

Вінницький державний аграрний університет

**МЕТОДИЧНІ ВКАЗІВКИ ТА ЗАВДАННЯ ДЛЯ
САМОСТІЙНОЇ РОБОТИ**

**для студентів
факультету технології виробництва та переробки продукції тваринництва**

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Укладачі: к.ф.н., доцент Тимкова В.А., ст. викладачі Черниш Л.А., Нечипайло А.Б.

Методичні вказівки та завдання для самостійної роботи для студентів заочного відділення факультету технології виробництва та переробки продукції тваринництва Вінницького державного аграрного університету.

Практичне володіння іноземними мовами набуває великого значення для спеціалістів технологічних спеціальностей. Формування навичок усного спілкування та основ перекладу фахової літератури є метою цього посібника. Посібник складається із 3-х частин, практичних завдань у трьох варіантах, граматичного довідника у таблицях, текстів для домашнього читання та письмового перекладу, методичних вказівок щодо полегшення самостійної роботи студентів заочної форми навчання.

Посібник розрахований для студентів факультету технології виробництва та переробки продукції тваринництва аграрних вузів.

Рецензенти: к.п.н., доцент Дровозюк Л.М.
к.п.н., доцент Гнатенко В.Д.

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Міністерство аграрної політики України

Англійська мова

Програма, методичні вказівки та завдання для самостійної роботи для студентів-заочників вищих учбових закладів (технологічні спеціальності)

Програма

Ціль навчання. При заочному навчанні в немовному вузі оволодіння англійською мовою означає уміння самостійно перекладати зі словником літературу на англійській мові за профілем вузу для того, щоб на основі надбаних у вузі знань отримувати потрібну для роботи інформацію.

А. Лексика англійської мови

За повний курс навчання студент надбає словниковий запас 900-1000 лексичних одиниць (слів та словосполучень). Студенту необхідно засвоїти явище конверсії та навчитися за допомогою формальних ознак – ключових слів та місця слова в реченні визначати якою частиною слова є однакові по написанню слова. Студент повинен оволодіти практичним мінімумом словотворчих засобів англійської мови і на їх основі встановити значення похідного слова по відомому кореневому слові.

Б. Граматика Англійської мови

Для оволодіння навичками читання оригінальної науково-технічної літератури на англійській мові та для перекладу з англійської мови на українську, студент повинен протягом курсу навчання вивчити головні граматичні форми англійської мови.

Морфологія

- **Іменник.** Артиклі (означений та неозначений) як ознаки іменника. Прийменники як показники відмінкових форм. Закінчення s – показник множини іменників. Закінчення ‘s, s’ як ознака присвійного відмінку. Утворення множини шляхом зміни кореневої голосної. Множина деяких іменників латинського та грецького походження.

- **Прикметник та прислівник.** Ступеневі порівняння
- **Числівник:** кількісні, порядкові, читання дат, годин, номерів телефонів.
- **Займенники:** особові, присвійні, зворотні, питальні. Неозначені займенники *some, any*, заперечний займенник *no* та їх похідні.
- **Дієслово** – частка *to* – показник неозначеної форми. Утворення часових груп *Indefinite, Continuous, Perfect*. Активний та пасивний стан. Модальні дієслова та їх еквіваленти. Безособові форми дієслова *Participle I* та *Participle II*.

Синтаксис

Просте розповсюджене речення. Прямий порядок слів розповідного речення в стверджувальній та заперечній формах. Зворотний порядок слів у питальних реченнях. Складнопідрядні речення.

Вимоги на заліках та екзаменах.

Заліки та екзамени проводяться згідно з навчальним планом вузу.

Залік. До заліку допускаються студенти, що виконали всі усні та письмові роботи, які отримали залік з аудиторних контрольних робіт та здали норми перекладу текстів для додаткового читання.

Для отримання заліку студент повинен читати та перекладати тексти, що вивчені протягом року, а також написати аудиторну контрольну роботу.

Екзамен. До екзамену з англійської мови допускаються студенти, які здали заліки за попередні курси, отримали залік з аудиторної контрольної роботи та здали норми читання. Щоб здати екзамен студент повинен:

- уміти правильно прочитати і зрозуміти навчальні тексти;
- уміти прочитати і перекласти за допомогою словника незнайомий текст за фахом.

Методичні вказівки

Види робіт:

- переклад тексту;
 - виписування слів та відбір необхідного з контексту значення слова;
 - читання тексту з розумінням загального змісту прочитаного.
1. Працюючи над текстом виписуйте та запам'ятовуйте в першу чергу ключові слова.
 2. Для більш ефективної роботи з словником необхідно знати англійський алфавіт, а також ознайомитися з побудовою даного словника і з прийнятою у ньому системою умовних позначень.

3. Перед тим як виписувати слово та шукати його значення в англійсько-українському словнику потрібно установити якою частиною мови воно являється.
4. Виписуючи слова, відкидайте закінчення і знаходьте словникову форму слова: для іменників форму загального відмінка однини; для прикметників – форму ступеня; для дієслів – неозначену форму.
5. Пам'ятайте, що в кожній мові слово може мати кілька значень. Відбираючи у словнику значення потрібно звертати увагу на його граматичну функцію і також значення у даному контексті.

Слід пам'ятати також деякі особливості перекладу з англійської мови на рідну:

- в текстах наукового характеру англійські словосполучення часто передаються одним словом:
raw materials – сировина
animal husbandry – зоотехніка
construction works – будівництво
- сполучення 3-х, 4-х слів може бути передано двома-трьома словами:
poultry processing – технологія переробки продуктів птахівництва
- інколи при перекладі з англійської мови на рідну необхідно застосовувати описовий переклад і передавати значення англійського слова за допомогою кількох українських слів:
characteristics – характерні особливості (ознаки)
necessities – предмети першої необхідності
output – випуск продукції

CHAPTER I

PART I

Pre-text exercises

I. Прочитайте слова, згадайте про їх значення, використовуючи аналогію в рідній мові.

Muscles, mobility, characteristic, stimulate, primitive, reproduction, botanist, classify, amphibians, reptiles, domestic, circus, evolution.

II. Зверніть увагу на вимову даних слів, напишіть до них транскрипцію, користуючись словником.

<i>Word</i>	<i>Transcription</i>	<i>Word</i>	<i>Transcription</i>
fungi		field	
muscle		fowl	
sponge		circus	
reptile		manure	
rough		yield	

III. а) Назвіть англійською мовою домашніх тварин, яких ви знаєте;

б) Назвіть англійською мовою диких тварин, яких ви знаєте.

ANIMALS

Animals together with plants and fungi make up the world multicellular organisms/ unlike the other two kingdoms of multicellular organisms, animals have developed muscles and hence mobility, a characteristic that has stimulated the further development of tissues and organ system.

The border-line between primitive animals and plants is quite indefinite. For example, the sponges, which lack muscles tissues, were long considered to be plants. Their small movements were noticed in 1765, after that the animal nature of sponges slowly came to be recognized.

Animals represent three quarters or more of the species on the Earth, a diversity that reflects the flexibility in feeding, defense, and reproduction which mobility gives them.

Botanists classify all known animals in twenty large groups. The animals we see most often are vertebrates, or backboned animals. This large group is divided into smaller ones. Five main groups of vertebrates are amphibians, reptiles, fish, mammals, and birds. Young amphibians live in water. When they become full-grown,

most amphibians develop lungs and legs and can live on land. Snakes, lizards, turtles and other reptiles breathe with lungs during the whole life. They have rough, scaly skins. Fish breathe with gills, and have fins instead of legs. Amphibians, reptiles, and fish are cold-blooded animals. That is, the temperature inside their bodies depends on the temperature outside. Mammals, such as cats, deer, mice and monkeys have hair or fur. Female mammals have milk glands from which they feed milk to their young. Birds are the only animals with feathers. Mammals and birds are warm-blooded animals. That is, the temperature inside their bodies always stays about the same.

