,000 years ago; probably in Southwestern Asia. [Neolithic](https://en.wikipedia.org/wiki/Neolithic) farmers began to herd wild goats primarily for easy access to [milk](https://en.wikipedia.org/wiki/Milk) and meat, as well as to their dung, which was used as fuel, and their bones, hair and sinew for clothing, building and tools.

Through the centuries, goats have been bred for food (milk, cheese, meat) and for their hair (wool) and hide from which leather is made. They are used as work animals in some countries such as India.

Historically, goat hide has been used for water and [wine](https://en.wikipedia.org/wiki/Wine) bottles in both traveling and transporting wine for sale. It has also been used to produce [**parchment**](https://en.wikipedia.org/wiki/Parchment)**3**.

***Goat Facts***

There are more than 400 million goats worldwide. The United States has about 3 million goats.

Goats are ruminant mammals. They are closely related to cows and antelopes.

The lifespan of a goat ranges from 8 to 18 years. Female goats give birth to one or two offspring in the spring after a gestation period of 150 to 180 days. Baby goats are called kids.

Within minutes of being born, kids are up and walking around. At three to four months the kids are weaned, and at 30 months they are ready to have kids of their own.

Depending on the breed, adult female goats can weigh between 22 to 300 pounds and adult males can have between 27 to 350 pounds of body weight.

Goats have a well-developed sense of taste. They are attracted by salty- tasting things, such as paper, and they like to lick the salt off people’s hands. They are known for **rooting out4** almost anything containing minerals and chewing on it. Azalea bushes are poisonous to goats.

Butting (hitting the head against something) is a goat’s way of greeting other goats. They also butt at trees, gates, or fences for fun, and they will butt at people or things to show anger.

Domestic goats are intelligent and dog-like in their behaviour. They can be trained to a **leash5** and like to follow the owners around.

***Notes to the text:***

***1 – висячие***

***2 – пятнистый***

***3 – пергамент***

***4 – выкапывают с корнем***

***5 – поводок***

**3.9. Answer the following questions.**

1. What helps goats to survive in severe conditions?

2. How do people use goats’ milk?

3. When was the Nubian goat brought to Britain for breeding?

4. Where did the ancestor of most domestic goats live?

5. Why do goats like to chew paper?

6. Why do goats butt at each other?

7. Are domestic goats clever animals?

8. What animals do goats resemble in their behavior?

9. What animals are they related to?

**3.10. Say whether the following statements are true or false. Correct the false ones.**

1. Goats can’t live without lush pastures.

2. Female goats are called nanny goats.

3. The Anglo-Nubian goat is unpopular in the USA.

4. Goats were domesticated some 9,000 years ago.

5. In some countries, goats are used as work animals.

6. There are over 400 million goats in the world.

7. Goats can live to 18 years.

8. Azalea bushes are common food for goats.

9. Goats butt at trees and gates to show anger.

10. Domestic goats can be trained to leash and follow their owners.

**3.11. Find in the text the English equivalents of the following words and phrases.**

Сочное пастбище, быть способным выжить, шкура, происходить от,

шерсть, кожа, борода, хорошо развитое чувство вкуса, выкапывать с корнем, бодаться, привязь, забор, коза, козел, козленок, помет, потомство, беременность, отлучать.

**3.12. Join the halves of the sentences.**

|  |  |
| --- | --- |
| 1. Goats’ ability to nibble almost anything | a. are typical of some goats.  b. because they give food, wool |
| 2. The Anglo-Nubian goat, appeared as a result of breeding, | and leather.  c. makes possible their survival in |
| 3. Most domestic goat breeds  4. Through the centuries, goats have | dry, hot countries.  d. are two of the best-known |
| been important for man  5. Horns and a pointed beard | breeds of goat.  e. had long floppy ears and a |
| 6. Being attracted by salty-tasting things, goats  7. The Toggenburg and Saanen | dappled coat of brown and grey shades.  f. descended from a wild goat that |
|  | lived on the territory of modern Iran. |
|  | g. root out and chew almost anything containing minerals. |

**3.13. Pick out from the text the verbs describing goats’ behavior.**

**3.14. Choose the correct word.**

1. A lot of people prefer the (smell, flavor, color) of goats’ milk.

2. Goat milk is (tall, high, low) in protein and calcium.

3. Goats are ruminant (predators, producers, mammals).

4. The Nubian goat is the (ancestor, descendant, offspring) of the Anglo-Nubian goat.

5. A goat’s lifespan (weighs, derives, ranges) from 8 to 18 years.

6. At three to four months the kids are (killed, weaned, cleaned).

7. In case of goats, the (gestation, greeting, feeding) period lasts for about 150-180 days.

**3.15. Fill in the chart about goats.**

|  |  |  |  |
| --- | --- | --- | --- |
| Goat  breeds | Average  lifespan | Average  weight | Products  from goats |
|  |  |  |  |

**3.16. Translate the sentences into English.**

1. Козы дают хорошее молоко.

2. Вкус козьего молока нравится многим людям.

3. Козы способны выжить даже в пустыне, так как не нуждаются в сочных пастбищах.

4. В XIX веке нубийскую козу привезли в Великобританию для разведения.

5. В Индии коз используют в качестве рабочих животных.

6. Коз разводят ради мяса, молока, сыра, кожи и шерсти.

7. Известно, что козам нравятся соленые на вкус вещи.

8. Бодание является у коз способом приветствия.

9. Домашние козы похожи своим поведением на собак и очень умны.

3.17. What interesting facts about goats have you learned from the text?

3.18. **Can you remember any situations that can be illustrated by these** proverbs?

|  |  |
| --- | --- |
| 1. Trumpet in a herd of elephants; crow in the company of cocks; bleat in a flock of goats. | A. [Лучше синица в руках, чем журавль в небе](https://www.google.ru/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwiSxtSH3vPZAhVIhSwKHfeCBx8QFggxMAI&url=https%3A%2F%2Fru.wiktionary.org%2Fwiki%2F%25D0%25BB%25D1%2583%25D1%2587%25D1%2588%25D0%25B5_%25D1%2581%25D0%25B8%25D0%25BD%25D0%25B8%25D1%2586%25D0%25B0_%25D0%25B2_%25D1%2580%25D1%2583%25D0%25BA%25D0%25B0%25D1%2585%2C_%25D1%2587%25D0%25B5%25D0%25BC_%25D0%25B6%25D1%2583%25D1%2580%25D0%25B0%25D0%25B2%25D0%25BB%25D1%258C_%25D0%25B2_%25D0%25BD%25D0%25B5%25D0%25B1%25D0%25B5&usg=AOvVaw0g7gLJylCWAtIHYEIjDUxo).  B. Тонул – топор сулил, а как |
| 2. The goat which has many owners will be left to die in the sun. | [вытащили – и топорища жаль.](http://www.google.ru/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiO5-_A3fPZAhWIlSwKHbhOBQkQFggoMAA&url=http%3A%2F%2Fslovarick.ru%2F1024%2F&usg=AOvVaw1Rz5kc4fYsI0uFSzb3xbmL) C. На воре и шапка горит. |
| 3. Better a goat that can give milk than a cow that cannot. | D. С волками жить – по-волчьи выть. |
| 4. A man accused of stealing a goat should not entertain his visitors with goat meat. | E. У семи нянек дитя без глаза. |
| 5. When you are sick you promise a goat, but when you are well again make do with a chicken. |  |

**3.19. Learn the words before reading text B.**

nutritionist [njʊˈtrɪʃ(ə)nɪst] – специалист по кормлению

feed additive – кормовая добавка

to cause [kɔːz] – вызывать

shift – изменение

nutrient [ˈnjuːtrɪənt] – питательный элемент

to determine [dɪˈtəːmɪn] – определять, решать

response [rɪˈspɒns] – реакция

to anticipate [ænˈtɪsɪpeɪt] – ожидать, предвидеть

available [əˈveɪləb(ə)l] – доступный; имеющийся в наличии, в распоряжении

performance [pəˈfɔːm(ə)ns] – продуктивность

peak milk – максимум лактации

milk persistency [pəˈsɪstənsɪ] – продолжительность лактации

milk records – учёт надоев молока, учёт молочной продуктивности

milk curve [kəːv] – лактационная кривая

growth chart – график прироста

body condition graph [ɡrɑːf] – диаграмма состояния тела

reproductive summary – репродуктивные показатели

to supply [səˈplaɪ] – снабжать, поставлять

average [ˈæv(ə)rɪdʒ] – средний

volatile fatty acid [ˈvɒlətaɪl ˌfæti ˈæsɪd] – летучая жирная кислота

loss – потеря

essential [ɪˈsenʃ(ə)l] – важный; необходимый

**3.20. Read the title of text B. Judging by the title and the words from ex. 2.18., which of these things do you think are mentioned in it? Look through the text and write the numbers of the paragraphs in which you found them.**

1) the definition of feed additives;

2) animals’ responses to feed additives;

3) genetically modified feed additives;

4) the list of ingredients in a feed.

**3.21. Replace the words printed *in italics* with the words from the word bank, which have the same meaning.**

|  |  |
| --- | --- |
|  | ingredient determine feed additives cause  peak milk rumen nutrients nutritionists |

1. Feeding goats in the current economic environment is not easy for *specialists in feeding farm animals*.

2. Feed additives contain *substances that animals need in order to live and grow*.

3. Some feed additives can *be the reason for* intensive growth.

4. Most sheep and goat producers will use very few *food supplements for farm animals including vitamins, amino acids, fatty acids, and minerals*.

5. To *make a decision* if you want to use a feed additive you should consider four factors.

6. Some feed additives increase *the period of highest milk yields*.

7. One of the effects is stabilized pH in the *large first part of the stomach of cows, goats, and sheep in which cellulose is broken down by the action of symbiotic microorganisms*.

8. Feed companies do not have to give you the exact weight of each *component part*.

**3.22. Look through the text again and find the words having the same meaning as:**

|  |  |
| --- | --- |
| • reaction *(paragraph 1)* | • productivity *(paragraph 4)* |
| • change *(paragraph 1)* | • important *(paragraph 5)* |
| • expected *(paragraph 3)* | • to provide *(paragraph 8)* |

**3.23. Read the text and do the tasks that follow.**

**Text B: Feed Additives for Goats and Sheep**

1Feeding sheep and goats, particularly in the current economic environment, is a **challenging task1** for producers and nutritionists. Feed additives are a group of feed ingredients that can cause a desired animal response such as rumen pH shift or growth. Several feed additives contain nutrients such as **sodium2** in sodium bicarbonate, or protein in **yeast** **culture3**. Feed additives are not a requirement or guarantee for high productivity or profitability.

2Most sheep and goat producers will use very few, if any, feed additives. However, feed additives are **heavily marketed4** and producers should be aware of what they are and which ones work and which do not. Not all feed additives used by larger ruminants such as dairy cows are **legal5** or **suitable6** to use in sheep and goats.

3Four factors should be considered to determine if you want to use a feed additive: anticipated response, economic **return7**, available research, and field responses.

4Response refers to the performance changes the user could expect or anticipate when a feed additive is included. Several examples are:

• Higher milk yield (peak milk and/or milk persistency)

• Higher average daily gain (ADG)

• Better hair/wool growth

• Increase in milk components (protein and/or fat)

• Greater dry matter intake

• Stimulation of rumen microbial synthesis of protein and/or volatile

fatty acid (VFA) production

• Increased digestion in the digestive tract

• Stabilized rumen environment and pH

• Improved growth (gain and/or feed efficiency)

• Minimized weight loss

• Reduced heat stress effects

• Improved health (such as less **ketosis8**, reduced **acidosis9**, or improved

immune response)

5Research is essential to determine if experimentally measured responses can be expected in the field. Studies should be conducted under controlled conditions similar to field situations and have statistically analyzed results (determining if the differences are repeatable).

6Results obtained on individual farms are the economic return. Producers and nutritionists must have data to compare and measure responses.

7Several tools to measure results (to evaluate responses on a farm) include milk records (peak milk, persistency, milk components, and milk curves), reproductive summaries, dry matter intake, average daily gains, growth charts, body condition graphs, and herd health profiles that will allow critical evaluation of a selected additive.

8A feed company must supply you with a complete list of ingredients in a feed if such a request is made. However, they do not have to give you the exact weight of each ingredient; what they will do is list the ingredients starting with the largest and ending with the smallest.

***Notes to the text:***

***1 – непростая задача***

***2 – натрий***

***3 – культура дрожжей***

***4 – усиленно рекламируются***

***5 – законный; легальный***

***6 – подходящий, пригодный***

***7 – прибыль***

***8 – кетоз (нарушение углеводного, белкового и жирового обменов и накопление в организме большого количества кетоновых веществ (ацетона, ацетоуксусной и бета-оксимасляной кислот)***

***9 – ацидоз (нарушение кислотно-щелочного баланса в организме, которое характеризуется избытком кислот, а также повышением концентрации водородных ионов)***

3.24. Answer the questions.

1. What do feed additives cause in animals?

2. What nutrients can feed additives contain?

3. What four factors should be considered to determine if you want to use a feed additive?

4. What does response refer to?

5. What changes in milk productivity can feed additives cause?

6. In what way do feed additives improve the digestive system of animals?

7. How do feed additives affect the growth and development of animals?

8. How do they affect their health?

9. Why is it essential to do research on feed additives?

10. What tools can be used to measure the results?

**3.25. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. Feed additives always guarantee high productivity.

2. Feed additives are heavily marketed nowadays.

3. Feed additives reduce the quality of goat milk.

4. All feed additives used by dairy cows are suitable to use in sheep and goats.

5. Studies of feed additives should be conducted under controlled conditions similar to field situations.

6. The data received on individual farms should be compared to measure responses.

7. It is necessary to determine if the differences are repeatable.

8. Milk records usually include peak milk, persistency, milk components, and milk curves.

9. A feed company must give you the exact weight of each ingredient in a feed.

10. Feed additives are not allowed in organic farming.

3.26. Put the statements in the order in which they are mentioned in the text.

1. Milk components include protein and fat.

2. Results obtained on individual farms are the economic return.

3. Producers should be aware of what feed additives are and which ones work and which do not.

4. Critical evaluation of a selected additive is based on measuring results.

5. Some feed additives used by larger ruminants are illegal to use in sheep and goats.

6. Feed companies list the ingredients starting with the largest and ending with the smallest.

7. Improved growth depends on feed efficiency.

8. Feed additives are not a requirement for high profitability.

3.27. Are you for or against using feed additives in feeding farm animals? Why? Give as many reasons as you can.

3.28. What about food additives? Do you want to buy food containing additives? Why? / Why not?

**UNIT 4**

What do you know about sheep?

**4.1. Learn the following words before reading text A.**

sheep [ʃiːp] – овца, *мн.* – sheep

hardy – выносливый

to withstand [wɪðˈstænd] – выдерживать, выносить

scarce [skeəs] – скудный, недостаточный

mutton [ˈmʌt(ə)n] – баранина

ram [ræm] – баран

ewe [ju:] – овца

lamb [læm] – ягненок

lambing [ˈlamɪŋ] – окот (*овец*), ягнение

orphan [ˈɔːf(ə)n] – сирота

to rear [rɪə] – выращивать

shearing [ˈʃɪərɪŋ] – стрижка (овец)

clippers – ножницы (для стрижки овец)

to dip – мыть в дезинфицирующем растворе

disease [dɪˈziːz] – болезнь

source [sɔːs] – источник

fat – жир

silage [ˈsaɪlɪdʒ] – силос

fodder – корм

cornstalk – стебель кукурузы

silo [ˈsaɪləʊ] – силосохранилище

straw [strɔː] – солома

legume [ˈleɡjuːm] – бобовое растение

weed [wiːd] – сорняк

herbs – разнотравье

shrubs [ʃrʌbz] – кустарник

single birth – ягненок, который родился один

twins – двойня

triplets – тройня

quadruplets [ˈkwɒdrʊpləts] – четверо ягнят, родившихся вместе

quintuplets [ˈkwɪntjʊpləts] – пятеро ягнят, родившихся вместе

4.2. Practice the pronunciation of the following words.

Mountainous [ˈmaʊntɪnəs], Northern Hemisphere [ˌnɔːð(ə)n ˈhemɪsfɪə], migration [maɪˈɡreɪʃ(ə)n], spiral [ˈspaɪr(ə)l], to curve [kəːv], to occur [əˈkəː].

**4.3. Read these groups of words and translate them into Russian paying attention to the meaning of the suffixes.**

Lamb – to lamb – lambing; to rear – rearing – reared; feed – to feed – feeding – fed; to shear – shearing – sheared; to dip – dipping – dipped.

**4.4. Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. orphan  2. ram | a. passing animals trough a bath containing a chemical that kills insects |
| 3. shearing  4. ewe | b. any of many substances, present in such foods as meat, eggs and beans that helps to build up the body |
| 5. dipping | c. unhealthy condition caused by infection |
| 6. silage  7. lamb | d. two children born of the same mother at the same time |
| 8. twins | e. cutting the wool off a sheep |
| 9. disease | f. an adult female sheep |
| 10. protein | g. a child whose parents are both dead |
|  | h. a mature male sheep |
|  | i. a young sheep |
|  | j. grass or other plants cut and stored in a silo away from air for preservation as winter food for cattle |

**4.5. Complete the sentences using the words from ex. 4.4.** You may have to make small changes in these words.

1. Mutton is food high in ... .

2. My brother and I look so alike that people often think we are ... .

3. Her parents died in a plane crash so she is an … .

4. Some … are caused by bacteria.

5. ... lambs are lighter than ... .

6. Newborn ... weigh from 4 to 18 pounds.

7. Nowadays ... is done by electric clippers.

8. ... is done to protect sheep against diseases.

9. ... has a comparatively low feeding value.

**4.6. Match the synonyms.**

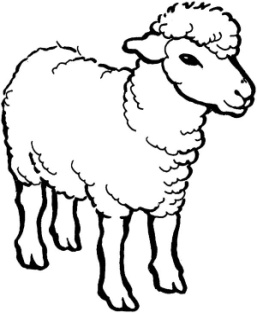
|  |  |
| --- | --- |
| 1. scarce | a. forage |
| 2. to shear | b. to bend |
| 3. disease | c. bush |
| 4. herb | d. deficient |
| 5. to handle | e. to clip |
| 6. to curve | f. illness |
| 7. shrub | g. to look after |
| 8. fodder | h. grass |

**4.7. Match the antonyms.**

|  |  |
| --- | --- |
| 1. to survive | a. female |
| 2. indoors | b. weak |
| 3. painless | c. forward |
| 4. male | d. domestic |
| 5. timid | e. abundant |
| 6. scarce | f. outdoors |
| 7. backward | g. painful |
| 8. wild | h. to die |
| 9. hardy | i. brave |

4.8. Read the text and do the tasks that follow.

**Text A: Sheep**

[](http://www.google.ru/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwitt5urw4LZAhWD6aQKHRrABnkQjRx6BAgAEAY&url=http://www.coloringsky.com/alpha-male-sheep-coloring-page/&psig=AOvVaw3SnQbpWsG1_I_FbdloT2mA&ust=1517499160725577)Sheep are hardy animals and they roam over wide areas on the farm. With their woolly coats, sheep can withstand cold weather. They can survive when food is scarce. There are over 50 (different breeds of sheep for farmers to choose from. Sheep are kept for their wool, meat (mutton) and milk.

The male sheep is called a ram, the female – a ewe. Ewes have their lambs early in the spring, often while there is still snow on the ground. At lambing time many farmers bring their sheep indoors where they can keep an eye on them all the time. If a ewe dies, her orphan lambs have to be reared by hand.

They need to be bottle-fed every four hours – day and night – for the first four or five days.

Sheep shearing takes place once a year, usually at the beginning of summer. In the past, it had to be done by hand and took a long time. Now electric clippers are used and an expert can shear 300 sheep in a day. Shearing is painless for the sheep, and afterwards they have to be dipped to protect them against diseases.

***Highlights of the History of Sheep***

The wild ancestors of domesticated sheep lived in mountainous and plain areas all across the Northern Hemisphere. Today, wild sheep are found only in mountainous areas. One theory explaining their migration from the plains is that they retreated before an increasingly dominant animal – man.

Sheep were among the first animals to be domesticated, more than 8,000 years ago, probably in Western Asia.

Sheep became an important source of energy food – high in protein and fat – for early humans. Because sheep were easy to handle and herd, primitive peoples were able to migrate from place to place with them.

There is evidence that sheep wool was used in **fabrics1** as early as 4000 B.C.

***Sheep Facts***

Like cattle and goats, sheep eat grass, hay, silage (fodder such as cornstalks, hay, or straw, kept in a silo), legumes, weeds, herbs, and shrubs.

Some rams (male sheep) and ewes (females) have horns. They grow backward and downward, then curve forward in a spiral.

A mature sheep can weigh from 60 to 400 pounds. The size of a sheep varies considerably, depending upon the breed.

The lifespan of a sheep ranges from 12 to 20 years.

Sheep’s wool is usually white, but black, brown, or red wool is not uncommon.

Newborn lambs can weigh from 4 to 18 pounds. Ram lambs are usually heavier than ewes. Most lambs are single births, but twins, triplets, and even quadruplets and quintuplets sometimes occur.

Sheep are **timid2**, nearly **defenseless3** animals, easy **prey4** for wolves and other predators. They spend their time grazing and resting, follow their leader, and prefer to flock together.

***Notes to the text:***

***1 – ткани***

***3 – робкий, пугливый***

***3 – беззащитный***

***4 – добыча***

**4.9. Answer the following questions.**

1. How many sheep breeds are there in the world?

2. When do ewes have their lambs?

3. How many lambs can a ewe have?

4. Can orphan lambs survive if their mother dies? How?

5. Why did shearing take much time in the past? Why is it not a long process nowadays?

6. Why do sheep have to be dipped after shearing?

7. Where did the wild ancestors of domesticated sheep live?

8. Did sheep migrate with primitive peoples?

9. Why do sheep eat the same food as cattle and goats?

**4.10. Say whether the following statements are true or false. Correct the false ones.**

1. Woolly coats help sheep to withstand cold weather.

2. Sheep cannot survive without abundant food.

3. At lambing time farmers keep their sheep outdoors.

4. Orphan lambs have to be bottle-fed 3 times a day for the first five days.

5. An expert can shear 3000 sheep in a day.

6. Sheep were domesticated more than 8,000 years ago.

7. Sheep wool has been used in fabrics since ancient times.

8. All sheep have horns.

9. There are no great variations in the size of a sheep.

10. Sheep’s wool can be red or brown.

**4.11. Find in the text the English equivalents of the following words and phrases.**

Выносливое животное, переносить холодную погоду, недостаточно пищи, время ягнения, присматривать за кем-либо, кормить из бутылки, стрижка, делать вручную, электрические ножницы, болезнь, источник калорийной пищи, новорожденный ягненок, с высоким содержанием белка и жира, бобовое растение, сорняк, корм, разнотравье, стебель кукурузы.

**4.12. Choose the correct word.**

1. Sheep can survive when food is (absent, scarce, artificial).

2. Such timid and defenseless animals as sheep are easy prey for (vegetarians, herbivores, predators).

4. (Lambing, dipping, shearing) takes place at the beginning of summer.

Most lambs are (triplets, single births, quintuplets).

5. Shearing is (painful, painless, pleasant) for the sheep.

6. Sheep’s (extinction, migration, revival) from the plains to the mountains was caused by human expansion.

7. Primitive people migrated with their sheep as they were easy to (herd, hunt, ride).

8. A (newborn, mature, sick) sheep can weigh 400 pounds.

**4.13. Translate the sentences into English.**

1. Овцы приносят ягнят рано весной.

2. Большинство овец приносит одного ягненка, но иногда рождается двое, трое или даже пятеро.

3. Ягненка, который остался без матери, нужно кормить вручную.

4. Стрижку овец проводят один раз в год.

5. После стрижки овец нужно искупать в дезинфицирующем растворе для защиты от болезней.

6. Овцы были среди первых одомашненных животных.

7. С помощью электрических ножниц опытный специалист может остричь 300 овец в день.

8. Овцы следуют за своим вожаком и предпочитают держаться вместе.

**4.14. Fill in the chart about sheep.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Kinds of sheep according their sex and age | Average lifespan | Weight | Sheep’s  food | Products from sheep |
| Ewe, ... |  |  | Grass, … |  |

**4.15. Tell your groupmates how to keep sheep.**

**4.16. Match the English proverbs with their Russian equivalents. Which of them do you like best? Can you think of any situation that can be described by it?**

|  |  |
| --- | --- |
| 1. Every family has a black sheep.  2. If one sheep leaps over the ditch, | A. Согласного стада и волк не берет. |
| all the rest will follow.  3. Where every hand fleeces, the | B. У ленивой пряхи и про себя нет рубахи. |
| sheep go naked. | C. B семье не без урода. |
| 4. A lone sheep is in danger of the wolf. | D. Пapшивaя овца все стадо портит. |
| 5. A lazy sheep thinks its wool heavy. | E. Куда один баран, туда и все стадо. |
| 6. One scabbed sheep will mar a whole flock. | F. Где все стригут, там овны голы. |

**4.17. Learn the words before reading text B.**

skill – навык, умение

know-how – знание технологии

to achieve [əˈtʃiːv] – достигать, добиваться

grazier [ˈɡreɪzɪə] – животновод, выращивающий скот на подножном корме

to observe [əbˈzəːv] – следить, наблюдать

management [ˈmænɪdʒm(ə)nt] – содержание (*животных*)

visually [ˈvɪʒuəli] – зрительно, визуально

to assess [əˈses] – оценивать

paddock [ˈpædək] – загон

parasite [ˈpærəsaɪt] – паразит

infested [ɪnˈfestɪd] – зараженный

entire [ɪnˈtaɪə] – целый, весь

nutritious [njʊˈtrɪʃəs] – питательный

seed [siːd] – семя, семечко

leaf [liːf] – лист, *мн.* – leaves

dormant [ˈdɔːm(ə)nt] – в состоянии покоя

palatable [ˈpælətəb(ə)l] – вкусный

finished – откормленный

annual [ˈænjuəl] – однолетний

turnip [ˈtəːnɪp] – турнепс, репа

humid [ˈhjuːmɪd] – сырой, влажный

crossbreed [ˈkrɒsbriːd] – гибрид, кроссбред

appropriate [əˈprəʊpriət] – подходящий

**4.18. Read the title of text B and its subtitles. What pitfalls is it going to discuss?**

**4.19. Look through the text and find the paragraphs which mention the following things:**

1) know-how;

2) the grazier’s trained eye;

3) guardian animals;

4) visual assessment of the paddock;

5) a high-energy annual crop;

6) appropriate breeds and crossbreeds.

**4.20. Put each word in the correct blank.**

1) ***forages*** / ***grains***

Unlike \_\_\_\_\_\_ growing \_\_\_\_\_\_ are always changing.

2) ***changes*** / ***graziers***

\_\_\_\_\_\_ have to know when to make \_\_\_\_\_\_.

3) ***paddock*** / ***sheep***

You shouldn’t keep the \_\_\_\_\_\_ in the infested \_\_\_\_\_\_.

4) ***pastures*** / ***parasites***

Test your \_\_\_\_\_\_ for the presence of \_\_\_\_\_\_.

5) ***growing*** / ***annual***

\_\_\_\_\_\_ crops can help to finish lambs after the end of the \_\_\_\_\_\_ season.

6) ***dormant*** / ***frosted***

Most grasses and legumes go \_\_\_\_\_\_ after being \_\_\_\_\_\_.

**4.21. Find in the text the words having the same meaning as:**

|  |  |
| --- | --- |
| • ability *(paragraph 1)* | • fat *(paragraph 7)* |
| • to watch *(paragraph 2)* | • wet *(paragraph 8)* |
| • tasty *(paragraph 7)* | • hybrid *(paragraph 8)* |

**4.22. Read the text and do the tasks that follow.**

**Text B: The Biggest Pitfalls1 to Producing Grass-Fed Lamb**

1There is no denying that producing a grass-fed lamb requires skill and know-how. Unlike grains and stored forages that can be tested and formulated into a ration with a predictable result, green and growing forages are constantly changing.

2Therefore it is impossible to offer a **cookbook**2 for producing grass-fed lambs and expect everyone, everywhere, to achieve the same result. The grazier needs to train his or her eye to observe forages and animals so they know when to make changes.

3The biggest pitfalls that get in the way of producing grass-fed lambs are listed below.

*Predators*

4You are likely to lose a great number of lambs in your first **encounter3** with predators if you do not have a **viable4** strategy to stop them. If you are not using electric fencing and **guardian animals5** you are going to lose your sheep and will have to exit the business.

*Forage quality*

5This is **the trickiest6** aspect of grazing. Most of your management is going to depend upon visually assessing the paddock and your animals. While it would seem ideal to graze the paddock when it is at an optimal nutritional state, always doing so may cause more problems than it solves. That is because of parasites. So test your pastures and move the sheep out of the infested paddock.

6Forage quality also varies with the season. Almost the entire plant is nutritious in early spring. When plants have gone to seed, only the very top three leaves are adequate for lactating ewes and lambs. Therefore it is necessary to move the sheep after grazing only the top 30%.

*The finishing plan*

7Most grasses and legumes go dormant after being frosted a time or two. Grasses start pulling the sugars from their leaves and storing them in their roots, making the forage less palatable. As it takes seven to eight months to produce a finished lamb on grass, and the growing season in the North is only six months long, a high-energy annual crop such as turnips can help to finish lambs after the end of the growing season.

*Genetics*

8You need the right genetics for your environment. Some breeds that **excel7** in a dry country just cannot **thrive8** on forages in humid climates. Larger animals tend to require more time to finish and may not do so in the time allowed by the grazing season. Choose breeds or crossbreeds appropriate for your level of management and forage quality. The best way to decide which breeds best fit your climate is to get out and visit other sheep producers in your area to see what is working for them.

*Observation*

9The most powerful tools you have in the grass-finished lamb business are your eyes. Successful production of grass-fed lambs heavily depends on observing and making changes on the fly9. While there are plenty of potential pitfalls to grass-finishing, they can be avoided with proper attention to detail.

***Notes to the text:***

***1 – трудность, подводный камень***

***2 – справочник, руководство***

***3 – столкновение***

***4 – эффективная***

***5 – сторожевые животные***

***6 – самый сложный***

***7 – демонстрируют отличные показатели***

***8 – хорошо развиваться***

***9 – немедленно***

4.23. Answer the questions.

1. What’s the main problem with green and growing forages?

2. How does the grazier know when to make changes?

3. How can the grazier stop predators?

4. What does most of the management depend on?

5. How does forage quality vary with the season?

6. Why are dormant plants less palatable for sheep?

7. How long does it take to produce a finished lamb on grass?

8. What is the importance of genetics in producing a grass-fed lamb?

9. What does successful production of grass-fed lambs depend on?

**4.24. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. The results of grass feeding are difficult to predict.

2. Every grazier can achieve the same result following the cookbook.

3. Predators usually attack old or sick animals.

4. Infestation with parasites may reduce forage quality.

5. It is necessary to move the sheep after grazing the top 50% of mature plants.

6. Most grasses and legumes go dormant after the first frosts.

7. The length of the growing season in the North is not enough to produce a finished lamb on grass.

8. Larger animals usually require more time to finish.

9. To decide which breeds best fit your climate you need information from other sheep producers in your area.

10. The meat of grass-fed lambs is considered organic.

**4.25. Put these things in the order in which they are mentioned in the text, and then rank them in importance from 1 to 5.**

a) observation;

b) the finishing plan;

c) genetics;

d) forage quality;

e) predators.

**4.26. Is sheep breeding well developed in Belarus? Why? / Why not? What kinds of meat are traditionally consumed in our country?**

**4.27. Do you think sheep breading has good prospects in our country? Justify your opinion.**

**UNIT 5**

What do you know about pigs?

**5.1. Learn the following words before reading text A.**

pig – свинья

individual [ɪndɪˈvɪdʒʊ(ə)l] – особь

omnivore [ˈɒmnɪvɔː] – всеядное животное

to consume [kənˈsjuːm] – потреблять; съедать

research [rɪˈsəːtʃ] – исследование

to forage [ˈfɒrɪdʒ] – добывать корм, рыскать в поисках еды; кормить грубыми кормами

livestock [ˈlaɪvstɒk] – домашний скот

corn – кукуруза

soybean [ˈsɔɪbiːn] – соя

meal – мука

diet [ˈdaɪət] – рацион

to feed (fed, fed) – кормить, откармливать

pigsty [ˈpɪɡstaɪ] – свинарник

to fatten – откармливать

boar [bɔː] – кабан; боров

shoulder – плечо; лопатка

length [leŋθ] – длина

eyesight [ˈaɪsaɪt] – зрение

smell – обоняние

nostril – ноздря

snout – рыло

hog **–** свинья

swine – свинья, *мн.* – swine

sow [saʊ] – свиноматка

pregnancy [ˈpreɡnənsi] – беременность

to average [ˈæv(ə)rɪdʒ] – составлять в среднем

nest **–** гнездо

farrowing [ˈfærəʊɪŋ] **–** опорос

litter – помет, приплод

to squeal [skwiːl] – визжать, верещать

to nurse [nəːs] – кормить

piglet – поросенок

sucker [ˈsʌkə] – сосунок

shoat [ʃəʊt] – поросенок после отъема (*массой от 27 до 72 кг*)

to wallow [ˈwɒləʊ] – валяться, кататься

pork – свинина

lard – сало, свиной жир

fertilizer [ˈfəːtɪlaɪzə] – удобрение

to grunt [ɡrʌnt] – хрюкать

farmyard – двор

5.2. Practise the pronunciation of the following words.

Creature [ˈkriːtʃə], biologically [ˌbaɪəˈlɒdʒɪk(ə)li], frequently [ˈfriːkwəntli], mixture [ˈmɪkstʃə], debut [ˈdeɪbjuː], tribe [traɪb], to wander [ˈwɒndə], miniature [ˈmɪnətʃə], maturity [məˈtʃʊərəti], decibel [ˈdesɪbel], sociable [ˈsəʊʃəb(ə)l].

**5.3. Translate these expressions into Russian.**

To rear pigs, the mother pig, a full-time job, to feed piglets, stone pigsty, to provide meat, to become wild, to use for food, to range in height, adult pigs, to give birth, to roll in mud or dust.

**5.4. Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. sow | a. an uncastrated male pig |
| 2. to farrow  3. pigsty | b. an animal that eats a variety of food of both plant and animal origin |
| 4. boar | c. a long projecting nose of swine |
| 5. omnivore | d. a young pig, especially one which is newly weaned |
| 6. shoat  7. livestock | e. cattle, horses, poultry, and similar animals kept for domestic use but not as pets |
| 8. snout | f. to give birth |
|  | g. the mother pig |
|  | h. a small building for pigs |

**5.5. Match the synonyms.**

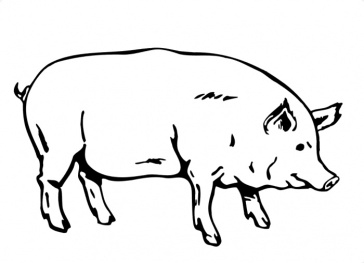
|  |  |
| --- | --- |
| 1. pregnancy | a. swine |
| 2. litter | b. to nourish |
| 3. to wallow | c. to fatten |
| 4. hog | d. ration |
| 5. to consume | e. gestation |
| 6. to nurse | f. to eat |
| 7. diet | g. offspring |
| 8. to feed | h. to roll |

**5.6. Guess the meaning** of **the following words and the phrases (1-6) and translate the sentences in which they are used.**

|  |  |
| --- | --- |
| 1. to make a pig of oneself | He made a pig of himself at the restaurant. |
| 2. pigtail | The little girl had her hair in pigtails. |
| 3. pigheaded | He never listens to anybody. He is so pigheaded. |
| 4. pigskin | I have bought a red pigskin bag. |
| 5. pig breading | Pig breeding is very important in Northern England. |
| 6. pigsty | He is so lazy. He has almost turned his house into a pigsty. |

5.7. Read the text and do the tasks that follow.

**Text A: Pigs**

With around 1 billion individuals alive, the domestic pig is among the most populous large mammals in the world.