Today nearly half of the total food supply of man is contributed by animals. The list of food products of animal origin includes: meat from domestic and wild animals, fowl and eggs from domestic and wild birds, fish of many kinds, and milk from cows, goats and sheep.

Animals contribute to clothing for man in the form of wool, leather, hair and fur. Horses, mules, oxen, and other animals have been used as sources of power for different purposes. Domestic animals, notably the horse and the dog are used extensively in sports. The animals in the Zoo and circus are a source of recreation for people of different ages.

Manure produced in livestock farming enriches the soil and increase crop product yields.

After-text exercises

I. Знайдіть зайве слово.

- a) cow, monkey, sheep, horse;
- b) frog, crocodile, lizard, deer, turtle;
- c) egg, meat, leather, water, fur, milk.

II. До іменників у однині (A) підберіть відповідну форму множини (B).

A	B
man	mice
woman	feet
child	women
mouse	geese
tooth	men
swine	oxen
deer	teeth
ox	sheep
sheep	swine
foot	deer

goose	children
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III. Розподіліть наведені слова за групами в таблиці.

Frog, snake, lizard, toad, deer, wolf, cow, sheep, elephant, fox, raccoon, squirrel, skunk, beaver, salmon, trout, deer, otter, seagull, rat, ox, whale, mouse, mole, hawk, rabbit, turkey, monkey, goat, horse, carp, hen, goose, swine, crocodile.

<i>Amphibians</i>	<i>Reptiles</i>	<i>Fish</i>	<i>Mammals</i>	<i>Birds</i>

IV. Утворіть множинну іменників та перекладіть речення.

1. (*Fish*) and some other animals keep on growing all their life.
2. Some animals have a higher percentage of certain elements in their (*body*), for example, some (*sponge*) have much silicon in them.
3. As a young frog grows, it changes from a tadpole, with (*gill*) and a tail for living in water, to a frog, with (*lung*) and (*leg*) for living on land.
4. (*Cow, sheep, deer, elephant*) and many kinds of (*fish*) feed on plants.
5. We still get (*fur*) from some of the wild animals such as (*fox, raccoon, squirrel, mink*).
6. We also get fur from water animals such as (*beaver, otter*) and (*seal*).
7. (*Bird, mouse, mole, skunk*) and (*snake*) eat harmful (*insect*). So do (*frog, toad*) and (*fish*).
8. (*Fish*) and (*whale*) supply valuable oils.
9. (*Hawk, owl*) and (*snake*) kill (*mouse, rat, rabbit*) and similar animals that damage crop.
10. Many believe that we should take steps to preserve the (*species*) that are left, even those that are of no immediate use to us, and even those that compete with us for territory or food supply.
11. All animals can act when (*stimulus*) comes to them from the surroundings.

V. Заповніть пропуски відповідними прийменниками.

- a. Every year billions _____ new animals and plants are produced.

- b. In almost every community, each kind of living thing depends _____ many other kinds in various ways.
- c. We can prevent further damage and make better use _____ the wildlife we still have.
- d. Biologist tested the air that animals breathe _____ and _____.
- e. A tiny animal known as amoeba takes in food _____ surrounding with its whole body.
- f. Water makes _____ about two thirds of the weight of most animals and plants.
- g. Rats are mammals, so many of their physical reaction are similar _____ those of people.
- h. Nearly one fifth _____ our body is carbon.
- i. Animals and plants depend _____ each other _____ food and materials.
- k. Grass provides food for millions of cattle and sheep _____ which we get meat and materials _____ clothing.
- l. The animals grow until they are _____ same size as their parents.
- m. A stimulus is whatever makes thing act and respond _____ it.

VI. Підберіть українські еквіваленти до англійських слів та словосполучень.

<i>English</i>	<i>Ukrainian</i>
1. unlike the other two groups	a) широко використовувати
2. further development	b) м'ясо свійських тварин
3. lack muscle tissue	c) теплокровні тварини
4. breathe with lungs	d) недостатність мускульної тканини
5. female mammals	e) складатися
6. milk glands	f) подальший розвиток
7. the young	g) самки ссавців
8. stay about the same	h) на відміну від інших двох груп
9. food supply	i) залишатися без змін
10. warm-blooded animals	j) тваринного походження
11. meat from domestic animals	k) дихати легенями
12. enrich the soil	l) молодняк
13. be used extensively	m) гній
14. wake up	n) постачати їжу
15. manure	o) збагачувати землю

16. animal origin	p) молочні залози
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VII. Підберіть термін до визначення.

Визначення	Термін
The only animals with feather.	
Animals with the same temperature inside their body.	
A group of cells that can do certain things as a group.	
The process by which new living things are produced.	
A scientist who studies living things.	
Tissues of various kinds often produced together.	
Animals with the temperature inside their bodies which depends on the temperature outside.	

VIII. Розкрийте дужки, вживаючи дієслово у необхідній видо-часовій формі. Речення перекладіть.

- People (*use*) such animals as horse, mules, and oxen as sources of power for a long time.
- Zoos (*save*) many disappearing animal species lately.
- At the present stage of development the number of animal species in danger (*increase*) rapidly.
- French agriculturalists (*carry out*) the domestication of the rabbit from the 6th to the 10th centuries AD.

IX. Утворіть пасивний стан дієслів та перекладіть речення.

- Humans exhibit wild and domesticated animals in zoological gardens.
- People keep marine invertebrates, fishes, and marine mammals in aquariums.
- The livestock experts have done a great deal of work on improving our cattle breeds.
- People raise some breeds of sheep generally for wool production.

X. Чи згодні ви з твердженнями? Погодьтеся з ними чи виправте їх, вживаючи відповідні мовленнєві зразки з довідки.

Yes, that's (quite) right.	Sorry, it isn't right.	It's perfectly correct.
I'm afraid it's wrong.	Quite right.	I don't think so. Yes, I agree with you.
I'm not sure.	Exactly so.	It isn't so.

- a. Mammals such as deer, mice, rats, moles, and monkeys have no hair or fur.
- b. Man gets meat from domestic and wild animals, fowl and eggs from domestic and wild birds, fish of many kinds, and milk from cows, goats and sheep.
- c. Manure produced in livestock farming doesn't enrich the soil and increase crop yields.
- d. Fish, mammals, and birds are not vertebrates or backboned animals.

XI. Перекладіть речення англійською мовою.

- a. Губчаті належать до світу примітивних багатоклітинних організмів.
- b. Температура тіла холонокровних тварин – ящірок, черепах та гадюк – залежить від температури середовища.
- c. Дикі свині були завезені до північної Америки після 1500 року.
- d. Починаючи з моменту заснування нашої держави скотарство відіграє важливу роль у її національній економіці.
- e. Перші ветеринарні школи у Європі з'явилися у 18 столітті.
- f. Тварини складають приблизно дві третини істот, що мешкають на Землі.

Позааудиторна робота

I. Прочитайте слова, звертаючи увагу на німі приголосні.

Muscles, known, often, when, which, whole, half, who

II. Утворіть однину іменників та перекладіть їх. Знайдіть слова, що відрізняються від інших за типом творення.

<i>Множина</i>	<i>Однина</i>
shelves	
wives	
wolves	
loaves	
roofs	
knives	
lives	
leaves	
halves	

III. а) Утворіть іменники від прикметників за допомогою суфікса:

Прикметник	Іменник
active	activity
diverse	
flexible	
mobile	
real	
formal	
legal	

б) Утворіть прислівники від прикметників за допомогою суфікса – ly:

Прикметник	Прислівник
slow	slowly
large	
natural	
extensive	
near	
great	
real	
careful	
special	
sure	
most	
chemical	

в) Утворіть від поданих слів нові частини мови за допомогою лексичної одиниці – multi:

national	multinational
cellular	
coloured	
channel	
purpose	
millionaire	
vitamin	
lateral	

IV. Здогадайтеся про значення слів, використовуючи аналогію в рідній мові.

Characteristic, stimuli, organism, system, primitive, nature, botanist, classify, group, amphibian, temperature, products, form

V. Перекладіть речення за зразком. Зверніть увагу на переклад інфінітиву.

Example: To produce work animals is the main aim of animal husbandry.

Розведення робочих тварин є головною метою тваринництва.

1. To increase the agricultural productivity is the eternal aspiration of each farmer.
2. To obtain meat and skin was the principal aim of cattle breeding in ancient times.
3. To improve the services of the profession of a veterinary doctor is the purpose of veterinary associations all over the world.
4. To develop the agriculture under the market conditions is the urgent task during the revival of Ukrainian economy.
5. To pump the blood out through the body is the function of the heart.

Example: Many centuries ago one of the principal aims of cattle breeding was to produce work animals.

Багато років тому одним із важливих напрямків у скотарстві було розведення робочих тварин.

1. One of the most important tasks of the economic policy of our country is to maintain the welfare of people living in Ukraine.
2. The purpose of training research farms organized in Ukraine is to create a basis for practical training specialists in the field of agriculture and research work.
3. One of the main educational goals of the National Agricultural University is to develop each student's intellectual activity.
4. One of the functions of plasma is to maintain blood pressure.

Example: In the course of time the horse began to be used as means of transport.

З часом коня почали використовувати як транспортний засіб.

1. People have always tried to capture the beauty of the horse – in poetry, drawing, and sculpture.
2. Bee-hives have to be constructed in a proper way.
3. Animal diseases must be controlled or prevented by veterinary doctors.
4. When manure is excreted bacteria begin to decompose it.

Example: *Human study animals to learn about themselves.*

Люди вивчають тварин для того, щоб вивчити себе.

1. To get electricity, farmers in a great majority of countries formed cooperatives that build their own generating stations.
2. The domesticated animals are created by human labour to meet specific requirements.
3. To conserve wild animals and plants, we must also conserve or restore their natural habitats.
4. After traveling through the lungs, the blood in vertebrates returns to the heart to be pumped out again through the body.

PART II

Pre-text exercises

I. Прочитайте слова. Здогадайтеся про їх значення, використовуючи аналогію в рідній мові.

Agronomist, Asia, Latin America, deficit, expansion, synthesis, predominate, pathologist, entomologist, pest, hybrid, herbicide.

II. Користуючись словником, прочитайте подані слова, запам'ятайте їх вимову.

confront	entomologist	lamb
augment	pathologist	processor
synthesis	supplement	wholesale
yeast	herbicide	bovine

III. Користуючись словником, дайте визначення таких слів:

Livestock, bovine, breed (draft, meat-draft, meat-dairy, dairy-draft, meat-dairy draft, dairy).

CROP PRODUCTION AND ANIMAL HUSBANDRY

Underdeveloped countries of Asia, Africa, and Latin America are now in deficit position with respect to food production for their own population. World food production can be augmented by expansion of the cultivated land area or by increased yields on present agricultural land. Aside from conventional agricultural means, food supplies also may be increased by the synthesis of foods as well as by the culture of certain lower plant forms such as yeast.

The old art of crop production still predominates in farm practice throughout the world. Plant pathologists and entomologists have found ways to control plant diseases and insect pests more effectively. Chemists and agronomists have found supplements for the manure and ashes formerly used for fertilizers. Rotations perhaps are slightly improved. Many new crop hybrids and varieties (cultivars) have been developed. The control of weeds with herbicides was realized in the 20th century.

Livestock production is an important segment of agriculture. It is concerned with animals – cattle, calves, hogs, sheep, lamb etc. This is one of the most complex sectors of the food industry. Ranchers, farmers, feeders, meat packers, processors, wholesalers, and retailers are interrelated through a complex chain of markets involving a large number of marketing activities, functions and institutions.

Cattle are domestic bovine farm animals that are raised for their meat and milk, for their hides, or for draft purposes. Many contemporary breeds of cattle are of recent origin. The definition of a breed is difficult and inexplicit, although the term is commonly used and, in practice, well understood. It may be used generally to connote animals that have been selectively bred for a long time so as to possess distinctive identity in color, size, confirmation and function, and these or other distinguishing characteristics are perpetuated in their progeny.

There are about 277 cattle breeds in the world, with 33 generally classified as beef breeds, 18 as draft breeds, and 39 as meat-draft, 54 as meat-dairy, 21 as dairy draft, 61 as meat-dairy-draft, and 51 as dairy breeds. Most of these are quite limited in distribution and importance.

An average farm in Great Britain has 1600 heads of cattle, one third of which are cows. In addition, there are 650 pigs, 350 sheep and goats, and over 6000 birds. Virtually every farm has cattle (both beef and dairy), and nearly 90% of the farms raise pigs- Sheep and goats, however, are raised only by 30% of the farms and poultry by less than 20% of the farms. Some of the poultry farms are relatively specialized operations, with over 150,000 birds each. Nearly 85% of the farms produce their own feed, and the rest produce at least half of their feed requirements. Almost 90% of the managers intend to increase feed production as a means of improving livestock profitability.

After-text exercises

I. До слів та словосполучень у стовпчику А підберіть еквіваленти зі слів у стовпчику В.

A	B
generally classified	поліпшені методи культивування
doubtless	займатися
(to) be confronted with	які раніше використовувалися, як

formerly used	обмежений за розповсюдженням та важливістю
(to) be limited in distribution and importance	як і
as well as	загально класифіковані
improved cultural methods	домашні тварини
(to) be concerned with	стикатися (з)
domestic animals	без сумніву

II. Поділіть слова на групи та заповніть таблицю.

<i>Domestic Animals</i>	<i>Wild Animals</i>	<i>Poultry</i>

Donkey, bear, peacock, cock, fox, pig, duck, elephant, sheep, goat, goose, wolf, dog, pigeon, cat, cow, giraffe, calf.

III. Утворіть можливі словосполучення з поданих слів та перекладіть їх.

(to) continue to grow	made by primitive farmers
fixed-land	new knowledge
planting and cultivating	for their own nations
spread	identity
acquiring	various crops
bovine	characteristics
observations and	at an accelerated rate
distinctive	farm animals
distinguishing	economies
food production	the knowledge

IV. Вставте модальні дієслова.

<i>can</i>	<i>could</i>	<i>may</i>	<i>might</i>	<i>should</i>	<i>must</i>	<i>have to</i>
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Agronomists _____ deal with the problem of providing food fore a world population that continues to grow at an accelerated rate. World food production _____ be augmented by expansion of the cultivated land area or by increased yields on present agricultural land. Aside from conventional agricultural means, food supplies also _____ be increased by the synthesis of foods as well as by culture of certain lower plant forms.

V. Трансформуйте стверджувальні речення в питальні.

- Zoologists have found ways to control cattle diseases more effectively.

2. The control of weeds with herbicides was realized in the 20th century.
3. Improved cultural methods doubtlessly followed observations made by primitive farmers.
4. Chemists and agronomists are working to find supplements for the manure and ashes formerly used for fertilizers.
5. They found better crops in spots where manure, ashes or broken limestone had been dropped.
6. Many new breeds and varieties of cattle have been developed.
7. These ideas were handed down through the generations.

VI. Згрупуйте слова за частинами мови:

Breed, importance, fifteen, increasingly, determine, productive, widespread, respond, seven, soil, materially, suffer, solution, environmental, minimize, effective, produce, twenty, easy, knowledge, destroy, scientific.

<i>Іменник</i>	<i>Прикметник</i>	<i>Числівник</i>	<i>Прислівник</i>

VII. Здогадайтеся про значення слів, використовуючи аналогію в рідній мові.

Operation, cultivation, production, individual, private, sector, region, process, intensively, veterinary, vaccination, standard, profession.

VIII. Розкрийте дужки, вживаючи дієслово у необхідній видо-часовій формі. Речення перекладіть.

1. Many years ago animals (*produce*) a small amount of milk.
2. Milk yields (*increase*) by the next year.
3. The dogs (*be*) the animals of major importance to humans for many centuries.
4. The representatives of the animal kingdom (*belong*) to the world of the multicellular organisms.