Pigs are omnivores and can consume a wide range of food. Biologically, pigs are very similar to humans, and are frequently used for human medical research.

The first people to rear pigs were the ancient Chinese in 1100 B.C. The breeds that we know today have been around for only about 250 years old.

In the wild, pigs are foraging animals, primarily eating leaves, roots, fruits, and flowers, in addition to some insects and fish. As livestock, pigs are fed mostly corn and soybean meal with a mixture of vitamins and minerals added to the diet. In the past, country people often kept a pig which lived in a stone pigsty next to the house. It was fattened by **kitchen** **scraps1** and then killed to provide meat for the family.

***Highlights of the History of Pigs***

Wild pigs originated in Europe about 40 million years ago. They were in Africa and Asia about 25 million years ago.

Present-day domestic pigs are probably descended from two wild pig types – the European wild boar and the East Indian pig.

Pigs made their debut in the New World in the 1400s and 1500s. They were introduced by such explorers as Christopher Columbus and Hernando de Soto. Some pigs from the de Soto expedition were left with native American **tribes2**; others **wandered off3** and became wild.

Through the centuries, pigs have been used for food and the making of medicines. Their skin and hair have been used for leather goods and **bristle4** brushes.

***Pig Facts***

Pigs range in height from 12 inches (miniature pigs) to four feet at the shoulder. Their length varies from about 20 inches to 6 feet. Adult pigs can weigh from 60 to 800 pounds. The lifespan of a pig can vary from 10 to 27 years.

Pigs have poor eyesight, but a great sense of smell. The pig’s nostrils are on its leathery snout, which is very sensitive to touch. The pig uses the snout to search, or root, for food. Farmers sometimes get their pigs to help them find truffles.

Pigs are also known as hogs or swine. Male pigs of any age are called boars; female pigs are called sows.

Female pigs reach sexual maturity at 3-12 months of age. The pregnancy period averages 112-120 days. The sow builds a nest during the last 24 hours before farrowing. The mother pig usually gives birth to a litter of 8 to 12 squealing piglets, and it’s a full-time job feeding them all! Nursing occurs every 50-60 minutes. A piglet between birth and weaning is called a sucker. A weaned piglet is a shoat.

During hot, humid weather, pigs like to cool off by wallowing (rolling over and over) in mud or dust.

Pigs provide a variety of valuable products to humans, including pork, lard, leather, and fertilizer.

Pigs are very sociable animals. They grunt and squeal to communicate with one another. A pig’s squeal can be as loud as 115 decibels – that’s 3 decibels higher than the sound of a **supersonic airliner5**.

Pigs are among the smartest of all domesticated animals. And they are friendly creatures, so it is not surprising that certain breeds can be kept as farmyards pets. Not only are pigs sometimes kept as pets, they can even be trained because they are smarter than dogs!

***Notes to the text:***

***1 – кухонные отходы***

***2 – племена***

***3 – убежали***

***4 – щетина***

***5 – сверхзвуковой авиалайнер***

**5.8. Match the questions in the left column with the answers in the right column.**

|  |  |
| --- | --- |
| 1. When and where were the first domestic pigs reared? | A. Wild pigs originated in Europe about 40 million years ago. |
| 2. Where did country people often keep pigs in the past? | B. Pigs are used for food and in the making of medicines. |
| 3. When and where did wild pigs originate? | C. Pigs were firstly reared by ancient Chinese in 1100 B.C. |
| 4. What animals did domestic pigs probably descend from? | D. Christopher Columbus and Hernando de Soto. |
| 5. Who introduced pigs in the New World? | E. The mother pig is called a sow.  F. In a stone pigsty next to the |
| 6. What is the mother pig called?  7. What are pigs used for? | house.  G. From two wild pig types – the |
|  | European wild boar and the East Indian pig. |

**5.9. Fill in the chart about pigs.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height | Length | Weight | Lifespan | Average  litter size |
|  |  |  |  |  |

**5.10.** **Complete the sentences.**

1. The domestic pig is (одно из наиболее популярных крупных млекопитающих) in the world.

2. In the wild, pigs (рыщут в поисках корма).

3. (Определенные породы свиней) can be kept as farmyard pets.

4. (Взрослая свинья) can weigh from 60 to 80 pounds.

5. The lifespan of a pig (колеблется) from 10 to 27 years.

6. (Срок беременности) in swine averages 112–120 days.

7. It’s a full-time job for a sow (кормить всех своих поросят).

8. Pigs (хрюкают и визжат) to communicate with one another.

**5.11.** **Translate the following sentences into English.**

1. Свиньи – всеядные животные, они могут потреблять самую разную пищу.

2. Свиней держали в свинарнике около дома и кормили отходами с кухни.

3. На протяжении столетий свиней использовали для производства пищи.

4. У свиней плохое зрение, но прекрасное обоняние.

5. Свинья использует свое рыло для поиска пищи.

6. Самки свиней достигают половой зрелости в возрасте 3–12 месяцев.

7. Кормление происходит каждые 50–60 минут.

8. Свиньи валяются в грязи, чтобы охладиться.

9. Свиньи обеспечивают людей множеством ценных продуктов.

10. Свиньи – дружелюбные существа и считаются одними из самых умных домашних животных.

**5.12. Tell about the history of pigs.**

**5.13. Tell how to keep pigs.**

**5.14. Read the information given below and answer the question:** *How did the pig get a statue?*

In every country there are monuments to people. But in some countries there are also monuments to animals. There is even a monument to a pig. The history of the monument is strange. The people of a German town saw that a pig often dug in one and the same place. “Why?” they thought. When they dug up the soil of the place, they discovered salt under it. Salt was very dear at that time. So the people of the town got salt and the pig got a statue.

**5.15. This is a spelling game in which you must change the words by changing one letter at a time. To help you there is a definition by each word. Can you change the word food to the word pork?**

1 \_\_\_\_\_\_\_\_\_ something to eat

2 \_\_\_\_\_\_\_\_\_ not bad

3 \_\_\_\_\_\_\_\_\_ comes from trees

4 \_\_\_\_\_\_\_\_\_ made of letters

5 \_\_\_\_\_\_\_\_\_ your job

6 \_\_\_\_\_\_\_\_\_ used for eating

7 \_\_\_\_\_\_\_\_\_ meat from a pig

**5.16.** Match the English proverbs and idioms with their Russian equivalents and make up short stories to prove them.

|  |  |
| --- | --- |
| 1. To cast pearls before swine. | A. Когда рак свистнет. |
| 2. Never buy a pig in a poke. | B. Кривого веретена не выпрямишь. |
| 3. When pigs fly. | C. Метать бисер перед свиньями. |
| 4. You cannot make a silk purse out of a sow’s ear. | D. He покупай кота в мешке. |

**5.17. Learn the words before reading text B.**

wastage [ˈweɪstɪdʒ] – потери; непроизводительный расход

feeder − кормушка

position [pəˈzɪʃ(ə)n] − положение, место

ability [əˈbɪləti] – возможность, способность

to reach [riːtʃ] − дотянуться

to foul [faʊl] − пачкать, загрязнять

faeces [ˈfiːsiːz] − фекалии

drinker − поилка

to drop − ронять

to ensure [ɪnˈʃɔː] – позаботиться о том, чтобы

rodent [ˈrəʊd(ə)nt] – грызун

to adopt [əˈdɒpt] − выбирать

to affect [əˈfekt] – влиять; плохо отражаться

diarrhoea [ˌdaɪəˈriə] − понос, диарея

to result in – приводить к

raw [rɔː] – сырой; непереваренный

ground [ɡraʊnd] – измельченный, молотый

rolled [rəʊld] − плющеный

hole [həʊl] − дыра; отверстие

to repair [rɪˈpeə] – чинить, ремонтировать

slats [slæts] – планчатый пол

leakage [ˈliːkɪdʒ] – утечка; просачивание

routine [ruːˈtiːn] – режим

breeding − случка

to attempt [əˈtempt] − пытаться, стараться

oestrus [ˈiːstrəs] – течка, половая охота

feed trough [trɒf] − кормушка

overfeeding − перекармливание

**5.18. Read the title of text B. Judging by the title and the words from ex. 5.17., which of these things do you think are mentioned in it? Look through the text and write the numbers of the paragraphs in which you found them.**

1) feed prices;

2) siting the feeder;

3) positioning the drinker;

4) feeding sows in the farrowing area;

5) feeding sows in the breeding area;

6) feeding sows in the gestation area.

**5.19. Fill in the blanks with the correct words and phrases from the word bank.**

|  |  |
| --- | --- |
|  | overfeeding slats feed wastage to adopt  ability drop faeces repaired |

1. In times of high prices, it is important to minimize \_\_\_\_\_\_.

2. Feeders should be placed taking into consideration the \_\_\_\_\_\_ of the pig to reach it.

3. Feeders positioned in cold corners may become fouled with \_\_\_\_\_\_ .

4. Carrying food in their mouths, pigs often \_\_\_\_\_\_ it on the floor.

5. It is essential \_\_\_\_\_\_ a well-formulated diet for pigs.

6. Leaking feeders should be immediately \_\_\_\_\_\_ .

7. Optimised surface of the \_\_\_\_\_\_ has low absorption.

8. \_\_\_\_\_\_ in early gestation results in a waste of feed and money.

**5.20. Find in the text the words that mean the following:**

1) small mammals with large, sharp front teeth, such as mice and rats (*paragraph 4*);

2) an illness in which the guts are emptied too often and in too liquid a form (*paragraph 5*);

3) the accidental escape of liquid through a hole or crack (*paragraph 7*);

4) a regular way of doing things (*paragraph 8*);

5) containers for giving food to animals (*paragraph 8*);

6) the period of maximum sexual receptivity of the female (*paragraph 9*).

**5.21. Read the text and do the tasks that follow.**

**Text B: Management Practices to Reduce**

**Expensive Feed Wastage**

1In a time of record feed prices, it is essential that feed wastage be minimized. It is estimated that 10% of feed delivered is wasted on the average farm. On a 250 sow unit, this can be more than 150 tonnes of feed per year.

***Where is feed wasted?***

*Feeder position*

2When siting the feeder, consider the ability of the pig to reach it. Feeders placed in cold corners will often become fouled with urine and faeces as the pigs use the area as a toilet.

3Pigs like to drink shortly after feeding. If the drinkers are more than 2 metres from the feeder, pigs will walk between the feeder and drinker and carry food in their mouths. This feed will be dropped (and wasted) on the floor and bedding. Ensure that the pigs do not have to cross the sleeping area to get from the feeder to the drinker.

4Uncovered feeders contribute up to 30% of the dust in the air. The feeder is exposed to rodents and possibly birds, which can both eat the feed and **soil1** the remaining feed. All feeders should be covered.

*Feed preparation*

5It is essential to adopt a suitable diet. In times of high prices, it is tempting to simplify and cheapen the feed, but growth and health could be affected. Note if the pig’s growth slows down. Poorly formulated diets are more likely to result in diarrhoea, resulting in raw feed ingredients ending up on the floor.

6Feed which is incorrectly prepared − ground or rolled, can result in increased waste. Whole grains cannot be digested by the pig and are passed out whole and undigested − and are therefore wasted.

*Holes in the feeder*

7It is **imperative2** that all feeders are examined regularly. Any feeder with a hole should be thrown away or immediately repaired. Holes that occur over slats cost enormous amounts of money, where chronic feed leakage occurs without trace.

*Adult pig feeding*

8The feeding routines practised in the farrowing, breeding and gestation areas can result in enormous feed wastage. In the farrowing area, attempting to get the sows to eat too fast can result in loss of appetite in the lactating sow. The pig then fails to clean out the feed trough, resulting in mould development and, in the worst cases, **fly3** infestation of the feed.

9In the breeding area, when sows are in oestrus they often will not eat and this results in feed remaining in the feed troughs and being wasted.

10In gestation areas, feeding routines can be extremely careless, resulting in large amounts of feed being wasted on the floor. Combined with poor cleaning routines, this feed becomes soiled. Overfeeding of the gestating sow is extremely common on pig farms. This extra feed is wasted and does not benefit the growing piglets.

***Notes to the text:***

***1 – загрязнить, испачкать***

***2 – обязательно***

***3 – муха***

5.22. Answer the questions.

1. How much feed is wasted on the average farm?

2. What is the best distance between feeders and drinkers?

3. Why is it recommended to cover feeders?

4. What do poorly formulated diets cause?

5. What can incorrect feed preparation result in?

6. Why do holes that occur over slats cost enormous amounts of money?

7. Why is it unwise to get the lactating sow to eat fast?

8. What is the most common problem in the management of the gestating sow?

**5.23. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. On the average farm, feed consumption is 6.3 tonnes per sow per year.

2. Pigs like to use cold corners as a toilet.

3. Pigs usually want to drink shortly after feeding.

4. The feed should be distributed evenly along a feeder to minimize aggression and fighting at the feed space.

5. In times of high prices, it is wise to simplify and cheapen the feed.

6. Any feeder with a hole should be thrown away and never repaired.

7. Uncleaned feed troughs may be infested with flies.

8. Sows that are in oestrus don’t eat much.

9. Feed in the hospital pen feeders should be adjusted according to the needs of the sick pigs.

**5.24. Join the halves of the sentences. Consult the text if necessary.**

|  |  |
| --- | --- |
| 1. On a 250 sow unit, feed wastage can | a. to cross the sleeping area. |
| 2. Make sure that the pigs do not have | b. be digested by the pig. |
| 3. Simplified and cheapened feed can | c. be examined regularly. |
| 4. Whole grains cannot  5. All feeders should | d. the feed on the floor becomes soiled. |
| 6. Combined with poor cleaning routines, | e. be more than 150 tonnes of feed per year. |
|  | f. affect pigs’ growth and health. |

**5.25. Tell how to place the feeder properly.**

**5.26. Give recommendations on feeding adult pigs. Make use of the following expressions: *You should … , Ensure that … , Take care to … , You should be careful not to … , It is never a good idea to … .***

**UNIT 6**

What do you know about poultry?

**6.1. Learn the following words before reading text A.**

poultry [ˈpəʊltri] – домашняя птица

duck [dʌk] – утка

webbed [webd] – перепончатый

beak [biːk] – клюв

bill – клюв

duckling – утенок

drake [dreɪk] – селезень

egg – яйцо

to hatch – высиживать (*цыплят*); выводить (*цыплят*) искусственно

broody [ˈbruːdi] hen – наседка

artificially [ˌɑːtɪˈfɪʃ(ə)li] – искусственно

feather [ˈfeðə] – перо

down [daʊn] – пух

goose [ɡuːs] – гусь, *мн.* – geese [giːs]

wing – крыло

bird [bəːd] – птица

gander [ˈɡændə] – гусак

gosling [ˈɡɒzlɪŋ] – гусенок

to raise [reɪz] – разводить

wattle [ˈwɒt(ə)l] – бородка (*индюка*)

snood [snuːd] – серёжка (*мясистый придаток над клювом у индюка*)

domestic fowl [faʊl] – домашняя птица

the Dutch Bantam [ˌdʌtʃ ˈbæntəm] – голландская бентамка (*карликовая порода домашних кур*)

the Leghorn [leˈɡɔːn] – леггорн (*высокопродуктивная порода домашних кур яичного направления*)

the Rhode Island [ˈrəʊd ˌaɪlənd] Red – род-айлендская красная (*порода кур мясо-яичного направления*)

chick – цыплёнок

pullet [ˈpʊlɪt] – молодая курица, молодка (*самка птицы первого года яйцекладки*)

to lay eggs – откладывать яйца

hen – курица, несушка

rooster [ˈruːstə] – петух

cock – петух

yolk [jəʊk] – желток

coop [kuːp] – курятник; клетка для кур, домашней птицы

to scratch up – рыть землю, откапывать (*о курах*)

insect [ˈɪnsekt] – насекомое

worm [wəːm] – червь

to peck – клевать

pecking order – ранг в иерархии стаи

comb [kəʊm] – гребень

claw [klɔː] – коготь

toe [təʊ] – палец

shell – скорлупа

**6.2. Practise the pronunciation of the following words.**

Puddle [ˈpʌd(ə)l], guard [ɡɑːd], Michaelmas [ˈmɪk(ə)lməs], Christian [ˈkrɪstʃ(ə)n], Saint Michael [sən(t) ˈmaɪk(ə)l], variety [vəˈraɪəti], valuable [ˈvaljʊb(ə)l], primarily [ˈpraɪm(ə)rɪli], dozen [ˈdʌz(ə)n], Thailand [ˈtaɪlænd], Burma [ˈbəːmə], Sumatra [sʊˈmɑːtrə].

**6.3.** A) Which parts of speech do these words belong to? Complete the chart.

Farmer, particularly, to hatch, webbed, noisy, consumed, to rear, fiercely, intruder, domestic, eight, artificially, billion, served, feather, to peck, down, adult, popular, especially, dozen, called.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Verb | Noun | Adjective | Adverb | Numeral | Participle II |
|  |  |  |  |  |  |

B) Translate the following word combinations into Russian.

Cold water – water birds, a fat goose – goose fairs, cold winter – winter months, neighboring country – country people, a bodyguard – guard dogs.

6.4. What do we call?

|  |  |
| --- | --- |
| 1) a hen less than a year old | 6 letters |
| 2) to break out of an egg | 5 letters |
| 3) a cage for hens with small chickens | 4 letters |
| 4) a water bird larger than a duck | 5 letters |
| 5) red fleshy crest of fowl | 4 letters |
| 6) an embryo enclosed in a shell | 3 letters |
| 7) the flat part of the body that a bird uses for flying | 4 letters |

6.5. Sort out the words according to their meanings: 1) birds’ body parts and structures; 2) male birds; 3) female birds; 4) young birds.