IX. Утворіть пасивний стан дієслів та перекладіть речення.

1. Early views of religion and magic reflected the human concern with animal diseases.
2. People domesticated the great majority of animals in prehistoric times.
3. Strict seasonal reproduction characterizes the wild ancestors of domesticated animals.
4. Scientists divide the class of vertebrates into several groups.

X. Чи згодні ви з твердженнями? Погодьтеся з ними чи виправте їх, вживаючи відповідні мовленнєві зразки з довідки.

Yes, that's (quite) right.	Sorry, it isn't right.	It's perfectly correct.
I'm afraid it's wrong.	Quite right.	I don't think so. Yes, I agree with you.
I'm not sure.	Exactly so.	It isn't so.

1. Animals, plants, and fungi make up the world of multi-cellular organisms.
2. The borderline between primitive animals and plants is quite definite.
3. Snakes, lizards, turtles and other reptiles breathe with lungs during the whole life.
4. Amphibians, reptiles, and fish are warm-blooded animals.

XI. Перекладіть речення англійською мовою.

1. Собака завжди відігравала велику роль у житті людини.
2. Протягом тривалого часу вчені не відрізняли губчатих від рослин.
3. У цьому році з'явилася нова порода корів.
4. Людина використовує деяких тварин з різною метою протягом багатьох віків.
5. Відомо, що корова виробляє найбільшу кількість молока протягом 4-х місяців після народження теля.
6. Ссавці годують своє потомство молоком.

Позааудиторна робота

I. Прочитайте слова за допомогою транскрипції.

Слово	Транскрипція	Слово	Транскрипція
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toads		amphibian	
breathe		gills	
reptiles		fowl	
sponges		rough	
aquariums		leather	
deer		feathers	

II. Знайдіть іменник, який не змінює –у на –і у множині:

Lady, family, monkey, city, baby

б) Знайдіть іменник, який утворює множину за допомогою суфікса – es:

Negro, piano, potato, kilo, photo

с) Яке слово зайве?

Species, branches, series, means

III. Згрупуйте слова за частинами мови:

Organism, two, mobility, development, primitive, movement, nature, slowly, flexibility, three-quarters, diversity, defense, reproduction, botanist, more, twenty, smaller, temperature, capability, nearly, total, different, notably, extensively, recreation, evolution.

<i>Іменник</i>	<i>Прикметник</i>	<i>Числівник</i>	<i>Прислівник</i>

IV. Перекладіть речення за зразком. Зверніть увагу на переклад інфінітиву.

Example: *To produce work animals is the main aim of animal husbandry.*

Розведення робочих тварин є головною метою тваринництва.

- To treat the major animal diseases is the main task of veterinary surgeons.
- To form student's ability to think logically is one of the most important tasks of a teacher.
- To protect the environment from pollution and destruction is the goal of the 'Green Peace' organization.

4. To protect forest and its wildlife is the holy duty of every human being.
5. To protect animals from diseases is very important in modern conditions.

Example: *Many centuries ago one of the principal aims of cattle breeding was to produce work animals.*

Багато років тому одним із важливих напрямків у скотарстві було розведення робочих тварин.

1. The intention of our government is to bring about a gradual privatization of farming.
2. One of the main goals of laws passed by the Parliament of Ukraine was to protect fish and other animals of the country.
3. The primary purpose of the horse domestication was to obtain meat and skin.
4. The main scientific research work of the 18th century was to investigate the difference and sponges.

Example: *In the course of time the horse began to be used as means of transport.*

З часом коня почали використовувати як транспортній засіб.

1. Man began to domesticate animals at the beginning of human civilization.
2. In 1837 the English agriculturalist John Lawes began to experiment with the effects of manure on plants and crops.
3. After gaining the independence agriculture began to play a vital role in the national economy in our country.
4. Land patterns reflect the prior system's pressure to keep land in intensive cultivation, while optimally some of the land should be managed less intensively.

Example: *Human study animals to learn about themselves.*

Люди вивчають тварин для того, щоб вивчити себе.

1. Scientists often use insects to investigate different physiological processes.
2. Many animal species eat plants and other animals to get food they need.
3. Live stock-breeders employ different modern methods to obtain new breeds of cattle.

4. Veterinaries use different medicines to cure animal diseases.

CHAPTER II

Additional reading

UKRAINIAN AGRICULTURE: PHYSICAL CONDITIONS

With one-third of the world's richest chernozems, Ukraine occupies a leading place among the countries by proportion of high-quality fertile soil. Virtually 30% of all agricultural and arable land in Ukraine is chernozem, and an additional 40% are other highly fertile soils.

Agricultural land accounts for nearly 70% of the total area in Ukraine. Of this, arable land represents 55% of the total area, pasture 9%, hayland 4%, and orchards and plantations less than 2%. The terrain in Ukraine is highly favorable for agriculture: nearly 60% of the agricultural land is practically flat and another third has slopes between 1° and 3°. Thus, nearly 90% of arable land in Ukraine is suitable for all agricultural crops, and only the remaining 10% with slopes in excess of 3° is difficult to cultivate. The use of these lands can be changed to pasture, thus improving soil protection without affecting output. Land patterns reflect the prior system's pressure to keep land in intensive cultivation, while optimally some of the land should be managed less intensively. Ukrainian soil experts argue that less productive arable lands should be laid idle and converted to pasture, while low-productivity pastures should be afforested or flooded to reduce soil erosion.

The average land endowment in Ukraine is 0.80 ha of agricultural land or 0.64 ha of arable land per person. This figure, however, shows a considerable variability over regions and also over time, reflecting differences in population density and migration patterns. In the Western provinces of Ivano-Frankovsk, Chernivtsi, Lviv, and Uzhhorod (Transcarpathia), in the industrial heartland of Dnipropetrovsk, Donetsk, and Luhansk, and also in the Crimea the per-capita land endowment is much below average, whereas the Eastern and Central provinces of Kirovohrad, Kherson, Mykolaiv, Poltava, Sumy, and Chernihiv are characterized by arable land endowments of over 1 ha per person. Overall, the land endowment per person decreased substantially between 1960 and 1993 due to population growth (the arable land decreased from 0.80 ha per person in 1960 to 0.64 ha in 1993). This process, however, also differed across provinces. In the relatively less populated provinces of the Crimea, Kherson, Mykolaiv, and Zaporizhzhia the decrease in land endowment was much more pronounced because of immigration, whereas in Kiev and Chernihiv provinces land endowment actually increased because of emigration.

AGRICULTURAL PRODUCTION

Agricultural production in Ukraine, as in the rest of the Soviet Union, was organized in two types of centrally controlled large-scale socialized farms, the

collective kolkhozes and the state-owned farms. Private farming and private services were virtually nonexistent after 1932 in the Central and Eastern provinces of Ukraine (private farming in the Western provinces was eliminated later, following their annexation after World War II). The only concession to individual initiative was the small subsidiary household plots of rural residents and garden and vegetable patches cultivated by urban workers outside the cities. The output of these plots belonged to the individual, although the land was state-owned-

Despite their small size, these individual subsidiary farms have always been an important part of agricultural production in Ukraine, traditionally contributing well over 25% of gross agricultural product.

The establishment of full-fledged private farming represented by independent family farms and agricultural cooperatives outside the kolkhoz/sovkhov system has been made possible only by recent legislation passed in 1991 and 1992. The period after 1990 also reveals a significant increase in the contribution of the private and household sector to agricultural product in Ukraine, mainly due to distribution of additional land for augmentation of subsidiary household plots (and to a certain extent also to the establishment of new private farms).