Claw, duck, feather, duckling, down, drake, wing, cock, comb, goose, toe, snood, gander, gosling, hen, wattle, pullet, chick, rooster, beak.

6.7. Which words from groups 2-4 refer to: a) chickens; b) geese; c) ducks?

6.7. Read the text and do the tasks that follow.

**Text A: Poultry**

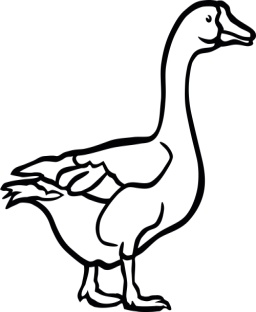
***Ducks***

Ducks are water birds. Their webbed feet help them swim and their beaks (called bills) are just the thing for **sifting1** food from **pond2** water. If there isn’t a pond handy, ducks **will make do3** with puddles and ditches for splashing their feathers.

A baby duck is called a duckling, and an adult male is a drake. Most domestic ducks neglect their eggs and ducklings, and their eggs must be hatched under a broody hen or artificially.

Ducks can be reared for their meat, eggs, and feathers (particularly their down), but many farmers keep a family of ducks just because they are fun to have around.

***Geese***

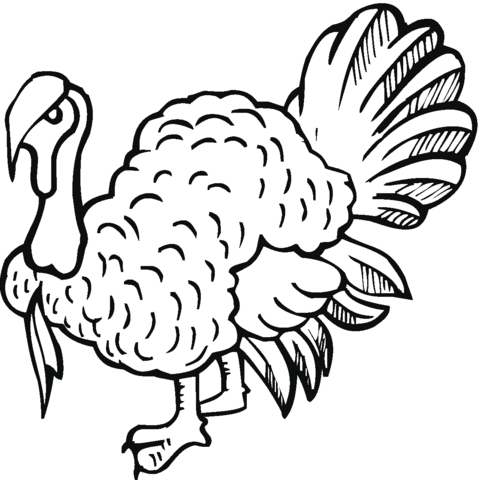
Geese are very big noisy birds. They may not look like guard dogs, but geese will **honk4** fiercely at **intruders5** and chase after them, flapping their wings and hissing!

Long ago, roast goose was served to celebrate the **Feast of Michaelmas6** (29th September, a Christian holy day in honour of Saint Michael) every September. Goose **fairs7** were held where farmers could bring their birds to the market. In the winter months, country people used to rub goose fat over their bodies to keep out the cold.

A female bird is called a goose and a male is called a gander. A young bird of this family is a gosling.

Geese are kept as a source of meat, eggs and feathers, or in some cases as house pets.

***Turkey***

[](http://www.supercoloring.com/ru/raskraski/indeyka-18?version=print)The turkey is a very popular bird, especially around the holiday season. About 45 million turkeys are consumed each **Thanksgiving day8**.

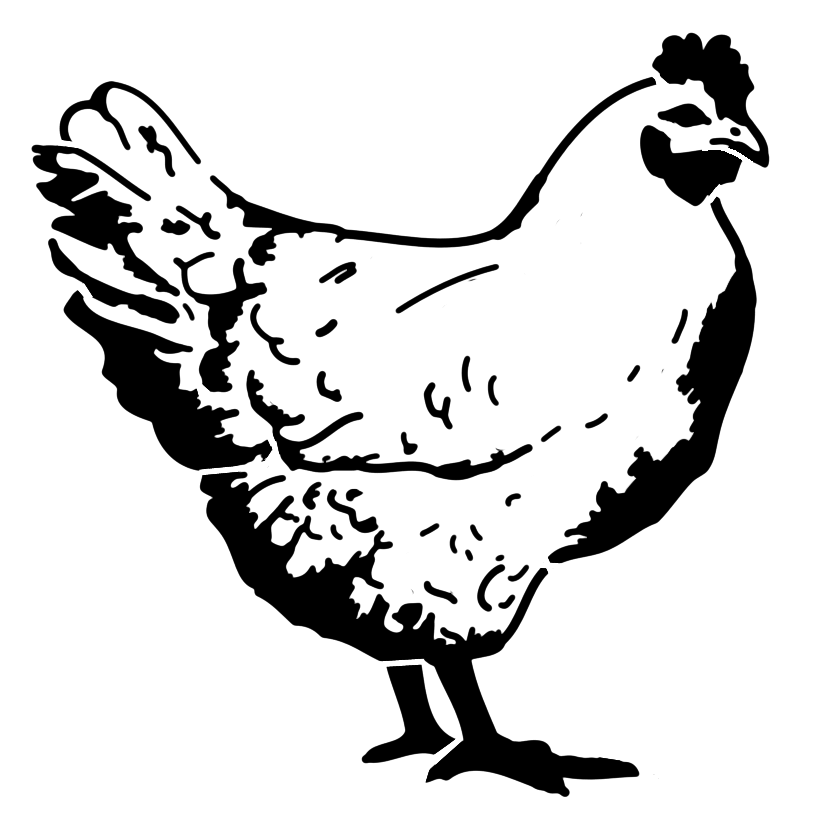
There are 8 breeds and numerous varieties of

domestic turkey that represent valuable source of

meat and eggs for humans.

Turkey can reach 3.3 to 4.1 feet in length and up to 86 pounds of weight. Males are much larger than females.

Hanging over a turkey’s beak is a long snood. The **flaps9** of red skin that hang from the chin are wattles.



*Chickens*

The chicken is the most common and widespread type of domestic fowl. With 25 billion chickens in the world, there are more of them than any other bird species. People keep chickens primarily as a source of food (consuming both their meat and eggs) and, more rarely, as pets.

There are dozens of chicken breeds, such as the Dutch Bantam, the Leghorn and the Rhode Island Red.

Baby chickens are chicks. Female chickens laying eggs are hens. Young hens less than one year old are pullets. Male chickens are called roosters or cocks.

***Highlights of the History of Chickens***

The chicken’s most direct ancestor is the wild **red jungle fowl10** of Thailand, Burma, Sumatra, and Eastern India.

Chickens were probably the first domesticated birds. They were tamed about 5,000 years ago. Bу 1400 B.C., the Chinese were raising chickens tor meat and eggs. Soon after, chickens were exported to Egypt. They were also raised in Ancient Rome and Greece.

Once chickens were domesticated, cultural contacts, trade, migration and **territorial conquest11** resulted in their introduction to different regions around the world over several thousand years.

***Chicken Facts***

Chickens can’t really fly; at best, they can flap a few feet off the ground. Chickens have a keen sense of hearing and good eyesight, but poorly developed senses of taste and smell.

It takes 21 days for a chicken egg to hatch. Chicks are nourished in the egg by the yolk. When a chick is about to hatch, it **chirps12** faintly, then **chips13** its way out of the shell with its beak. A newly hatched chick remembers its mother. It can run around a few hours after birth.

Mother hens shelter their chicks under their wings. They scratch up food, including grain, worms and insects, for their chicks to eat.

Most chickens have four-clawed toes on each foot.

Hens lay about 240 eggs a year. A pullet starts to lay eggs at about 5 months old.

Chickens that are kept in coops and allowed to mix with the other chickens have a “pecking order” – they peck each other to determine which will eat or drink first. Even the smallest chick will fight for its place in the pecking order.

Chickens are the only domestic fowl that have combs – **fleshy growths14** that stand up on the tops of their heads.

***Notes to the text:***

***1 – процеживание, фильтрация***

***2 – пруд***

***3 – обойдутся***

***4 – кричат, трубят (о гусях)***

***5 – незваный гость***

***6 – Михайлов день***

***7 – ярмарки***

***8 – День благодарения***

***9 – лоскуты***

***10 – банкивская (красная) джунглевая курица***

***11 – захват территории***

***12 – чирикает, щебечет***

***13 – отламывает (скорлупу)***

***14 – мясистые выросты***

**6.8. Answer the questions.**

1. Where do ducks look for food?

2. What are ducks raised for?

3. What are the main products derived from geese?

4. How many breeds of domestic turkey are there in the world?

5. What are turkeys kept for?

6. Why do people raise chickens?

7. What are the most common chicken breeds?

8. How long did it take chickens to spread around the world?

9. When does a pullet start to lay eggs?

10. How do chickens establish their pecking order?

**6.9. Say whether the following statements are true or false. Correct the false ones.**

1. Ducks, geese and chickens are water birds.

2. Domestic ducks tend to neglect their eggs.

3. Geese can be kept as house pets.

4. About 45 million ducks are consumed each Thanksgiving day.

5. Female turkeys are much larger than males.

6. Geese were probably the first domesticated birds.

7. The chicken is the most widespread type of domestic fowl.

8. Chickens have poorly developed senses of taste and smell.

9. Most chickens have five-clawed toes on each foot.

6.10. Insert the prepositions from the box. Consult the text if necessary.

|  |
| --- |
| After from in over (2) for (3) at under about up |

1. Ducks’ beaks (called bills) are \_\_\_\_sifting food \_\_\_\_ pond water.

2. Ducks can be reared \_\_\_\_their meat and eggs.

3. Geese may honk fiercely \_\_\_\_ intruders and chase \_\_\_\_ them.

4. Chickens were tamed \_\_\_\_ 5,000 years ago.

5. In winter country people used to rub goose fat \_\_\_\_ their bodies.

6. Turkey can reach \_\_\_\_ to 86 pounds of weight.

7. Hanging \_\_\_\_ a turkey’s beak is a long snood.

8. It takes 21 days \_\_\_\_ a chicken egg to hatch

9. Mother hens shelter their chicks \_\_\_\_ their wings.

10. Chickens are usually kept \_\_\_\_ coops.

**6.11. Complete the sentences using suitable words from the text.**

1. Ducks’ webbed feet are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

2. Some farmers keep a family of ducks just \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

3. Long ago, roast goose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to celebrate the Feast of Michaelmas.

4. The Chinese were raising chickens for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

5. Chickens can’t fly, they can only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

6. When a chick is about to hatch \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

7. A newly hatched chick \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

8. Hens scratch up food, including \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

9. Chickens in coops are allowed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

10. Chickens are the only domestic fowl that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

**6.12. Translate the sentences into English.**

1. Утки – это водоплавающие птицы. Их перепончатые лапы помогают им плавать, а клюв – процеживать пищу из прудовой воды.

2. Гуси – очень большие и шумные птицы.

3. Возможно, они не похожи на сторожевых псов, но они шипят на незваных гостей и часто преследуют их.

4. Индейка является ценным источником мяса для людей.

5. Считается, что куры были первыми домашними птицами.

6. Их одомашнили около 5000 лет назад.

7. Культурные и торговые связи способствовали распространению кур по всем регионам земного шара.

8. Куры не умеют летать. Самое большее – они взлетят на несколько футов от земли.

9. У кур острый слух и хорошее зрение, но плохо развиты чувства вкуса и запаха.

10. Куры единственные из всех домашних птиц имеют гребни.

**6.13. Tell about the history of chickens.**

**6.14. Describe the process of hatching.**

**6.15. Match these** well-known sayings about geese with their meanings. Can you remember any situation that can be illustrated by them?

|  |  |
| --- | --- |
| 1. to have a gander | a. silly person |
| 2. What’s sauce for the goose is sauce for the gander. | b. to destroy a reliable and valuable source of income |
| 3. to cook one’s goose  4. silly goose | c. a foolish and hopeless search for something that is impossible to get |
| 5. to kill the goose that lays the golden eggs  6. a wild goose chase | d. one person or situation should be treated the same way that another person or situation is treated |
|  | e. to ruin something for someone |
|  | f. to have a quick look |

**6.16. By changing one letter at a time change *bird* to *lark* and *bird* to *dove*.**

|  |  |
| --- | --- |
| *bird* | *bird* |
| \_\_\_\_ to tie or fasten | \_\_\_\_ poet |
| \_\_\_\_ people who play music together | \_\_\_\_ naked |
| \_\_\_\_ a place where money is kept | \_\_\_\_ to tire by being uninteresting |
| \_\_\_\_ the loud cry of a dog | \_\_\_\_ a part of the skeleton |
| *lark* | \_\_\_\_ finished (*participle II*) |
|  | *dove* |

**6.17. Learn the words before reading text B.**

stockmanship [ˈstɒkmənʃɪp] – правила ухода за птицей или скотом

emergence [ɪˈməːdʒ(ə)ns] – появление

technique [tekˈniːk] – метод

level [ˈlev(ə)l] – уровень

case – случай

to recognise [ˈrekəɡnaɪz] – распознавать

flock – стая; стадо

biosecurity [ˌbaɪə(ʊ)sɪˈkjʊərəti] – биобезопасность

to restrict [rɪˈstrɪkt] – ограничивать

personnel [ˌpəːsəˈnel] – персонал, рабочие фермы

equipment [ɪˈkwɪpmənt] – оборудование

site – место, участок

to comply [kəmˈplaɪ] with – подчиняться (*требованиям, правилам*)

thorough [ˈθʌrə] – тщательный

disinfection [ˌdɪsɪnˈfekʃ(ə)n] – дезинфекция, обеззараживание

carry-over – перенос

pathogen [ˈpæθədʒ(ə)n] – патоген, патогенный, болезнетворный микроорганизм

detergent [dɪˈtəːdʒ(ə)nt] – очищающее, моющее средство

to remove [rɪˈmuːv] – удалять

to treat [triːt] – обрабатывать; лечить

treatment [ˈtriːtmənt] – обработка; лечение

to eliminate [ɪˈlɪmɪneɪt] – устранять, исключать

litter – подстилка

to deliver [dɪˈlɪvə] – доставлять

immediate [ɪˈmiːdɪət] – немедленный

excess [ɪkˈses] – избыточный, излишний

build-up [ˈbɪldʌp] – накопление

to support [səˈpɔːt] – поддерживать

**6.18. Read the title of text B. What do you think good broiler stockmanship includes?**

**6.19. Look through the text and write the numbers of the paragraphs which mention the things listed below.**

1) antibiotic-free programmes for poultry;

2) birds’ behaviour and comfort level;

3) visitors’ access to the farm;

4) cleaning the poultry house;

5) providing chicks with access to feed and water.

**6.20. Find in the text the words that mean the following:**

1) the rules in handling livestock (*paragraph 1*);

2) keeping diseases out of the farm (*paragraph 3*);

3) the process of cleaning something with a chemical in order to destroy bacteria (*paragraph 4*);

4) a bacterium, virus, or other microorganism that can cause disease (*paragraph 4*);

5) a chemical substance in the form of a powder or a liquid for removing dirt (*paragraph 4*);

6) medical care given to a patient for an illness (*paragraph 7*).

**6.21. Look at paragraphs 1, 3, and 7 again. What words have the same meaning as:**

|  |  |
| --- | --- |
| • coming *(paragraph 1)* | • place *(paragraph 3)* |
| • method *(paragraph 1)* | • extra *(paragraph 7)* |
| • workers *(paragraph 3)* | • accumulation *(paragraph 7)* |

6.22. Read the text and do the tasks that follow.

**Text B: Practicing Good Broiler Stockmanship is the Key**

**to Minimising Antibiotic Use**

1The emergence of **antibiotic-free1** (ABF) or minimal-use antibiotic programmes around the world has focused attention on the importance of stockmanship and best-practice management techniques in the broiler house.

2A good stockman will use all senses – sight, taste, hearing, smell and feel – to stay “**in tune2**” with the birds’ behaviour and comfort level, and in the case of an ABF environment, stockmanship becomes even more important. The stockman must be able to recognise changes in flock behaviour which may indicate a problem that requires **prompt3** corrective action.

3Biosecurity should be a primary **focus4** for all broiler farms, but this is especially true for flocks grown without antibiotics. Access to the farm should be restricted to essential visitors at all times, and a visitor book should be used to document all personnel and equipment movement onto the farm. Site visitors must comply with visit farm protocols and, where possible, shower in and change into **freshly laundered5** farm clothing.

4Thorough cleaning and disinfection of the house, as well as appropriate **downtime6** between cycles (not less than 7 days) is necessary to prevent the carry-over of pathogens from the previous flock. Hot water and effective detergents should be used to ensure any organic material that may be present is completely removed from all surfaces and equipment. After cleaning, disinfection should take place.

5Bedding material can be a source of pathogens in a newly cleaned broiler house. If possible, heat-treated material should be used to eliminate the possibility of introducing health problems to a new flock.

6In order to achieve the correct environmental conditions when chicks are placed, houses should be heated to an air temperature of 30 C at least 24 hours prior to chick placement, with the litter temperature being 28 to 30 C. The relative humidity (RH) should be 60 to 70 percent and temperature and RH monitored routinely to ensure a uniform environment. Chicks must be delivered to the farm as soon as possible after hatching and be provided with immediate access to feed and water.

7The correct minimum ventilation **rate7** should be established prior to the chicks being placed. Minimum ventilation supplies adequate fresh air, removes excess moisture, and limits the build-up of potentially harmful gases and **airborne** **by-products8**. Inadequate minimum ventilation can lead to respiratory **challenges9** later in the flock’s life, which may require antibiotic treatment.

8Providing chicks with the correct environmental conditions promotes early development of feeding and drinking behaviour and optimises gut, organ and skeletal development to support body-weight gain and bird health throughout the life of the flock.

***Notes to the text:***

***1 – без использования антибиотиков***

***2 – на одной волне***

***3 – быстрый***

***4 – объект внимания***

***5 – свежевыстиранная***

***6 – здесь: перерыв***

***7 – интенсивность***

***8 – побочные продукты, присутствующие в воздухе***

***9 – проблемы***

**6.23. Answer the questions.**

1. What events have focused attention on the importance of stockmanship?

2. What must the stockman be able to recognise?

3. Why is it recommended to restrict visitors’ access to the farm?

4. What should be done to prevent the carry-over of pathogens from the previous flock?

5. What means are used to remove organic material from all surfaces and equipment?

6. What danger is associated with bedding material?

7. What is the importance of ventilation?

8. Why is it necessary to provide chicks with the correct environmental conditions?

**6.24. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. Best-practice management techniques in the broiler house are very important in case of minimal-use antibiotic programmes.