Agricultural production in Ukraine is mainly concentrated in the central and southern agroclimatic zones (steppe and forest-steppe), which account for over 80% of agricultural land in Ukraine and where all the Ukrainian chernozem is located. These two regions accordingly produce over 80% of Ukrainian grain, meat, and milk production. The southern steppe region produces over three quarters of the sunflower harvest and nearly the entire grape harvest of Ukraine. The central forest-steppe region specializes in sugar beet and sugar processing: it produces over 70% of sugar beet and processed sugar in Ukraine. The relatively small northern mixed-forest (*polesye*) region has less fertile soils (sod-podzolic and sandy loam), a high concentration of marshlands (5% of all Ukrainian marshes,) and is heavily afforested (forests cover 30% of the area). The main crops in this region are flax (90% of Ukrainian production) and potatoes.

Ukrainian agriculture has been traditionally characterized by an evenly balanced mix of crop and livestock production, with a slight bias in favor of livestock products (around 45% crops vs. 55% livestock, except in 1993, when the balance shifted to crops). The emphasis on livestock is reflected in land use: fully 38% of the sown area in 1993 was under feed crops and another 45% was under grain, much of which is also used for feed (state purchases of grain are on average 30% of the quantity produced, and the rest is consumed on farm). The remaining areas are evenly divided between technical crops (sugar beet, sunflower, and very small areas under flax) and potatoes and vegetables.

UKRAINE: THE COUNTRY AND ITS AGRICULTURE

Ukraine is the second most populous and third largest in area (after Russia and Kazakhstan) among the former Soviet republics. In its occupied territory - over 600,000 square kilometers - Ukraine exceeds all European states except the Russian Federation, and the population – 48 m people - is inferior only to that of Germany, Great Britain, Italy and France. The population density is comparatively low - 86 persons per square kilometer.

The development of land is high. Agricultural land covers 71% of the territory of the country, and arable land 57%. Plough land is over 80% of agricultural land. This proportion was formed historically.

Chernozems make up the main volume of lands (two thirds). The climatic conditions of Ukraine are dissimilar. Three main zones are to be marked out: Steppe, Forest-Steppe and Woodlands. The former two are notable for higher soil quality, but lack of precipitation (especially in the Steppe zone). For Woodland, turf-podzol soils and comparatively small quantity of precipitation are typical. Inside the mentioned zones, several sub-zones are marked out. Each zone and sub-zone has its definite structure and specialization in agricultural production.

At the beginning of the transition period (1990), industry and agriculture represented respectively 60% and 21.4% of Gross National product, 41,3% and 30-0% of national income.

Among industrial branches, all parts of the product of the whole industry, engineering and metal working industries (32.9%) and ferrous metallurgy (11.3%) are marketed out. Food and light industries (18.1% and 11.3%) look comparatively developed.

According to given data of industry and agriculture ratios in gross national output and produced national income (net income) Ukraine should be considered as an industrial-agrarian country.

The primary function of agriculture and food industry in Ukraine was to provide the country with food products as well as raw materials for light industry.

In Ukraine, the achieved development level in agriculture does not correspond to the natural potential of this branch, owing to the fact that Ukraine has the most fertile soil in Europe. This is conditioned by a number of reasons; in particular, by the low levels of energy supply and supply of agricultural labor, by low-productive technologies in plant-growing and cattle-breeding, by insufficient supply of mineral fertilizers and means of plant and cattle protection from vermin and diseases, etc. but the major reason (as recognized by scientists-agrarians) is the wrong socio- economic structure of the branch based on state ownership of land and state and collective ownership of other means of production. A sense of mastery was distorted in peasants; this sense was always a strong stimulating motive for more productive and effective labor.

VETERINARY SCIENCE

Veterinary medicine (veterinary science) is the branch of medical science, which deals with the prevention, diagnosis, and treatment of the diseases of domestic animals and the management of other animal disorders.

Veterinary practice was established as a specialty as early as 2000 BC in Babylonia and Egypt. The ancient Greeks had a class of physicians who were called "horse-doctors", and the Latin term for the specialty, *veterinarius* ("pertaining to beasts of burden"), came to denote the field in general in modern times. After a period of virtual nonexistence during the Middle Ages, veterinary science revived in the 18-th century, when the first veterinary schools in Europe were established. The subsequent development of Veterinary science largely parallels that of modern medicine.

The preventive and control measures used in veterinary science are of great economic importance to the livestock industry- Such common animal diseases as mastitis, brucellosis, swine fever, and some others can cause major losses among stock animals and must be controlled or prevented by veterinary doctors. Vaccination and Immunization, sanitation measures, and the rigid segregation are important tools used to combat the spread of such infectious diseases as anthrax, bovine tuberculosis, brucellosis, canine distemper, and rabies.

A veterinarian's training must include the basic preclinical disciplines of anatomy, histology, physiology, pharmacology, microbiology, and pathology. The clinical subjects of study can be divided into internal medicine, surgery, preventive medicine, and clinical practice. Internal medicine includes the diagnosis and treatment of diseases as they affect animals. Surgery includes wound treatment, fracture repair, the excision of body parts, and the related techniques of radiology, anesthesiology, obstetrics, treatment of lameness, and so on. In both medical and surgical treatment, the same techniques are used as in medical practice on humans.

In most countries of the world, professional veterinarians must complete an educational program of 4-6 years of work at the university level, after which they must obtain a license to practice. In many countries the degree of doctor of veterinary medicine (D.V.M.) is awarded after successful completion of such course of study. Veterinary associations exist in practically all countries, their purpose is to advance the standards and improve the services of the profession.

HELPING CONSUMERS TO CHOOSE HEALTHY AND SAFE FOOD

In recent years, there have been a number of public health scares about food safety and growing concern about the quality of food. A survey of public opinion carried out by the European Commission in 1997 found that food safety was consumers' biggest concern.

These findings prompted the Commission to launch a campaign on consumer health and food safety. The main aims of the campaign, which was organized in two phases between 1998 and 1999, was to inform consumers about the basic aspects of food safety, to draw the public's attention to the role they must play in ensuring food safety, and to strengthen the role of consumer organizations as useful sources of advice to the public on food safety issues.

The campaign was carried out by different organizations in each of the 15 EU Member States to reflect the diversity of national traditions concerning food culture. It concentrated on issues of food labeling, especially for food additives, trace ability of foodstuffs and genetically modified organisms.

Depending on the country, the organizations in charge of the campaign also provided advice on food hygiene, dealing with issues such as cleanliness in the kitchen, the correct temperature to store food, and cooking times and temperatures for certain types of meat. In some cases, information was also provided on existing food safety regulations or to encourage people to eat balanced meals. In Sweden, the initiative featured a little monster leading the way around a "horror kitchen to illustrate the hygiene risks in the home. The 'horror kitchen' was used in six million copies of a tray mat distributed in a fast-food chain, which enabled the campaign to reach its primary target, teenagers.

Through the campaign, the EU wanted to stress to consumers the importance of national and EU authorities in guaranteeing food safety but also to emphasize that the public has a crucial role to play in ensuring food safety. All measures to keep food safe and healthy from the farm to the supermarket shelf are useless if consumers fail to observe basic hygiene rules like keeping raw and cooked food apart in the kitchen and ensuring that certain foods, especially chicken and egg products, are cooked for a sufficient length of time,

HARNESSING THE POTENTIAL OF NEW TECHNOLOGIES

Before new biotech products can be sold for human consumption, the makers of the products have to submit detailed dossiers on the products, so that EU regulators can establish whether there is any risk to public health. In the case of such foodstuffs, known as novel foods in EU terminology, each application has to be assessed by a special scientific committee, made up of independent scientific experts who give advice on whether a foodstuff is safe for consumption. The committee's recommendations are then considered by the Standing Committee for Foodstuffs, made up of civil servants from each of the 15 EU Member States. If Member States have concerns that new foodstuffs may pose some risk, they can raise these concerns and possibly block authorization of a new product.

In order to provide consumers with maximum information about foodstuffs and whether they contain genetically modified organisms (GMOs), the European Union has agreed on strict labeling guidelines. Products containing or consisting of

GMOs have to be labeled. Products derived from a GMO have to be labeled if the characteristics of the food or food ingredient are different in comparison with a conventional food or food ingredient. The presence of DNA or protein derived from a genetic modification may serve as an indication of such a difference. If products are GMO-free, the producers can write so on the label.

In an attempt to solve the problem of producers who have tried to keep their food products free of GMO material but have not been able to prevent accidental mixing with authorized GMO material, the EU has set a threshold which allows such products not to be labeled if the accidental contamination does not exceed 1 %.

THE EUROPEAN UNION AND FOOD QUALITY

Over the last few decades, the public has become increasingly concerned about food safety and quality. Consumers want to be sure that the food they buy in supermarkets or eat in restaurants is safe, nutritious and wholesome, as well as being produced to a certain standard. Events like the outbreak of BSE or 'mad cow' disease or the crisis about dioxin in food have increased overall anxiety about food safety. In addition to safety issues, more people are focusing on the quality of the food they eat.

Addressing consumers' safety concerns and quality expectations is a major responsibility for the European Union. Over the last 40 years, the EU has developed a comprehensive set of rules, standards and monitoring practices to guarantee that the food we eat is as safe and appetizing as possible. The Union is involved in measures at every stage in the food manufacturing process, from the farm to the factory and to the fork, to ensure that what we eat is safe and healthy. Some of the tasks are carried out by the industry itself, some by the Member States, and others by the European Commission and the special agencies and bodies it controls. However, the Commission has overall responsibility for ensuring that standards are applied equally across the Union.

FARMING POLICY: FROM QUANTITY TO QUALITY

The first place to start promoting high food safety and quality standards is, of course, on the farm itself. Through the common agricultural policy (CAP), the European Union encourages farmers to produce high quality agricultural products across the whole spectrum, ranging from meat and dairy products to cereals, fruit and vegetables. Over the past decade, the CAP has been modified to put greater emphasis on meeting consumers' quality expectations.

One of the key aims of the CAP is to provide farmers with a decent living by guaranteeing them a stable market for their products. When the policy was first created, the main instrument for achieving its aims was price support, whereby farmers would be guaranteed a certain return when selling their products.

Rural development schemes offer special funding to help farmers upgrade the quality of their production and their marketing efforts, so that they can secure a better price from consumers for their goods. Funds are also available to develop markets for niche products, especially those with special regional characteristics, which are valued by consumers.

Over recent years, consumer demand for organic products has increased dramatically. By 'organic' we mean foodstuffs, which have been produced without using many of the chemical pesticides and herbicides and animal medicines used in farming today.

To ensure that consumers know what they are getting when they buy products claiming to be organic, the European Union has also established rules for labeling. Although labels can vary from one EU country to another, they must bear the words 'Organic farming - EEC control system' which is proof that a grower has met EU requirements and has been subject to controls by national authorities. In 1999 an EU-wide 'organic' label was also agreed.

LEGISLATING FOR FOOD SAFETY AND QUALITY

The European Union has at its disposal a vast range of legislation that applies to foodstuffs, additives, vitamins; mineral salts and oil substances which come into contact with food during the manufacturing process. There are 'regulations' or pieces of EU legislation concerning veterinary controls alone. The EU decides which products are authorized to be used in food production and whether these substances pose a risk to human health if residues remain in foodstuffs. This list applies to substances such as veterinary medicines, pesticides, additives and pathogens.

It is the responsibility of the public authorities in each EU country to ensure that foodstuffs are free of banned substances. National authorities take regular samples of foodstuffs and subject them to laboratory testing.

The European Union lays down very strict rules for wine and spirits to ensure that products come from the areas indicated by the labels and that wines are produced according to established practices. Extensive rules also exist for beef.

Under agricultural legislation, strict rules exist for fruit and vegetables to ensure that buyers can be sure of a certain quality and size of produce. Other agricultural products, like beef and cereals have to meet technical specifications in order to be eligible for the EU's system of public intervention. This ensures that farmers are not simply producing for intervention but that goods are of sufficient quality to be sold on the open market.

Since the early 1990s, the European Union has introduced a new set of measures that aim to give farmers better returns for high-quality products while providing better guarantees to consumers about the products they are eating. This

initiative aims to improve the protection of products that come from a specific region in the Union or are produced according to traditional methods. The scheme operates using three marks of quality: protected designation of origin (PDO), protected geographical indication (PGI) and traditional speciality guaranteed (TSG). So far over 500 products have been registered under this programme. The list includes famous traditional products such as Scotch beef, Roquefort cheese, Serrano ham and a range of beers.

MONITORING FOOD SAFETY CONTROLS:

THE EU FOOD AND VETERINARY OFFICE

The European Union has built up a significant body of laws on food safety, animal health, animal welfare and plant health over the last decades. While the main responsibility of ensuring that these laws are respected rests with the 15 Member States, the European Commission shares responsibility by checking that Member States are doing their job properly. This is done through the Food and Veterinary Office (FVO) based in Dublin, Ireland. The FVO aims to ensure the highest standards of safety and quality throughout the food chain from table to table, by monitoring all aspects of food production.

The FVO's team of inspectors and experts carry out audits and spot-checks on food safety controls in the Member States, as well as in countries outside the EU which export "food products" into the Union. The number of inspectors has recently been increased to 100 to reflect the importance of the FVO's work.

Animal health is one of the major areas of responsibility for the FVO. In case of an outbreak of an infectious disease in the EU, the Commission may introduce a ban on movements of animals from the affected Member State. In the case of BSE or 'mad cow' disease, the EU banned exports of live animals from the United Kingdom and Portugal to stop the disease spreading. The FVO will normally be called upon to carry out an urgent inspection to assess the situation on the ground and recommend additional measures.

The FVO is also responsible for issues such as the safety of foods of plant origin, particularly the monitoring of pesticide residues in fruit and vegetables, and ensuring that producers are meeting standards for organic production.

LIVESTOCK AND MEAT MARKETING

Livestock production is an important segment of U. S. agriculture. Some 55 percent of U. S. farms were classified as primarily livestock operations in the 1982 agricultural census. Livestock products account for more than one half of farm cash receipts. The cash receipts from the sale of cattle and calves in 1987 were the largest for any single enterprise. Meat and livestock products account for about one third of the consumer's food bill.

We are concerned with the red meat animals - cattle, calves, hogs, sheep, and lambs. This is one of the most complex sectors of the food industry. Ranchers and farmers, feeders, meat packers, processors, wholesalers, and retailers are interrelated through a complex chain of markets involving a large number of marketing activities, functions, and institutions.

It is very difficult to draw a line between farming and marketing in the combined feed-livestock sector of the food industry- Livestock are protein converters, transforming vegetable protein into animal protein. These "protein factories" are a form of food processing. Moreover, livestock feeding can be viewed as an alternative way for the grain farmer to market grain. In this sense, the grain-livestock farm, so common in the Corn Belt states, is in reality a very sophisticated fanning and marketing protein-conversion operation that is vertically integrated.

The red meat livestock segment of the food industry has undergone substantial change over the years and continues to change. Decentralization, specialized cattle feeding, the growth of supermarkets and chain stores, and improved transportation, grading, market information, and product quality have been important trends in this industry.

CHAPTER III

Activity I - Management, Housing and Feeding:

1. Hogs wallow to keep _____ because they do not have _____.

2. Name three things you can use to keep a pig warm during cold weather. _____, _____ and name the two methods of feeding pigs, and list important things to remember for each method.

Method 1

Make sure to: _____

Method 2

Make sure to: _____

3. A _____ watering system is best.

4. What are some important points in providing housing (pen and shed) for a pig?

5. Visit a feed store and study all the feeds a pig can eat. List the _____ | feeds, give their protein contents and tell whether or not they are considered complete feeds (combine all nutrients necessary for good growth).

Percent of

Complete

Feed Protein (YES or NO)

External parasites are lice, ticks and mites. They must be controlled by chemicals. These parasites cause problems with the pig's skin. The skin may appear irritated (red, scaly, bumpy). The animal will scratch itself and rub its hair off. Scabs may form. Treat pigs every 30 days if problems arise. Contact your county agent or veterinarian for chemicals to use.