2. A good stockman needs all his senses.

3. All personnel and equipment movement onto the farm should be documented.

4. Site visitors should never take a shower and change their clothing.

5. Cleaning usually goes after disinfection.

6. Water systems must be cleaned and sanitised with approved products to remove biofilms.

7. The correct minimum ventilation rate should be established after the chicks being placed.

8. Any sick birds should be killed immediately.

6.25. What do these figures refer to: *30, 24, 28, 60, 70*?

**6.26. State the main principles of biosecurity.**

**6.27. Tell how to achieve the correct environmental conditions** **for chickens.**

**UNIT 7**

What do you know about rabbits?

**7.1. Learn the following words before reading text A.**

rabbit [ˈræbɪt] – кролик

[fur](https://en.wikipedia.org/wiki/Rabbit_hair) [fəː] – мех

[pelt](https://en.wikipedia.org/wiki/Fur) – шкурка (*в меховом производстве*)

nitrogen-rich [ˈnaɪtrədʒ(ə)n rɪtʃ] – богатый азотом

manure – помет, навоз

the [Angora rabbit](https://en.wikipedia.org/wiki/Angora_rabbit) – ангорская порода пуховых кроликов

antibody – антитело

[vaccine](https://en.wikipedia.org/wiki/Vaccine) [ˈvæksiːn] – вакцина

valuable [ˈvaljʊb(ə)l] – ценный

The [New Zealand White](https://en.wikipedia.org/wiki/New_Zealand_rabbit) – новозеландская белая порода кроликов мясного направления

pen – клетка

flesh – мясо

strain – порода

creature [ˈkriːtʃə] – существо

fluffy [ˈflʌfi] – пушистый

whiskers [ˈwɪskəz] – усы

ear [ɪə] – ухо

to deserve [dɪˈzəːv] – заслуживать

fertile [ˈfəːtaɪl] – плодовитый; фертильный

to breed – размножаться; давать приплод

kitten – детеныш пушного зверя; *здесь*: крольчонок

kit – детеныш пушного зверя; *здесь*: крольчонок

doe [dəʊ] – крольчиха

buck [bʌk] – самец кролика

similar – похожий

clover [ˈkləʊvə] – клевер

cruciferous [kruːˈsɪf(ə)rəs] plant – крестоцветное растение

Brussels sprouts [ˌbrʌs(ə)lz ˈspraʊts] – брюссельская капуста

root – корень; корнеплод

bud [bʌd] – почка

bark [bɑːk] – кора

**7.2. Practise the pronunciation of the following words.**

Japan [dʒəˈpæn], chemical [ˈkemɪk(ə)l], [stimuli](https://en.wikipedia.org/wiki/Stimulus_(physiology)) [ˈstɪmjʊlaɪ], system [ˈsɪstəm], monk [mʌŋk], southern [ˈsʌð(ə)n], Catholic [ˈkæθ(ə)lɪk], Church [tʃəːtʃ], giant [ˈdʒaɪənt], Minorca [mɪˈnɔːkə], pygmy [ˈpɪɡmi],.

7.3. Match the synonyms**.**

|  |  |
| --- | --- |
| 1. flesh | a. skin |
| 2. valuable | b. furry |
| 3. similar | c. animal |
| 4. fluffy | d. alike |
| 5. pelt | e. meat |
| 6. creature | f. useful |

7.4. Find the odd word in each line.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1) to breed | to raise | to keep | to kill | to rear |
| 2) tail | meat | teeth | eyes | ears |
| 3) antibody | vaccine | immunity | disease | gestation |
| 4) baby | litter | kitten | piglet | gosling |
| 5) to domesticate | to tame | to feed | to train | to break |
| 6) mud | nitrogen | oxygen | carbon | iron |

7.5. **Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. doe | a. a cage for keeping animals |
| 2. buck  3. fur | b. any preparation used to provide immunity against one or several diseases |
| 4. manure | c. a young rabbit |
| 5. pen  6. vaccine | d. long projecting hairs or bristles growing from the face or snout of many mammals |
| 7. kit | e. a male rabbit |
| 8. whiskers | f. animal excreta used for fertilizing land |
|  | g. a female rabbit |
|  | h. the short, fine, soft hair of certain animals |

**7.6.** Fill in the gaps with the words from ex.7.5. You may have to make small changes in these words.

1. My dog’s … needed brushing because it was so matted down from him rolling in the mud.

2. Doctors say that taking the flu … will reduce the effects of the illness.

3. You can build a … in a yard of any size to house varying numbers of rabbits.

4. A pregnant ... , on average, gains 0.029 kg during the first week of pregnancy.

5. … should not be removed from their mother until at least 8 weeks.

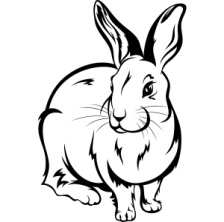
6. The … on a cat act as a sensor and allow the animal to detect motion.

7. Two adult … housed together are likely to fight.

8. The farmers were distributing … over the field.

7.7. Read the text and do the tasks that follow.

**Text A: Rabbits**

Rabbits are small [mammals](https://a-z-animals.com/reference/glossary/#jump-mammal) found naturally in [Europe](https://a-z-animals.com/animals/location/europe/), [South Africa](https://a-z-animals.com/animals/location/africa/south-africa/), Sumatra and [Japan](https://a-z-animals.com/animals/location/asia/japan/). Domestic rabbits are of great economic importance to people. Rabbit [meat](https://www.britannica.com/topic/meat), known for its delicate flavour, is an important source of protein in many cultures.

In addition to their meat, rabbits are used for their [wool](https://en.wikipedia.org/wiki/Wool), [fur](https://en.wikipedia.org/wiki/Rabbit_hair), and [pelts](https://en.wikipedia.org/wiki/Fur), as well as their nitrogen-rich manure and their high-protein milk. Production industries have developed domesticated rabbit breeds (such as the well-known [Angora rabbit](https://en.wikipedia.org/wiki/Angora_rabbit)) to efficiently fill these needs.

Moreover, rabbits have been and continue to be used in [laboratory](https://en.wikipedia.org/wiki/Laboratory) work such as production of [antibodies](https://en.wikipedia.org/wiki/Antibodies) for [vaccines](https://en.wikipedia.org/wiki/Vaccine). The rabbit is an extremely valuable model for studying the effects of [chemicals](https://en.wikipedia.org/wiki/Chemical) or other [**stimuli**](https://en.wikipedia.org/wiki/Stimulus_(physiology))**1** on the male reproductive system. The [New Zealand White](https://en.wikipedia.org/wiki/New_Zealand_rabbit) is one of the most commonly used breeds for research and testing.

***Highlights of the History of Rabbits***

The [domestication](https://www.britannica.com/science/domestication) of the European rabbit probably began during Roman times in Spain, where rabbits were collected and placed in pens to provide a source of meat and fur. Some 1,400 years ago, **monks2** from Southern France bred rabbits for meat because the Catholic Church allowed the flesh of young rabbits to be consumed during **Lent3**. Today there are more than 50 established strains of domestic rabbit, all selectively bred from this one species. But while rabbits may have been domesticated relatively recently, humans have been hunting the animals for about 120,000 years, and they have been around for much, much longer.

In 2008, researchers discovered a [53 million-year-old ancestor](http://www.hopkinsmedicine.org/news/media/releases/good_luck_indeed_53_million_year_old_rabbits_foot_bones_found) of the modern rabbit. The creature’s [foot bones](http://rspb.royalsocietypublishing.org/content/275/1639/1203) were found in a **coal mine4** in Gujarat, in West-Central India.

More recently, the skeleton of a [giant-sized rabbit ancestor](http://www.livescience.com/13340-giant-rabbit-fossils-minorca-island.html) was unearthed on the island of Minorca, off the coast of Spain, in 2011. Named *Nuralagus rex,* this creature, which lived between three and five million years ago, was about six times the size of today’s European rabbit, weighing in at around 26 pounds.

***Rabbit Facts***

Rabbits are small mammals with fluffy, short tails, whiskers and long ears. [They](http://www.care2.com/causes/success-permission-to-breed-rabbits-denied-2.html) are intelligent, social and very clean.

Some rabbits are about the size of a cat, and some can grow to be as big as a small child. Small rabbits, such as **pygmy5** rabbits, can be as little as 20 centimeters in length and weigh less than a pound. Larger species grow to 50 cm and weigh more than 10 lbs (4.5 kilograms).

Rabbits definitely deserve their reputation as being extremely fertile. They breed three to four times each year. Their pregnancy lasts 30 days and produces four to twelve babies, called kittens or kits. After four to five weeks, a kit can care for itself. In two or three months it is ready to start a family of its own and can have 800 children, grandchildren and great-grandchildren during its lifetime.

A female rabbit is a doe like a female **deer6**. Also, a male rabbit is called a buck. However, the animal rabbits are most similar to are not deer. They’re most similar to horses. They have similar eyes, teeth, and ears as well as a similar diet and behavior. Clearly, their size is much different.

Rabbits’ diet includes grasses, **clover7** and some **cruciferous plants8**, such as broccoli and **Brussels sprouts9**. They also eat fruits, seeds, roots, **buds10**, and **tree bark11**.

A rabbit’s teeth never stop growing. Fortunately, they’re naturally kept short by the normal **wear12** of chewing. Lots and lots of chewing, that is about 120 times a minute.

***Notes to the text:***

***1 – стимулы, мн. число от* stimulus**

***2 – монахи***

***3 – Великий пост***

***4 – угольная шахта***

***5 – карликовый***

***6 – олень***

***7 – стирание (зубов)***

7.8. Answer the questions.

1. Where are rabbits found naturally?

2. What rabbit breed is used for wool, fur and pelt production?

3. What breed is the most commonly used laboratory model?

4. What kind of research are rabbits used in?

5. Where and when did the domestication of rabbits begin?

6. How many strains of domestic rabbit are there in the world?

7. Why did monks from Southern France breed rabbits some 1,400 years ago?

8. How long have humans been hunting for rabbits?

9. How old is the rabbit ancestor found in West-Central India?

10. Why do rabbits have the reputation of extremely fertile animals?

11. What animals are rabbits similar to?

**7.9. Say whether the following statements are true or false. Correct the false ones.**

1. Rabbit meat has a coarse taste.

2. Rabbit manure is useless.

3. All strains of domestic rabbit are bred from different species.

4. Rabbits are mammals with fluffy, long tails and short ears.

5. The average litter size in rabbits is four to twelve kits.

6. Rabbits mature at the age of two or three months.

7. A rabbit can have 8000 children, grandchildren and great-grandchildren during its lifetime.

8. Rabbits and deer have similar behaviour.

9. Rabbits chew about 20 times a minute.

10. Rabbit teeth keep growing throughout the rabbit’s whole life.

**7.10. Find the English equivalents to the following word combinations in the text.**

Мелкие млекопитающие, богатый азотом, с высоким содержанием белка, породы домашних кроликов, удовлетворять потребности, производство антител для вакцин, научные исследования и опыты, мужская репродуктивная система, источник мяса и меха, мясо молодых кроликов, пушистый хвост, карликовые кролики.

**7.11. Join the halves of the sentences. Consult the text if necessary.**

|  |  |
| --- | --- |
| 1. Rabbits are found naturally  2. Production industries have | a. a [53 million-year-old ancestor](http://www.hopkinsmedicine.org/news/media/releases/good_luck_indeed_53_million_year_old_rabbits_foot_bones_found) of the modern rabbit. |
| developed | b. and very clean animals. |
| 3. In 2008, researchers discovered | c. is much different. |
| 4. The creature named *Nuralagus rex* 5. Rabbits are intelligent, social | d. in [Europe](https://a-z-animals.com/animals/location/europe/), [South Africa](https://a-z-animals.com/animals/location/africa/south-africa/), Sumatra and [Japan](https://a-z-animals.com/animals/location/asia/japan/). |
| 6. The size of rabbits and horses | e. by the normal wear of chewing. |
| 7. Rabbits’ teeth are naturally kept short | f. lived between three and five million years ago |
|  | g. many domesticated rabbit breeds. |

7.12. **Translate the sentences into English.**

1. Кролики имеют важное хозяйственное значение для людей.

2. Мясо кроликов, известное своим тонким вкусом, является важным источником белка.

3. Кроличий помет содержит большое количество азота.

4. Некоторые кролики могут быть размером с маленького ребенка.

5. Кролики чрезвычайно плодовиты.

6. Они дают приплод 3–4 раза в год.

7. Беременность крольчихи длится около месяца.

8. Рацион кроликов схож с рационом лошадей.

9. Некоторые крестоцветные растения служат кормом для кроликов.

10. Кроликов содержат в клетках.

**7.13. Fill in the chart about rabbits.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Kinds of rabbits according their sex and age | Length | Weight | Rabbits’  food | Products from rabbits |
|  |  |  |  |  |

**7.14. Describe the giant-sized ancestor of the modern rabbit found on the island of Minorca.**

**7.15. Tell about rabbit reproduction.**

7.16. **Match these** rabbit idioms with their meanings. Can you remember any situation that can be illustrated by them?

|  |  |
| --- | --- |
| 1. to breed like rabbits  2. to pull a rabbit out of a hat | a. so frightened or nervous that she/he doesn’t know what to do |
| 3. like a rabbit caught in the headlights | b. to get on with work someone is ready and waiting to do |
| 4. to let the dog see the rabbit | c. tasteless vegetable salads |
| 5. rabbit food | d. to have several babies in a short period of time |
|  | e. to do something surprising and seemingly impossible |

**7.17. Learn the words before reading text B.**

alfalfa [ælˈfælfə] – люцерна

pellet [ˈpelɪt] – гранула

juvenile [ˈdʒuːvənaɪl] – молодая особь

vegetable [ˈvedʒtəb(ə)l] – овощ

amount [əˈmaʊnt] – количество

to avoid [əˈvɔɪd] – избегать

timothy [ˈtɪməθi] – тимофеевка

calcium [ˈkalsɪəm] – кальций

calorie [ˈkæləri] – калория

calorie content – калорийность

to make up for – компенсировать

guideline [ˈɡaɪdlaɪn] – рекомендации

serving [ˈsəːvɪŋ] – порция

greens – зелень

treat [triːt] – лакомство

senior [ˈsiːnɪə] – кролик в возрасте шести месяцев и старше; половозре-лое животное

to maintain [meɪnˈteɪn] – поддерживать, сохранять

underweight [ˌʌndəˈweɪt] – имеющий недовес

annual [ˈænjʊəl] – ежегодный

blood test [ˈblʌd test] – анализ крови

**7.18. Read the title of text B and its subtitles. What rabbit life stages are mentioned in it?**

**7.19. Which of the following things do you think the text discusses? Skim it and write the numbers of the paragraphs in which you found them.**

1) weaning kits;

2) chemical composition of rabbit milk;

3) digestive problems;

4) weight problems;

5) feeding treats;

6) feed pellet composition.

**7.20. Look at paragraphs 1, 2, and 3 again. Find the words that mean the following:**

1) proteins produced in the blood that fight diseases by attacking and killing harmful bacteria (*paragraph 1*);

2) a leguminous plant with clover-like leaves and bluish flowers that is used for feeding farm animals (*paragraph 1*);

3) dried grass that is fed to certain farm animals (*paragraph 1*);

4) plants or plant parts used as food, such as a cabbage, potato, turnip, or bean (*paragraph 2*);

5) a Eurasian grass which is widely grown for grazing and hay (*paragraph 3*);

6) fibrous substances, such as the structural polymers of cell walls, consumption of which aids digestion and is believed to help prevent certain diseases (*paragraph 3*).

**7.21. Look through the text and find the words having the same meaning as:**

|  |  |
| --- | --- |
| • granule *(paragraph 1)* | • recommendation *(paragraph 4)* |
| • quantity *(paragraph 2)* | • portion *(paragraph 4)* |
| • to compensate *(paragraph 3)* | • to sustain *(paragraph 5)* |

7.22. Read the text and do the tasks that follow.

**Text B: Diet Requirements and Feeding Rabbits**

**at Different Life Stages**

1*Baby rabbits*: A baby rabbit, or kit, feeds **solely1** on its mother’s milk for about the first three weeks. During the first few days, the milk contains high levels of antibodies that help to protect the kit from disease. After three weeks, the kit will begin nibbling on alfalfa hay and pellets. By 7 weeks of age, baby rabbits can have unlimited access to pellets and alfalfa hay in addition to mother’s milk. Kits are usually weaned from their mother’s milk by 8 weeks of age, depending on the breed.

2*Juveniles*: Between weaning and 7 months of age, the young rabbit can have an unlimited amount of pellets and alfalfa hay. At 3 months of age, start introducing small amounts of vegetables into your rabbit’s diet. Introduce one vegetable at a time. If any vegetable seems to cause digestive problems, avoid feeding it in the future.

3*Young adults*: Young adult rabbits from the age of 7 months to 1 year should be introduced to timothy, grass hays, and/or oat hay, and it should be available all day long. The fibre in the hay is essential for their digestive systems to work properly. At this point, they will require little alfalfa hay, as well as fewer pellets. Alfalfa hay has more calories and calcium than rabbits need at this stage of development, and the high calorie content of pellets can also begin to cause weight problems. Instead of offering unlimited pellets, a good rule is 1/2 cup of pellets per 6 lbs. of body weight daily. To make up for the nutritional loss, you must increase your rabbit’s intake of vegetables and hay. You can feed your rabbit some fruits during this stage, but because of calories, limit them to no more than 1-2 **ounces2** per 6 pounds of body weight daily.

4*Mature adults*: Mature adult rabbits should be fed unlimited timothy, grass hay, and oat hay. Once again, you should reduce the pellet portion of the diet. A standard guideline is 1/4 cup of pellets per 6 lbs. of body weight per day. Several servings of vegetables are required (2 cups per 6 pounds of body weight daily). Make sure to choose dark, leafy greens, and feed at least three different kinds daily. Also, make sure you are offering dark yellow and orange vegetables. Treats, including fruits, must be fed **sparingly3**.

5*Seniors*: Senior rabbits over 6 years of age can be fed the same diet as mature adults if they do not have weight loss problems. You may need to increase pellet intake if your pet is not able to maintain his or her weight. Alfalfa can also be given to underweight rabbits, but only if calcium levels are normal. Annual blood tests are highly recommended for senior rabbits to determine the level of calcium and other components of the blood.

***Notes to the text:***

***1 – исключительно***

***2 – унции (унция – единица веса, равная 28,3 г)***

***3 – в небольшом количестве***

7.23. Answer the questions.

1. How long does a kit need only its mother’s milk?

2. When are kits normally weaned?

3. When is it recommended to introduce vegetables into the ration of rabbits?

4. In what cases should vegetables be avoided?

5. What kind of hay do young adults need?

6. Why do young adults require little alfalfa hay and fewer pellets?

7. What kind of greens and vegetables do mature adults need?

8. When do you have to increase pellet intake by senior rabbits?

**7.24. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. Antibodies in the mother’s milk help to protect the kit from disease.

2. By 5 weeks of age, baby rabbits can have unlimited access to pellets and alfalfa hay.

3. Between weaning and 7 months of age, juveniles can have an unlimited amount of pellets and alfalfa hay.

4. Young adults from the age of 7 months to 1 year should be introduced to timothy, grass hays, and/or oat hay.

5. A rabbit’s diet can be supplemented with flowers.

6. Young adults can have 2-4 ounces of fruits per 6 pounds of body weight daily.

7. A sudden change in the diet should be avoided as it can be fatal.

8. Mature adult rabbits need unlimited timothy, grass hay, and oat hay.

9. Alfalfa hay is low in calcium.

10. Annual blood tests are highly recommended for rabbits at all life stages.

**7.25. Fill in the chart about rabbits’ diet requirements at different life stages.**

|  |  |
| --- | --- |
| Life Stage | Kinds of Food |
| Baby rabbits | Mother’s milk, … |
| … |  |
| … |  |
| … |  |
| … | …, pellets |

**7.26. Tell how the feeding of baby rabbits varies with their age.**

**7.27. Give special recommendations on feeding and care of senior rabbits.**

**UNIT 8**

What do you know about bees?

**8.1. Learn the following words before reading text A.**

honey [ˈhʌni] – мед

honey bee – пчела медоносная, пчела домашняя

to inhabit [ɪnˈhæbɪt] – обитать

meadow [ˈmedoʊ] – луг

pollination [ˌpɒlɪˈneɪʃən] – опыление

beeswax [ˈbiːzwæks] – воск

venom [ˈvenəm] – яд

propolis [ˈprɒp(ə)lɪs] – прополис, пчелиный клей

pollen [ˈpɒlən] – пыльца

royal jelly [ˌrɔɪəl ˈdʒeli] – маточное молочко

to derive [dɪˈraɪv] from – получать из

beehive [ˈbiːhaɪv] – улей; рой

apiculture [ˈeɪpɪˌkʌltʃə] – пчеловодство

apiary [ˈeɪpɪəri] – пасека

queen bee – пчелиная матка, пчеломатка

drone [drəʊn] – трутень

worker bee – рабочая пчела

cell [sel] – ячейка (*в сотах*)

[honeycomb](https://en.wikipedia.org/wiki/Honeycomb) [ˈhʌnɪkəʊm] – соты

spermatheca – сперматека, семяприемник

haploid [ˈhæplɔɪd] – гаплоидный (*с одинарным набором хромосом*)

diploid [ˈdɪplɔɪd] – диплоидный (*с двойным набором хромосом*)

larva [ˈlɑːvə] – личинка, *мн.* – larvae [ˈlɑːviː]

gland – железа

to atrophy [ˈætrəfi] – атрофироваться

forager [ˈfɒrɪdʒə] – пчела-сборщица, полевая пчела

to guard [ɡɑːd] – охранять

swarm [swɔːm] – рой

remainder [rɪˈmeɪndə] – остаток

mated – спарившийся

scout bee – пчела-разведчица

**8.2. In the list of words given above find the ones belonging to these two categories:**

Kinds of bees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Products from bees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8.3. Practise the pronunciation of the following words.**

Chemist [ˈkemɪst], engineer [ˌendʒɪˈnɪə], synthesized [ˈsɪnθəsaɪzd], ingredient [ɪnˈɡriːdɪənt], through [θruː], pharaoh [ˈfeəroʊ], Tutankhamen [ˌtuːt(ə)nˈkɑːmen], China [ˈtʃaɪnə], Israel [ˈɪzreɪ(ə)l], sterile [ˈsteraɪl].

**8.4. Match the synonyms.**

|  |  |
| --- | --- |
| 1. to inhabit | a. to degenerate |
| 2. to derive from | b. beekeeping |
| 3. apiculture | c. fertilised |
| 4. to guard | d. to live |
| 5. to atrophy | e. to get from |
| 6. mated | f. to protect |

**8.5.** **Match the words with their definitions.**

|  |  |
| --- | --- |
| 1. meadow  2. pollination | a. a place where bees are kept, usually in beehives |
| 3. apiary  4. beehive | b. a structure of hexagonal cells of wax, made by bees to store honey and eggs |
| 5. honeycomb  6. gland  7. swarm | c. a specialized cell, group of cells, or organ which secretes particular chemical substances |
| 8. larva | d. a great number of honeybees emigrating together from a hive in company with a queen to start a new colony |
|  | e. a field with grass and wild flowers in it |
|  | f. a box-like or dome-shaped structure in which bees are kept |
|  | g. the immature, wingless, feeding stage of an insect |
|  | h. the transfer of pollen from a male part of a plant to a female part of a plant |

**8.6. Fill in the gaps with the words from ex.8.5.**

1. The ... was nearby; half a dozen hives faced south down the slope.

2. Beekeepers may remove the entire ... to harvest honey.

3. To the beekeeper, a ... represents a loss of bees resulting in less or no honey production.

4. This ... produces a pheromone attracting workers to a settled swarm.

5. Part of her own garden is a wildflower ... .

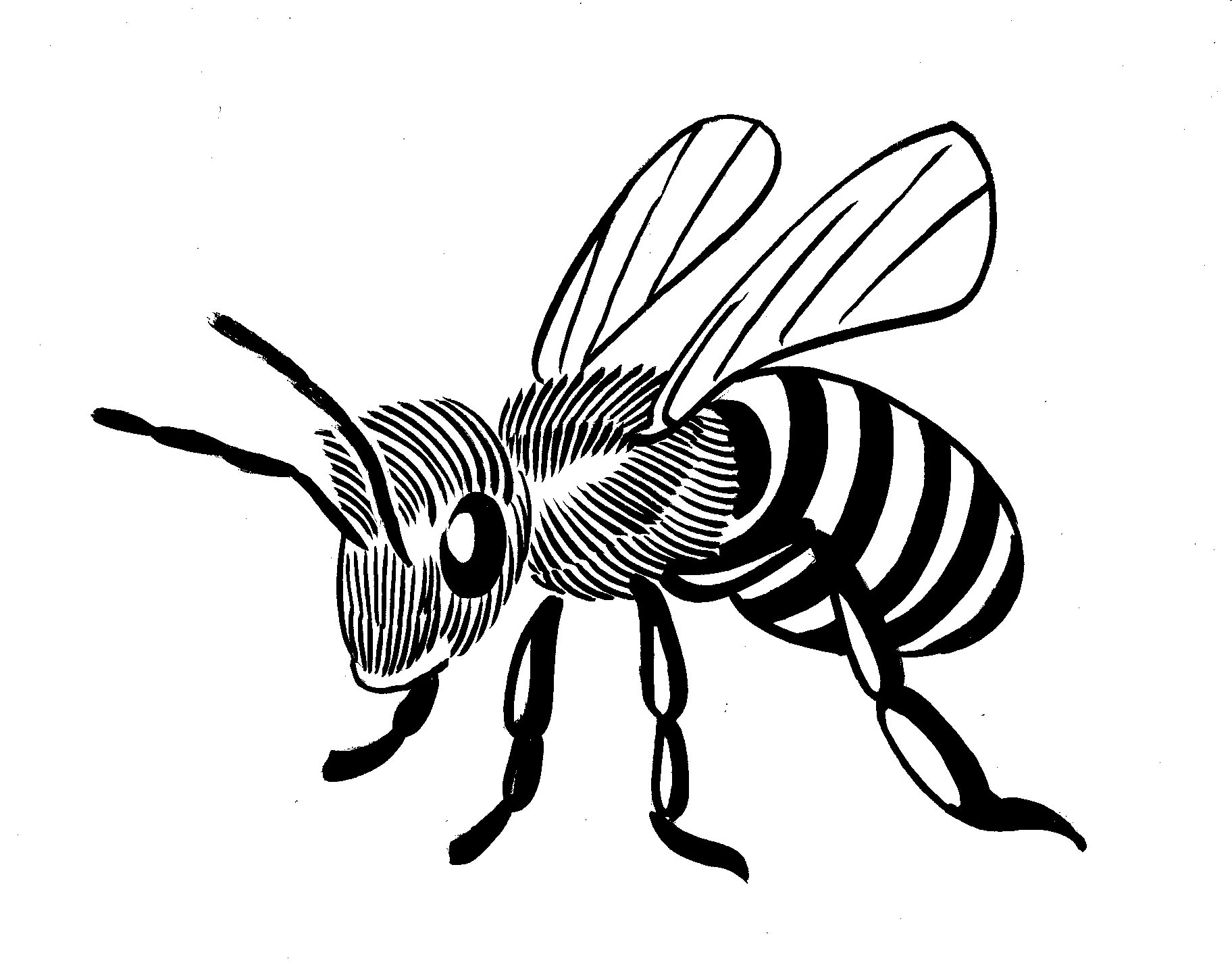
6. Each ... has one queen, and 100 female worker bees for every male drone bee.

7. After three days, the egg hatches into a worm-like form called a ... .

8. In order for a plant or flower to produce seeds, ... must occur between two flowers.

8.7. Read the text and do the tasks that follow.

**Text A: Bees**

The honey bee is a small-sized bee that inhabits quiet forests, jungles, meadows and gardens all over the world. There are only 7 recognized [species](https://a-z-animals.com/reference/glossary/#jump-species) of honey bee, with a total of 44 [subspecies](https://en.wikipedia.org/wiki/Subspecies). The best known honey bee is the [Western honey bee](https://en.wikipedia.org/wiki/Western_honey_bee) or European honey bee (*Apis mellifera*) which has been domesticated for honey production and crop pollination. A third of what we eat is **reliant on1** bee pollination.

Honey bees are master chemists and chemical engineers. Their products include honey, beeswax, venom, propolis, pollen, and royal jelly. Three of these products, beeswax, venom, and royal jelly, are chemically synthesized by the bees themselves. The other three are derived from plants and modified and engineered by the bees for their own use. All these ingredients are essential to the bee, and without them the bee and the entire beehive could not survive.

***Highlights of the History of Bees***

Honey and bees’ products follow man through history. Honey sweetened the lives of people and at the same time was a preventive against many illnesses.

Bees were likely first domesticated in [ancient Egypt](https://en.wikipedia.org/wiki/Ancient_Egypt). **Sealed pots2** of honey were found in the **grave goods3** of pharaohs such as Tutankhamen.

In prehistoric Greece, there existed a system of high-status apiculture. Beekeeping was considered a highly valued industry.

Honey was a regular staple of the ancient Roman diet. Keeping bees was a respected art and apiaries were elaborate and large in many places.

Beekeeping was also practiced in [ancient China](https://en.wikipedia.org/wiki/Ancient_China).

Hives, made of straw and **unbaked clay4**, were discovered in Israel, dating from about 900 BC.

Europeans brought bees to North America in 1622.

***Bee Facts***

A colony generally contains one [queen bee](https://en.wikipedia.org/wiki/Queen_bee), a fertile female; seasonally up to a few thousand [drone bees](https://en.wikipedia.org/wiki/Drone_bee), or fertile males; and tens of thousands of sterile female [worker bees](https://en.wikipedia.org/wiki/Worker_bee).

Eggs are laid singly in a cell in a wax [honeycomb](https://en.wikipedia.org/wiki/Honeycomb), produced and shaped by the worker bees. Using her [spermatheca](https://en.wikipedia.org/wiki/Spermatheca), the queen can choose to fertilize the egg she is laying, usually depending on into which cell she is laying. Drones develop from unfertilized eggs and are [haploid](https://en.wikipedia.org/wiki/Ploidy#Haploid_and_monoploid), while females (queens and worker bees) develop from fertilized eggs and are [diploid](https://en.wikipedia.org/wiki/Ploidy#Diploid). Larvae are initially fed with [royal jelly](https://en.wikipedia.org/wiki/Royal_jelly) produced by worker bees, later switching to honey and pollen. The exception is a larva fed solely on royal jelly, which will develop into a queen bee.

Young worker bees clean the hive and feed the larvae. When their royal jelly-producing glands begin to atrophy, they begin building comb cells. They progress to other within-colony tasks as they become older, such as receiving nectar and pollen from foragers, and guarding the hive. Later still, a worker takes her first orientation flight and finally leaves the hive and typically spends the remainder of her life as a forager.

Colonies are established by groups known as “swarms”, which consist of a mated queen and a large number of worker bees. This group moves to a nest site which was found by scout bees beforehand and whose location is communicated with a special type of dance.

***Notes to the text:***

***1 – зависит от***

***2 – запечатанные горшки***

***3 – погребальные принадлежности***

***4 – необожженная глина***

**8.8. Answer the following questions.**

1. What is the natural habitat of the honey bee?

2. How many species and subspecies of honey bee are there in the world?

3. What is he best known honey bee?

4. Why are honey bees called master chemists?

5. Where were bees likely first domesticated?

6. What was the status of apiculture in prehistoric Greece and Rome?

7. What does a bee colony usually consist of?

8. Where are eggs laid?

9. From what eggs do drones develop?

10. From what eggs do females develop?

11. What are larvae are fed with?

12. What do young worker bees usually do?

**8.9. Say whether the following statements are true or false. Correct the false ones.**

1. A fifth of what we eat is reliant on bee pollination.

2. Beeswax, venom, and royal jelly are derived from plants.

3. Beehives dating from about 900 BC were discovered in Israel.

4. Europeans brought bees to North America in 1422.

5. The wax honeycomb is made by the worker bees.

6. Drones are diploid.

7. A larva which will develop into a queen bee is fed solely on royal jelly.

8. Royal jelly-producing glands in worker bees never atrophy.

9. Worker bees receive nectar and pollen from foragers, and guard the hive.

10. Bees communicate with each other by dancing.

**8.10. Find the English equivalents of the following words and word combinations in the text.**

Луга и сады, целый улей, химически синтезируются, получают из растений, высокоразвитая система пчеловодства, восковые соты, фертильная самка, профилактическое средство против многих болезней, неоплодотворенные яйца, другая работа внутри колонии, первый ориентировочный полет, спарившаяся матка.

**8.11. Summarize the information given in the text and fill in the following table.**

|  |  |
| --- | --- |
| Kinds of bees | Their functions |
|  |  |

**8.12. Translate the sentences into English.**

1. Европейскую пчелу одомашнили ради производства меда и опыления культур.

2. Медоносные пчелы – искусные инженеры-химики.

3. Продукты пчеловодства сопровождают человека на протяжении всей его истории.

4. Мед был одним из основных продуктов питания в рационе древних римлян.

5. В Древнем Китае также занимались пчеловодством.

6. Пчеломатка оплодотворяет яйца, используя свою сперматеку.

7. Пчелиный рой состоит из спарившейся матки и большого количества рабочих пчел.

8. Пчелы-разведчики заранее находят место для нового гнезда.

**8.13. Speak about the importance of honey bees for mankind.**

**8.14. Tell how worker bees’ tasks vary with their age.**

**8.15. Explain how new colonies are established.**

**8.16.** Match these **bee idioms with their meanings. Can you remember any situation that can be illustrated by them?**

|  |  |
| --- | --- |
| 1. to be as busy as a bee | a. something or someone extremely good |
| 2. a bee in one’s bonnet  3. to put the bee on somebody | b. a woman who has authority or is in a dominant position over her colleagues |
| 4. queen bee  5. the bee’s knees | c. a strange idea in one’s mind, an obsession |
|  | d. to squeeze money from somebody |
|  | e. to be moving about quickly doing many things |

**8.17. Learn the words before reading text B.**

pesticide [ˈpestɪsaɪd] – пестицид

death [deθ] – гибель

sample [ˈsɑːmp(ə)l] – образец; проба

trace [treɪs] – след; незначительное количество

permitted [pəˈmɪtɪd] – разрешенный

beneficial [ˌbenɪˈfɪʃ(ə)l] – полезный

impact [ˈɪmpækt] – воздействие, влияние

pollinator [ˈpɒlɪneɪtə] – опылитель

decline [dɪˈklaɪn] – уменьшение; ухудшение

field study – полевое исследование

prevalence [ˈprev(ə)ləns] – преобладание; широкое распространение

to gather [ˈɡæðə] – собирать

survey [ˈsəːveɪ] – исследование

finding [ˈfaɪndɪŋ] – полученные данные

ban [bæn] – запрет

contaminated [kənˈtæmɪneɪtɪd] – загрязненный; зараженный

concern [kənˈsəːn] – беспокойство; забота

assessment [əˈsesmənt] – оценка

evaluation [ɪˌvæljʊˈeɪʃ(ə)n] – оценка

compound [ˈkɒmpaʊnd] – соединение (*хим.*)

persistent [pəˈsɪst(ə)nt] – стойкий, устойчивый

frequently [ˈfriːkwəntli] – часто

to turn up – оказываться

to be involved in – принимать участие

landscape [ˈlæn(d)skeɪp] – ландшафт

to contribute [kənˈtrɪbjuːt] – способствовать

collapse [kəˈlæps] – резкое падение

biodiversity [ˌbaɪə(ʊ)daɪˈvəːsəti] – биоразнообразие

government [ˈɡʌv(ə)nmənt] – правительство

permanent [ˈpəːm(ə)nənt] – постоянный

solution [səˈluːʃ(ə)n] – решение

**8.18. Read the title of text B. Judging by the title and the words from ex. 8.17., which of these things do you think are mentioned in it? Look through the text and write the numbers of the paragraphs in which you found them.**

1) the maximum permitted levels of pesticide in food for humans;

2) the impact of neonicotinoids on pollinators;

3) the effect of pesticides on soil-dwelling insects;

4) the concentrations of chemicals in honey samples;

5) the cocktail effect of the mixing of several neonicotinoids;

6) a permanent ban on the use of neonicotinoids.