Pig-Health problems can be kept to a minimum by:

1. Buying pigs from herds that are healthy.
2. Staying on a regular schedule with your deforming.
3. Watching your pigs closely for signs of ill health.

Fitting, Grooming and Showing Hogs:

Fitting and grooming cannot be done in one or two days, or even in a week or two. Fitting your pig means feeding for proper condition. It should not be too fat or too thin. Some pigs start to get fat younger than others. These pigs need to be taken off full feed and put on a limited feed diet. Exercising the pig by making him walk 10-20 minutes each day can also help to trim a fat hog. Other pigs stay lean until well past market weight (220-240 lbs.) These pigs can be kept on full feed throughout the feeding period.

Grooming a pig for show is an easy procedure when compared to other types of livestock. Grooming a pig consists mostly of bathing and brushing him regularly. Start brushing your pig the day you buy him. It will keep his hair coat shiny and teach him to enjoy your visits.

Brush him for 5-10 minutes each day for the first half of the feeding period. Increase the brushing time to 10-15 minutes on the last half of the feeding period.

Start bathing your pig every week or two, beginning six weeks before the show. Wet the pig down, and apply a mild liquid soap or detergent over the back. Use a soft-bristled scrub brush to clean all parts of the pig. Make sure you do not get water in the ears or soap in his eyes. Pick a nice day to bathe your pig. Brush the pig dry after its bath. Bed the pig on hay or straw, and change the bedding every week or 10 days. Be sure to bathe the pig about five days before the show, and put fresh bedding down.

You should again increase brushing time the last five days. If your pig has some wild hair, use a grill brick to remove them. A grill brick, usually used to clean grills in restaurants, is available from restaurant supply stores. Brushing your pig's coat with the grill brick in the direction the hair lies will remove unwanted hair.

Let the pig rest for 24 hours before leaving for the show and feed it lightly.

Plan ahead on how to load the truck. Don't overcrowd. Keep boars, gilts and market hogs separated.

Make sure the truck is ventilated properly. Protect the pigs from excessive drafts in the winter, and moisten the bedding and provide shade in the summer.

On long trips, stop frequently to check the pigs. Wet their bedding, and give the pigs some water. When loading or unloading the truck, do not excite or frighten the pigs. Don't rush the pigs. Be patient, and give them time to move. Observe safety precautions. The truck driver should avoid sudden starts and stops.

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At the Show:

Unload carefully and pen the pigs in the designated pens. Water the pigs moderately and rest them 6 to 12 hours before feeding. Feed the pigs lightly to start with after arriving at the show.

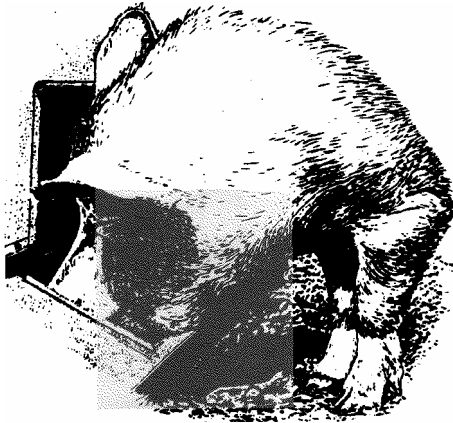
Wash the pigs, and brush them dry after they are rested. Always keep the pens and tack area neat and clean. Do not put tack boxes in the aisles. Do not leave feed and water buckets in the pens. Pick up solid waste and manure to keep the pens clean.

Exercise the pigs to help maintain control and to keep them from growing stale. Never full feed pigs at the livestock show.

Wash the pigs thoroughly again the evening before showing. Make sure their ears, tail and feet are clean. DO NOT get soap or water in the ears or eyes. After washing and rinsing the pigs, brush the hair until dry.

Before leaving the pen for the night, check all equipment and make sure everything is in place.





Show Day:

Feed the pigs early, at least two hours before show time. Feed only about one-half as much as normally fed. A limited feeding will keep your pigs active and alert during the show. Proper fill (feeding and watering the pig until he looks right) is an important part of fitting and showing. Some pigs will need more than others to look their best.

Groom the pigs, and brush their hair coats to bring out the natural oils and make them shine. Remember, oils or powders are not necessary or recommended. They indicate a lack of grooming and detract from the natural look.

Wear clean, neat clothing for the show. Dress conservatively in neutral colored pants or skirt and sport shirt. Remember, the pig should stand out, not the exhibitor.

If you use a whip:

Use a lightweight whip not more than 4 ft. long. Have a small leather switch or flap on the end.

Drive or steer your pig by gently tapping him on the shoulders or neck. Tap the pig gently behind the front flank or on the side to move him forward. Never hit him on the back, rump or snout. If you need his attention, remember that his ears are very sensitive to the leather switch or flap.

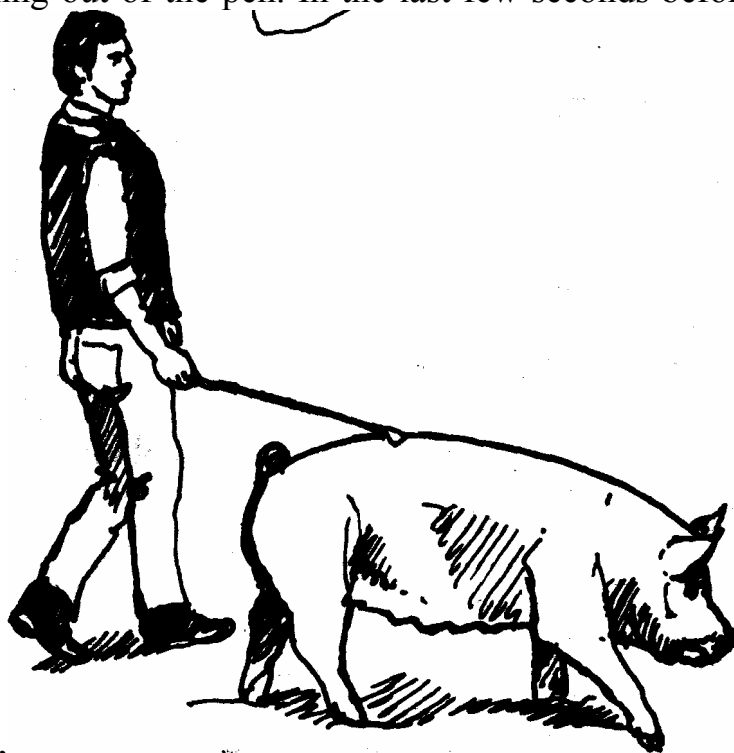
Don't place your hand or cane around the pig's tail or hind legs. Don't shove or knee your pig to make him move or turn. Keep your pig out of comers and away from the fence. If you let him in the comer or run the fence when you first come into the ring, he will continue to want to do this and may become a "squealer" and difficult to show. Keep the pig between you and the judge.

Stay within three feet of your pig and about even with his rear flank. Keep the pig within 12 to 20 ft. in front of the judge. Stay out of large groups. Keep your pig in the open and out of crowds.

Keep eye contact with the judge. Anticipate every move the judge makes so you can keep the pig in his view. Don't rush your pig to keep in the judge's view. Move your pig slowly when the judge looks your way.

Show the judge your pig from the side, rear and front. Don't overwork your pig. Be slow and patient. If you are sent to a holdings pen by the judge, you are still showing, so maintain eye contact with the judge. Stand on the far side of the pig away from the judge, but use this opportunity to freshen the pig by brushing.

Pay attention to the judge and respond to his commands. Always lock the gate going in and coming out of the pen. In the last few seconds before the judge makes



his final decision, it is important to maintain control over your pig. Try to keep calm, and don't overshadow your pig. Be patient! Never swing your cane, whip or free hand in the air to get the judge's attention. Be courteous to the judges. Don't forget to say "yes, sir" or "no, sir" or "excuse me" or "thank you."