8.19. Put each word in the correct blank.

1) *scientists* / *pollinators*

The death of \_\_\_\_\_\_ troubles \_\_\_\_\_\_ around the world.

2) *use* / *decline*

The \_\_\_\_\_\_ in both the numbers and health of bees is connected with the \_\_\_\_\_\_ of pesticides.

3) *traces* / *samples*

The study found \_\_\_\_\_\_ of pesticides in all honey \_\_\_\_\_\_ .

4) *compound* / *evaluation*

The \_\_\_\_\_\_ of the risk is made from one single \_\_\_\_\_\_ in one test organism.

5) *landscapes* / *neurotoxins*

Many \_\_\_\_\_\_ in the world are contaminated with dangerous \_\_\_\_\_\_.

6) *warning* / *finding*

This \_\_\_\_\_\_ is a serious \_\_\_\_\_\_ to us.

**8.20. Look through the text and find the words having the same meaning as:**

|  |  |
| --- | --- |
| • useful *(paragraph 2)* | • collected *(paragraph 4)* |
| • effect *(paragraph 3)* | • research *(paragraph 5)* |
| • dominance *(paragraph 4)* | • constant *(paragraph 12)* |

**8.21. Read the text and do the tasks that follow.**

**Text B: Pesticides Linked to Bee Deaths Found**

**in Most Honey Samples**

1A new study has found traces of **neonicotinoid1** chemicals in 75% of honey samples from across the world. The scientists say that the levels of the widely used pesticide are far below the maximum permitted levels in food for humans. In one-third of the honey, the amount of the chemical found was enough to be harmful to bees.

2Neonicotinoids are considered to be the world’s most widely used class of insecticides. They have generally been seen as being more beneficial for the environment than the older products that they have replaced.

3However, the impact of neonicotinoids on pollinators such as bees has long been a **troubling subject2** for scientists around the world. **Successive3** studies have shown a connection between the use of the products and a decline in both the numbers and health of bees.

4Earlier this year, the most **comprehensive4** field study to date concluded that the pesticides harm honey bees and wild bees. This new study looks at the prevalence of neonicotinoids in 198 honey samples gathered on every continent (except Antarctica).

5The survey found at least one example of these chemicals in 75% of the honey, from all parts of the globe. Concentrations were highest in North America, Asia and Europe. The European finding is a puzzle as there has been a ban on the use of these products in place since 2013.

6The authors believe though that the finding should not be a worry to people who eat honey. “It is well below the limit so I think it is not a major public health concern,” author Dr Alexandre Aebi from the University of Neuchatel in Switzerland, told BBC News. “We would have to eat an awful lot of honey and other contaminated products to see an effect, but I think it’s a **warning5**. Neonicotinoids have just been shown to cause **endocrine perturbations6** in honey bees, so who knows?”

7The bigger concern according to Dr Aebi was the impact on bees and other pollinators. Some 34% of the honey samples showed the presence of neonicotinoids at levels that would harm bees.

8Of particular concern to the authors was the cocktail effect, the mixing of two or more neonicotinoids found in 45% of the samples. “It is definitely **scary7** for honeybees and other bees and useful insects,” he said.

9“We have up to five molecules in one single sample. From a risk assessment point of view, the evaluation of the risk is made from one single compound in one test organism. So the cocktail is not tested. Mixed effects should be taken seriously.”

10“Neonicotinoids are highly persistent in the environment, and frequently turn up in soils, water samples, and in wildflowers, so we would expect to find them in honey,” said Dave Goulson, professor of biology at the University of Sussex, who was not involved in the study.

11“Entire landscapes all over the world are now **permeated8** with **highly potent9** neurotoxins, undoubtedly contributing to the global collapse of biodiversity. Some of us have been pointing this out for years, but few governments have listened.”

12The authors of the new study believe that a permanent ban, as proposed in France, is the best solution.

***Notes to the text:***

***1 – неоникотиноидный (инсектицид)***

***2 – предмет беспокойства***

***3 – последовательные***

***4 – всестороннее***

***5 – предупреждение; предостережение***

***6 – эндокринные нарушения***

***7 – здесь: опасно***

***8 – насыщены***

***9 – высокоактивные***

8.22. Answer the questions.

1. What has the new study found?

2. Why have neonicotinoids replaced older products?

3. Why does the use of neonicotinoids trouble scientists around the world?

4. What honey samples contained the highest concentration of pesticides, according to the survey?

5. Why does the European finding surprise the authors?

6. What is the effect of neonicotinoids on the endocrine system of honey bees?

7. What was of particular concern to the authors?

8. What is the characteristic feature of neonicotinoids?

9. What is the best solution to the problem, according to the authors of the study?

**8.23. Say whether these facts are true or false or not mentioned in the text. Correct the false ones.**

1. Neonicotinoids are the world’s most rarely used class of insecticides.

2. There is a definite connection between the use of neonicotinoids and a decline in both the numbers and health of bees.

3. 198 honey samples were gathered on every continent including Antarctica.

4. Dr Aebi is an amateur beekeeper whose own honey was analysed in the study.

5. At least one example of neonicotinoids was found in 75% of the honey.

6. Concentrations were highest in South America and Africa.

7. The authors believe that the finding should be a great worry to people who eat honey.

8. Mixed effects of neonicotinoids have never been assessed.

9. Field exposure of bees to neonicotinoids results in disorientation, reduced foraging, impaired memory and learning.

10 Highly potent neurotoxins permeating landscapes all over the world contribute to the global collapse of biodiversity.

**8.24. Join the halves of the sentences. Consult the text if necessary.**

|  |  |
| --- | --- |
| 1. The levels of the pesticide are far below | a. for honeybees and other useful insects. |
| 2. But in one-third of the honey, the amount of the chemical was enough | b. up to five molecules of different pesticides. |
| 3. One single honey sample contains  4. The cocktail effect is definitely | c. to be harmful to bees and other pollinators. |
| scary | d. to the scientists’ warnings. |
| 5. The evaluation of the risk is made 6. Very few governments have | e. the maximum permitted levels in food for humans. |
| listened | f. from one single compound in one test organism. |

**8.25. What do you think of the problem stated in the text? Is it relevant for our country?**

**8.26. Do you like honey? Do you want to eat pesticide-containing honey? Do you believe it is safe?**

**Farm Animals Quiz**

**Welcome to the farm animals quiz which will test your knowledge of farm and domesticated animals around the world.**

1. Which farm animal lays eggs?

a) cow

b) horse

c) chicken

2. Where does a hamburger come from?

a) cow

b) horse

c) goat

3. Who do we get milk from?

a) horse

b) pig

c) cow

4. Where does bacon come from?

a) pig

b) cow

c) goat

5. Which animal is sheared for its fleece?

a) horse

b) sheep

c) cow

6. How many chickens are there thought to be in the world?

a) 25 billion

b) 15 billion

c) 5 billion

7. How many teeth does a piglet have?

a) 38

b) 18

c) 28

8. What does a duck not use its beak for?

a) feeding

b) grooming

c) swimming

9. Which habitat did goats originate from?

a) rainforest

b) desert

c) mountains

10. In Australia, what animal is farmed for meat, oil and leather?

a) koala

b) emu

c) wombat

11. Where would you expect yaks to be farmed?

a) Asia

b) Africa

c) Europe

12. In which country is the cow seen as a sacred animal?

a) Australia

b) India

c) Thailand

13. Out of the more than 1,000 different species of sheep, how many of them are domestic?

a) 200

b) 600

c) 400

14. In the 1800s, approximately how many million bison where inhabiting the North American plains?

a) 60-100 million

b) 1-5 million

c) 10-50 million

15. Which bird’s egg is the biggest?

a) ostrich

b) goose

c) chicken

16. What type of animal is a Holstein?

a) sheep

b) cow

c) goat

17. What type of animal is a Rhode Island Red?

a) duck

b) horse

c) chicken

18. What type of animal is a Nubian?

a) cow

b) sheep

c) goat

19. What is a group of birds called?

a) herd

b) crowd

c) flock

20. Which of these animals is also known as a billy?

a) goat

b) ostrich

c) chicken

21. In some countries, donkeys are used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_ things.

a) carry

b) chase

c) control

22. Which animal is not a baby?

a) duck

b) chick

c) calf

23. A large number of cows is called a \_\_\_\_\_\_\_\_ .

a) collar

b) group

c) herd

24. Baby geese are called \_\_\_\_\_\_\_\_\_\_\_.

a) gooselings

b) gosslers

c) goslings

25. Other than a dog, what animal do some farmers use to protect their sheep from predators?

a) bull

b) llama

c) rooster

26. How smart are pigs?

a) as smart as or smarter than dogs

b) as smart as or smarter than 3-year-old children

c) as smart as or smarter than cats

27. When were cows first domesticated?

a) 6,000 years ago

b) 7,500 years ago

c) 10,500 years ago

28. What do you get when you cross a goat and a sheep?

a) shoat

b) geep

c) sheet

29. What do you get when you cross a female donkey with a male horse?

a) mule

b) horsey

c) hinny

30. Turkeys are native to:

a) Western Europe

b) North America

c) Middle East

31. Chickens love to bathe in:

a) water

b) dust

c) droppings

32. How many breeds of cow are there worldwide?

a) about 400

b) about 500

c) about 800

33. Which animal gives birth to foals?

a) horse

b) cow

c) sheep

34. What is it called when chickens lose their old feathers to get new ones?

a) feathering

b) balding

c) molting

35. How long does it take for a fertilized chicken egg to hatch?

a) 21 days

b) 14 days

c) 2 months

36. What is an unbred female cow called?

a) steer

b) sow

c) heifer

37. What is a female sheep called or known as?

a) colt

b) ram

c) ewe

38. What do you call a baby or young goat?

a) kid

b) mutt

c) kit

39. Which farm animal was the first in the world to be DNA cloned?

a) sheep

b) pig

c) duck

40. Why do pigs like to roll and cover themselves in mud?

a) they don’t have sweat glands so it helps keep them cool

b) it protects their sensitive skin from the sun and flies and other insects

c) all of these answers are correct

***Answer Key:*** *1c; 2a; 3c; 4a; 5b; 6a; 7c, 8c; 9c; 10b; 11a; 12b; 13a; 14a; 15a; 16b; 17c; 18c; 19c; 20a; 21a, 22a; 23c; 24c; 25b; 26b; 27c; 28b; 29c; 30b; 31b; 32c; 33a; 34c; 35a; 36c; 37c; 38a; 39a; 40a.*

**Vocabulary**

**A**

Angora – ангорская порода пуховых кроликов

ability [əˈbɪləti] – возможность, способность

abomasum [ˌæbə(ʊ)ˈmeɪsəm] – сычуг

access [ˈækses] – доступ

achieve [əˈtʃiːv] – достигать, добиваться

adopt [əˈdɒpt] − выбирать

adult [ˈædʌlt] – взрослый

affect [əˈfekt] – влиять; плохо отражаться

ailment [ˈeɪlm(ə)nt] – болезнь, заболевание

airways [ˈeəweɪz] – дыхательные пути

alfalfa [ælˈfælfə] – люцерна

amount [əˈmaʊnt] – количество

Anglo-Nubian [ˌanɡləʊ ˈnjuːbɪən] – англо-нубийская порода коз молочного направления

annual [ˈænjʊəl] – ежегодный

annual [ˈænjuəl] – однолетний

antibody – антитело

anticipate [ænˈtɪsɪpeɪt] – ожидать, предвидеть

apiary [ˈeɪpɪəri] – пасека

apiculture [ˈeɪpɪˌkʌltʃə] – пчеловодство

appearance [əˈpɪər(ə)ns] – внешность

appropriate [əˈprəʊpriət] – подходящий

artificially [ˌɑːtɪˈfɪʃ(ə)li] – искусственно

assess [əˈses] – оценивать

assessment [əˈsesmənt] – оценка

atrophy [ˈætrəfi] – атрофироваться

attempt [əˈtempt] − пытаться, стараться

available [əˈveɪləb(ə)l] – доступный; имеющийся в наличии, в распоряжении

average [ˈæv(ə)rɪdʒ] – составлять в среднем

average [ˈæv(ə)rɪdʒ] – средний

avoid [əˈvɔɪd] – избегать

**B**

ban [bæn] – запрет

bark [bɑːk] – кора

barn – конюшня; сарай

be involved in – принимать участие

beak [biːk] – клюв

beard [bɪəd] – борода (у животного)

bedding – подстилка (*для скота*)

beef [biːf] – говядина

beef [biːf] cow – мясная корова

beef cattle – мясной скот

beehive [ˈbiːhaɪv] – улей; рой

beeswax [ˈbiːzwæks] – воск

behaviour [bɪˈheɪvjə] – поведение

beneficial [ˌbenɪˈfɪʃ(ə)l] – полезный

bill – клюв

billy goat – *разг.* козел

biodiversity [ˌbaɪə(ʊ)dʌɪˈvəːsəti] – биоразнообразие

biosecurity [ˌbaɪə(ʊ)sɪˈkjʊərəti] – биобезопасность

bird [bəːd] – птица

bite – кусать(ся)

blood [blʌd] – кровь

blood test [ˈblʌd test] – анализ крови

boar [bɔː] – кабан; боров

body condition graph [ɡrɑːf] – диаграмма состояния тела

bolt [bəʊlt] – убежать, понести (о лошади)

bone – кость

bran – отруби

break – объезжать, приучать к поводьям

breed – порода

breed – размножаться; давать приплод; осеменять

breeding – разведение; случка

bridle [ˈbraɪd(ə)l] – уздечка

broody [ˈbruːdi] hen – наседка

Brussels sprouts [ˌbrʌs(ə)lz ˈspraʊts] – брюссельская капуста

buck – становиться на дыбы

buck [bʌk] – самец кролика

bud [bʌd] – почка

build-up [ˈbɪldʌp] – накопление

bull – бык

butt [bʌt] – бодаться

**C**

calcium [ˈkalsɪəm] – кальций

calf [kɑːf] теленок, мн. – calves [kɑːvz]; телиться

calorie [ˈkæləri] – калория

calorie content – калорийность

carcass [ˈkɑːkəs] – туша

carrot [ˈkærət] – морковь

carry-over – перенос

case – случай

cattle – крупный рогатый скот

cause [kɔːz] – вызывать

cell [sel] – ячейка (*в сотах*)

chamber [ˈtʃeɪmbə] – отдел (*желудка*)

chew [tʃuː] – жевать

chick – цыплёнок

chin – подбородок

chomp – жевать

claw [klɔː] – коготь

clippers – ножницы (для стрижки овец)

clover [ˈkləʊvə] – клевер

cock – петух

collapse [kəˈlæps] – резкое падение

colt [kəʊlt] – жеребчик

comb [kəʊm] – гребень

comply [kəmˈplaɪ] with – подчиняться (*требованиям, правилам*)

compound [ˈkɒmpaʊnd] – соединение (*хим.*)

concern [kənˈsəːn] – беспокойство; забота

conditions [kənˈdɪʃənz] – условия

consume [kənˈsjuːm] – потреблять; съедать

contaminated [kənˈtæmɪneɪtɪd] – загрязненный; зараженный

contribute [kənˈtrɪbjuːt] – способствовать

coop [kuːp] – курятник; клетка для кур, домашней птицы

corn – кукуруза

cornstalk – стебель кукурузы

cow [kaʊ] – корова

creature [ˈkriːtʃə] – существо

crossbreed [ˈkrɒsbriːd] – гибрид, кроссбред

cruciferous [kruːˈsɪf(ə)rəs] plant – крестоцветное растение

cud – жвачка

**D**

daily gain – суточный прирост

dairy [ˈdeəri] cow – молочная корова

dam [dæm] – (кобыла-)производительница, матка

damp – сырой, влажный

death [deθ] – гибель

decline [dɪˈklaɪn] – уменьшение; ухудшение

deliver [dɪˈlɪvə] – доставлять

derive [dɪˈraɪv] from – получать из

descend [dɪˈsend] from – происходить от

deserve [dɪˈzəːv] – заслуживать

detergent [dɪˈtəːdʒ(ə)nt] – очищающее, моющее средство

determine [dɪˈtəːmɪn] – определять, решать

diarrhoea [ˌdaɪəˈriə] − понос, диарея

diet [ˈdaɪət] – рацион

digest [daɪˈdʒest] – переваривать

dip – мыть в дезинфицирующем растворе

diploid [ˈdɪplɔɪd] – диплоидный (*с двойным набором хромосом*)

disease [dɪˈziːz] – болезнь

disinfection [ˌdɪsɪnˈfekʃ(ə)n] – дезинфекция, обеззараживание

doe [dəʊ] – крольчиха

domestic fowl [faʊl] – домашняя птица

dormant [ˈdɔːm(ə)nt] – в состоянии покоя

down [daʊn] – пух

drainage [ˈdreɪnɪdʒ] – сток

drake [dreɪk] – селезень

drinker − поилка

drone [drəʊn] – трутень

drop − ронять

dry matter – сухое вещество

duck [dʌk] – утка

duckling – утенок

dung [dʌŋ] – помет, навоз

dust [dʌst] – пыль

Dutch Bantam [ˌdʌtʃ ˈbæntəm] – голландская бентамка (*карликовая порода домашних кур*)

**E**

ear [ɪə] – ухо

efficient [ɪˈfɪʃ(ə)nt] – продуктивный

egg – яйцо

eliminate [ɪˈlɪmɪneɪt] – устранять, исключать

emergence [ɪˈməːdʒ(ə)ns] – появление

ensure [ɪnˈʃɔː] – позаботиться о том, чтобы

entire [ɪnˈtaɪə] – целый, весь

environment [ɪnˈvaɪrənm(ə)nt] – среда

equipment [ɪˈkwɪpmənt] – оборудование

essential [ɪˈsenʃ(ə)l] – важный; необходимый

evaluation [ɪˌvæljʊˈeɪʃ(ə)n] – оценка

ewe [ju:] – овца

excess [ɪkˈses] – избыточный, излишний

exposure [ɪkˈspəʊʒə] – воздействие

eyesight [ˈaɪsaɪt] – зрение

**F**

faeces [ˈfiːsiːz] − фекалии

farmyard – двор

farrowing [ˈfærəʊɪŋ] **–** опорос

fat – жир

fatten – откармливать

feather [ˈfeðə] – перо

feed (fed, fed) – кормить, откармливать

feed additive – кормовая добавка

feed efficiency [ɪˈfɪʃ(ə)nsi] – эффективность использования кормов

feed trough [trɒf] − кормушка

feed waste [weɪst] – непроизводительный расход кормов

feeder − кормушка

feedlot – откормочная площадка

female [ˈfiːmeɪl] – самка; женский, женского пола

fence – забор, изгородь

fertile [ˈfəːtaɪl] – плодовитый; фертильный

fertilizer [ˈfəːtɪlaɪzə] – удобрение

fibre [ˈfaɪbə] – клетчатка

field study – полевое исследование

filly [ˈfɪli] – кобылка

finding [ˈfaɪndɪŋ] – полученные данные

finished – откормленный

finishing period – заключительный период откорма

flavour [ˈfleɪvə] – вкус

flesh – мясо

flock – стадо; отара; стая

fluffy [ˈflʌfi] – пушистый

foal [fəʊl] – жеребенок

fodder – корм

forage [ˈfɒrɪdʒ] – грубый корм

forage [ˈfɒrɪdʒ] – добывать корм, рыскать в поисках еды; кормить грубыми кормами

forager [ˈfɒrɪdʒə] – пчела-сборщица, полевая пчела

foul [faʊl] − пачкать, загрязнять

frequently [ˈfriːkwəntli] – часто

fungus [ˈfʌŋɡəs] – грибок, *мн.* – fungi [ˈfʌŋɡiː]

[fur](https://en.wikipedia.org/wiki/Rabbit_hair) [fəː] – мех

**G**

gander [ˈɡændə] – гусак

gastric [ˈɡæstrɪk] juice – желудочный сок

gate – ворота

gather [ˈɡæðə] – собирать

generation [ˌdʒenəˈreɪʃ(ə)n] – поколение

gestation [dʒeˈsteɪʃ(ə)n] – беременность

girth [ɡəːθ] – подпруга

gland – железа

goat [ɡəʊt] – коза

goose [ɡuːs] – гусь, *мн.* – geese [giːs]

gosling [ˈɡɒzlɪŋ] – гусенок

government [ˈɡʌv(ə)nmənt] – правительство

grain [ɡreɪn] – зерно

grass – трава

graze [ɡreɪz] – пасти(сь)

grazier [ˈɡreɪzɪə] – животновод, выращивающий скот на подножном корме

greens – зелень

ground [ɡraʊnd] – измельченный, молотый

growing period – период выращивания

growth chart – график прироста

grunt [ɡrʌnt] – хрюкать

guard [ɡɑːd] – охранять

guideline [ˈɡaɪdlaɪn] – рекомендации

gut [ɡʌt] – пищеварительный тракт

**H**

hand – ладонь (единица измерения роста лошади, равная 10 см)

handle – ухаживать; обращаться, управлять

handler – человек, ухаживающий за лошадью; дрессировщик

haploid [ˈhæplɔɪd] – гаплоидный (*с одинарным набором хромосом*)

hardy – выносливый

harmful – вредный

hatch – высиживать (*цыплят*); выводить (*цыплят*) искусственно

hay – сено

heavy draft [drɑːft] – тяжеловоз

heifer [ˈhefə] – телка

height [haɪt] – рост; высота

hen – курица, несушка

herbs – разнотравье

hide – шкура

hog **–** свинья

hole [həʊl] − дыра; отверстие

honey [ˈhʌni] – мед

honey bee – пчела медоносная, пчела домашняя

[honeycomb](https://en.wikipedia.org/wiki/Honeycomb) [ˈhʌnɪkəʊm] – соты

hoof [huːf] – копыто, *мн.* – hoves [huːvz]

horse [hɔːs] – лошадь

horsemanship – искусство верховой езды

humid [ˈhjuːmɪd] – сырой, влажный

**I**

immediate [ɪˈmiːdɪət] – немедленный

impact [ˈɪmpækt] – воздействие, влияние

individual [ɪndɪˈvɪdʒʊ(ə)l] – особь

infested [ɪnˈfestɪd] – зараженный

inhabit [ɪnˈhæbɪt] – обитать

inherit [ɪnˈherɪt] – наследовать

input – расход, потребление

insect [ˈɪnsekt] – насекомое

insulation [ɪnsjʊˈleɪʃ(ə)n] – изоляция

intake [ˈɪnteɪk] – потребление

**J**

juvenile [ˈdʒuːvənaɪl] – молодая особь

**K**

kick – лягать(ся)

kid – козленок

kit – детеныш пушного зверя; *здесь*: крольчонок

kitten – детеныш пушного зверя; *здесь*: крольчонок

know-how – знание технологии

**L**

lamb [læm] – ягненок

lambing [ˈlamɪŋ] – ягнение, окот

landscape [ˈlæn(d)skeɪp] – ландшафт

lard – сало, свиной жир

larva [ˈlɑːvə] – личинка, *мн.* – larvae [ˈlɑːviː]

lay eggs – откладывать яйца

leaf [liːf] – лист, *мн.* – leaves

leakage [ˈliːkɪdʒ] – утечка; просачивание

leather [ˈleðə] – кожа

Leghorn [leˈɡɔːn] – леггорн (*высокопродуктивная порода домашних кур яичного направления*)

legume [ˈleɡjuːm] – бобовое растение

length [leŋθ] – длина

level [ˈlev(ə)l] – уровень

lifespan – продолжительность жизни

light – легкий

litter – подстилка

litter – помет, приплод

livestock [ˈlaɪvstɒk] – домашний скот

long-horned – длиннорогий

loss – потеря

lungs [lʌŋz] – легкие

lush [lʌʃ] – сочный

**M**

maintain [meɪnˈteɪn] – поддерживать, сохранять

make up for – компенсировать

male [meɪl] – самец; мужской, мужского пола

mammal – млекопитающее

management [ˈmænɪdʒm(ə)nt] – содержание (*животных*)

mane [meɪn] – грива

manure – помет, навоз

mare [meə] – кобыла

mated – спарившийся

mature [məˈtʃʊə] – зрелый

meadow [ˈmedoʊ] – луг

meal – мука

measure [ˈmeʒə] – измерять

milk curve [kəːv] – лактационная кривая

milk persistency [pəˈsɪstənsɪ] – продолжительность лактации

milk records – учёт надоев молока, учёт молочной продуктивности

mix – перемешивать

moisture [ˈmɔɪstʃə] – влага

mould [məʊld] – плесень

mount – лошадь для верховой езды

mouth – рот

mucus [ˈmjuːkəs] – слизь

mutton [ˈmʌt(ə)n] – баранина

**N**

nanny goat – *разг.* коза

neigh [neɪ] – ржать

nest **–** гнездо

neuter [ˈnjuːtə] – кастрировать

[New Zealand White](https://en.wikipedia.org/wiki/New_Zealand_rabbit) – новозеландская белая порода кроликов мясного направления

nibble – щипать (траву)

nitrogen-rich [ˈnaɪtrədʒ(ə)n rɪtʃ] – богатый азотом

nostril – ноздря

nourish [ˈnʌrɪʃ] – кормить

Nubian [ˈnjuːbɪən] – нубийская порода коз молочного направления

nurse [nəːs] – кормить

nutrient [ˈnjuːtrɪənt] – питательный элемент

nutrition [njʊˈtrɪʃ(ə)n] – питание; кормление

nutritional requirements [rɪˈkwaɪəm(ə)nts] – потребности в питательных элементах

nutritionist [njʊˈtrɪʃ(ə)nɪst] – специалист по кормлению

nutritious [njʊˈtrɪʃəs] – питательный

**O**

oats [əʊts] – овес

observe [əbˈzəːv] – следить, наблюдать

oestrus [ˈiːstrəs] – течка, половая охота

offspring – потомство; приплод

omasum [əʊˈmeɪsəm] – книжка

omnivore [ˈɒmnɪvɔː] – всеядное животное

orphan [ˈɔːf(ə)n] – сирота

output – выход продукции

overfeeding − перекармливание

ox – бык, *мн.* – oxen

**P**

paddock [ˈpædək] – загон

palatable [ˈpælətəb(ə)l] – вкусный

parasite [ˈpærəsaɪt] – паразит

pasture [ˈpɑːstʃə] – пастбище

pathogen [ˈpæθədʒ(ə)n] – патоген, патогенный, болезнетворный микроорганизм

peak milk – максимум лактации

peck – клевать

pecking order – ранг в иерархии стаи

pellet [ˈpelɪt] – гранула

[pelt](https://en.wikipedia.org/wiki/Fur) – шкурка (*в меховом производстве*)

pen – клетка

performance [pəˈfɔːm(ə)ns] – продуктивность

permanent [ˈpəːm(ə)nənt] – постоянный

permitted [pəˈmɪtɪd] – разрешенный

persistent [pəˈsɪst(ə)nt] – стойкий, устойчивый

personnel [ˌpəːsəˈnel] – персонал, рабочие фермы

pesticide [ˈpestɪsaɪd] – пестицид

pig – свинья

piglet – поросенок

pigsty [ˈpɪɡstaɪ] – свинарник

pollen [ˈpɒlən] – пыльца

pollination [ˌpɒlɪˈneɪʃən] – опыление

pollinator [ˈpɒlɪneɪtə] – опылитель

pony [ˈpəʊni] – пони

pork – свинина

position [pəˈzɪʃ(ə)n] − положение, место

poultry [ˈpəʊltri] – домашняя птица

pregnancy [ˈpreɡnənsi] – беременность

prevalence [ˈprev(ə)ləns] – преобладание; широкое распространение

profit – прибыль

prone to [prəʊn] – подверженный, склонный

propolis [ˈprɒp(ə)lɪs] – прополис, пчелиный клей

protein [ˈprəʊtiːn] – белок

pullet [ˈpʊlɪt] – молодая курица, молодка (*самка птицы первого года яйцекладки*)

**Q**

quality [ˈkwɒlɪti] – качество

queen bee – пчелиная матка, пчеломатка

quintuplets [ˈkwɪntjʊpləts] – пятеро ягнят, родившихся вместе

**R**

rabbit [ˈræbɪt] – кролик

raise [reɪz] – разводить

ram [ræm] – баран

raw [rɔː] – сырой; непереваренный

reach [riːtʃ] − дотянуться

rear [rɪə] – выращивать

recognise [ˈrekəɡnaɪz] – распознавать

records – учетные документы

relationship – взаимосвязь

remainder [rɪˈmeɪndə] – остаток

remove [rɪˈmuːv] – удалять

repair [rɪˈpeə] – чинить, ремонтировать

reproductive summary – репродуктивные показатели

research [rɪˈsəːtʃ] – исследование

respiratory [rɪˈspɪrət(ə)ri] – дыхательный, респираторный

response [rɪˈspɒns] – реакция

restrict [rɪˈstrɪkt] – ограничивать

result in – приводить к

reticulum [rɪˈtɪkjʊləm] – сетка

Rhode Island [ˈrəʊd ˌaɪlənd] Red – род-айлендская красная (*порода кур мясо-яичного направления*)

ride – ехать верхом

rodent [ˈrəʊd(ə)nt] – грызун

rolled [rəʊld] − плющеный

rooster [ˈruːstə] – петух

root – корень; корнеплод; откапывать

routine [ruːˈtiːn] – режим

royal jelly [ˌrɔɪəl ˈdʒeli] – маточное молочко

rumen [ˈruːmən] – рубец

ruminant – жвачное животное

**S**

Saanen [ˈsɑːnən] – зааненская порода короткошерстных коз молочного направления

saddle [ˈsæd(ə)l] – седло

sample [ˈsɑːmp(ə)l] – образец; проба

sandy [ˈsændi] – песчаный

scarce [skeəs] – скудный, недостаточный

scout bee – пчела-разведчица

scratch up – рыть землю, откапывать (*о курах*)

section – отдел

seed [siːd] – семя, семечко

senior [ˈsiːnɪə] – кролик в возрасте шести месяцев и старше; половозре-лое животное

sense – чувство

serving [ˈsəːvɪŋ] – порция

shearing [ˈʃɪərɪŋ] – стрижка (овец)

sheep [ʃiːp] – овца, *мн.* – sheep

shell – скорлупа

shelter – укрытие, убежище

shift – изменение

shoat [ʃəʊt] – поросенок после отъема (*массой от 27 до 72 кг*)

shoulder – плечо; лопатка

shrubs [ʃrʌbz] – кустарник

silage [ˈsaɪlɪdʒ] – силос

silo [ˈsaɪləʊ] – силосохранилище

similar – похожий

sinew [ˈsɪnjuː] – сухожилие

single birth – ягненок, который родился один

sire [ˈsaɪə] – (жеребец-)производитель

site – место, участок

skill – навык, умение

slats [slæts] – планчатый пол

smell – обоняние

snood [snuːd] – серёжка (*мясистый придаток над клювом у индюка*)

snout – рыло

soak up – впитывать

soften – размягчать

solution [səˈluːʃ(ə)n] – решение

source [sɔːs] – источник

sow [saʊ] – свиноматка

soybean [ˈsɔɪbiːn] – соя

species [ˈspiːʃiːz]– вид

spermatheca – сперматека, семяприемник

squeal [skwiːl] – визжать, верещать

squeeze [skwiːz] out – выжимать

stable – стойло; конюшня

stage [steɪdʒ] – стадия

stall [stɔːl] – конюшня

stallion [ˈstaljən] – жеребец

staple [ˈsteɪp(ə)l] – основной

steer [stɪə] – кастрированный бык

stirrup [ˈstɪrəp] – стремя

stockmanship [ˈstɒkmənʃɪp] – правила ухода за птицей *или* скотом

stomach [ˈstʌmək] – желудок

strain – порода

straw [strɔː] – солома

study – исследование

sucker [ˈsʌkə] – сосунок

supply [səˈplaɪ] – снабжать, поставлять

support [səˈpɔːt] – поддерживать

surface [ˈsəːfɪs] – поверхность

survey [ˈsəːveɪ] – исследование

survive – выжить

swallow [ˈswɒləʊ] – глотать

swarm [swɔːm] – рой

swine – свинья, *мн.* – swine

**T**

tail – хвост

tame – приручать, одомашнивать

technique [tekˈniːk] – метод

thistle [ˈθɪs(ə)l] – чертополох

thorough [ˈθʌrə] – тщательный

timothy [ˈtɪməθi] – тимофеевка

toe [təʊ] – палец

Toggenburg [ˈtɒɡənˌbəːɡ] – тоггенбург (порода коз молочного направления)

trace [treɪs] – след; незначительное количество

trait [treɪt] – признак

treat [triːt] – лакомство

treat [triːt] – обрабатывать; лечить

treatment [ˈtriːtmənt] – обработка; лечение

triplets – тройня

turn up – оказываться

turnip [ˈtəːnɪp] – турнепс, репа

twins – двойня

**U**

udder [ˈʌdə] – вымя

underweight [ˌʌndəˈweɪt] – имеющий недовес

urine [ˈjʊərɪn] – моча

urine [ˈjʊərɪn] – моча

**V**

[vaccine](https://en.wikipedia.org/wiki/Vaccine) [ˈvæksiːn] – вакцина

valuable [ˈvaljʊb(ə)l] – ценный

venom [ˈvenəm] – яд

visually [ˈvɪʒuəli] – зрительно, визуально

volatile fatty acid [ˈvɒlətaɪl ˌfæti ˈæsɪd] – летучая жирная кислота

**W**

wallow [ˈwɒləʊ] – валяться, кататься

wastage [ˈweɪstɪdʒ] – потери; непроизводительный расход

wattle [ˈwɒt(ə)l] – бородка (*индюка*)

wean [wiːn] – отлучать (от матки), отнимать

webbed [webd] – перепончатый

weed [wiːd] – сорняк

weigh [weɪ] – весить

whinny [ˈwɪni] – тихо ржать

whiskers [ˈwɪskəz] – усы

wing – крыло

withstand [wɪðˈstænd] – выдерживать, выносить

wool – шерсть

worker bee – рабочая пчела

worm [wəːm] – червь

**Y**

yolk [jəʊk] – желток

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**СОДЕРЖАНИЕ**

Введение………………………………………………………………………………………..3

Unit1 . Cattle...…………………………………………………………..................................4

Unit 2. Horses……………………...………………...………................................................13

Unit 3. Goats………………………………………………………………………………....25

Unit 4. Sheep………………………………………………………………………………...35

Unit 5. Pigs…………………………………………..............................................................45

Unit 6. Poultry………………………………………………………….…………………....55

Unit 7. Rabbits…………………………………………………………………….………....39

Unit 8. Bees………………………………………………………….……………………....74

Farm Animals Quiz.....................................................................................................................85

Vocabulary ……………………………………………………………….................................90

Литература ………………………………………………………………….………….……104

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