Do what the judge asks you to do. If he wants to view the pig from the rear, get in front of the pig and stop him, then move to the opposite side of the pig away from the judge as he walks around the pig. Do not talk to the judge unless he talks to you.

Activity II - Health, Fitting, Showing and Grooming:

1. Name three external parasites which affect hogs.

1. _____

2. _____

3. _____

2. Describe a healthy hog.

3. When in the show ring, what three things should you know at all times?



- _____
- _____

4. What facts should you know about your pig before entering the show ring?

5. Describe the methods used in grooming a pig for show.

Swine Project Record

This record of your swine project will help you keep an accurate account of income and cost. Make an entry every time you buy or sell your swine or win a prize. Your club leader or parents will be glad to help you make the necessary entries. Prepare a record each year similar to the one below.

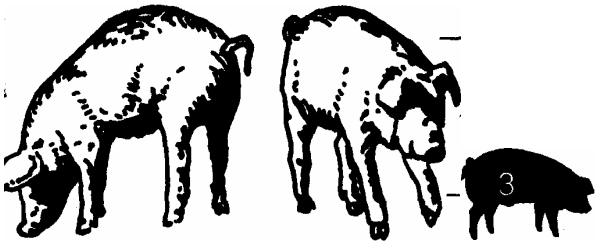
Expenses
(Things **you** bought)

Income
(Swine sold, or awards won)

Date Description

Cost

Date Description Cost



Introduction. The 4-H Swine Project is a good project for any 4-H club member. It is a short-term project designed to teach you how to raise hogs. It allows you to develop skills in producing pork.

You will learn (1) to judge or select pigs, (2) to feed and care for pigs, (3) to exhibit (fit and show) pigs and (4) to record your activities. Each activity lets you learn how to work with others.

After your swine activity is completed, you will have a chance to compete with other club members from all parts of the state at livestock shows. Competition is keen, and the livestock shows are a great learning experience. Sometimes you win, sometimes you lose. But all of your experiences are important in learning and developing character.

Swine Projects There are two basic swine projects you can do:

1. Market Hog Project — club member purchases a young pig and feeds, fits and shows it.

2. Breeding Swine Project — club member manages, fits and shows a gilt or boar and then breeds it to produce young pigs.

Breeds and Their Descriptions

Eight major breeds of hogs are commonly produced in the United States today. They are Berkshire, Duroc, Hampshire, Poland, China, Spot, Chester White, Landrace and Yorkshire.

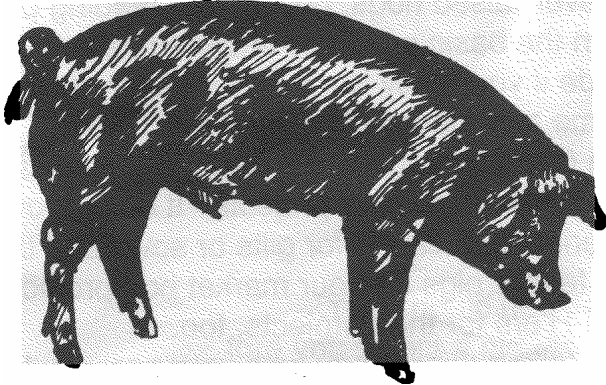
Each breed has definite characteristics and colour patterns which distinguish it from other breeds.

The three most popular breeds in Louisiana are Duroc, Hampshire and Yorkshire.

The Duroc Breed

The Duroc breed originated in the eastern United States. The colour ranges from a light, golden, almost yellow, to a dark red. It is solid over the entire

body. Durocs have large, drooping ears set wide apart. The Duroc is one of the larger breeds. The sows are excellent mothers. They have large litters of 12 pigs or more



and a finishing ration is lower in protein (14%). Protein requirements in the ration decrease as pigs gain weight because they eat more and more feed each day. Smaller pigs require feed with more protein. It is important to choose the proper feed for your pigs. The table can help you to select the proper feed.

Feed Type for Size of Pigs:

Protein Content	Weight Of Pig	Average Daily Intake
18%	40-80 lbs.	1.5 - 3.0
16%	80-130 lbs.	3.0 - 5.0
14%	130-240 lbs.	5.0 - 7.5

Once your pigs reach 240 lbs., or after the show, you should stop full feeding. It is important to feed sows, gilts, boars and baby pigs correctly, if you are to be successful in a breeding project.

Pregnant sows or gilts need 3 to 4 pounds of an 18% protein feed each day. Sows nursing baby pigs should be fed about 8 to 12 pounds of a 16% protein ration each day.

Boars should be fed about 4 to 6 pounds of a 16% protein feed each day, depending on how often they are used for breeding.

After birth, baby pigs nurse their mothers and eat only milk for a few days. They begin to eat dry feed along with the milk at about one week of age. This feed

should contain at least 18% to 20% protein. At about four to six weeks of age, the baby pigs are weaned and eat dry feed only.

You must choose the proper feed for the stage of growth and feed your pigs according to these recommendations for the best, most efficient results. Later you will learn how to mix your own rations. For now, we recommend that you buy commercial hog rations that meet the requirements for stage of growth.

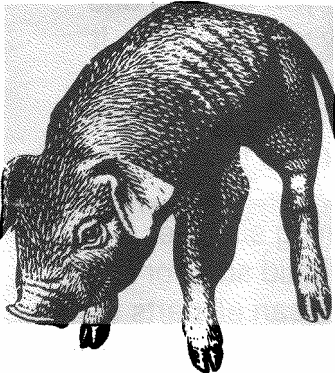
Keeping Pigs Healthy

A healthy pig is important to the success of your project. To maintain a healthy pig, you will need to be able to recognize the difference between a healthy and unhealthy pig. You will need to know how to control some of the more common diseases and parasites of pigs.

The unhealthy pig lacks one or more of the signs of healthy pigs. It may have a lack of appetite, appear depressed or listless, the tail won't curl or it has a dry or watery stool. Breathing may be laboured, the temperature will be higher than normal or it doesn't walk around normally.

Pneumonia and respiratory infections are common sicknesses of pigs. If a pig's tail won't curl, and he stops eating, coughs or breathes fast and has a fever, move him to a place away from other pigs. If you think your pig is sick, check with your parents. They may call a veterinarian for treatment. There are many treatments (chemicals) that can be used to help a sick pig. Be sure to read and follow carefully the label instructions for applying the treatment.

Internal parasites like stomach and bowel worms are generally a big problem if left unchecked. A routine worming schedule should be followed. For market hogs, worm the pig when you purchase him and again in two weeks and then every 30 days. For example, deworm pigs on October 1 and again on October 15 and then again on November 15, December 15 and January 15. Contact your veterinarian for recommended wormers to use. Follow label instructions for dosage and withdrawal times (the number of days you must wait between the treatment of an animal with a drug and slaughtering the animal). Breeding sows and gilts should be treated for internal parasites one month before breeding and again two weeks before breeding and repeated one month and again two weeks before farrowing. Boars should be wormed at least twice a year if kept in confinement. If kept in pasture, deworm every month.



The first step in showing a hog is to train it at home. Hogs are intelligent and respond well to rewards and punishment. Start training your hog by making friends with it. When you brush the hog every day, you may want to bring it a treat.

Once the pig stops running from you when you enter the pen, you are ready to train it to respond to a cane or whip. Start by rubbing the pig on its belly and then gently tapping on the pig's side to make him move. Teach the pig to turn by tapping him on the jowl. Be as gentle as possible, and reward the pig by rubbing him with your show stick when he responds well.

There are times when you should be firm, but never abuse, kick or beat your pig. If the pig refuses to stay away from the fence or refuses to turn, a sharp hit with your cane or whip can help to tell him that he is doing wrong. As soon as he responds, go back to using gentle taps. If you are firm while you train the pig, it should not be necessary to use force in the show ring.

Once the pig is responding well to the show stick, ask a friend or parent to act as a judge. Practice moving the pig back and forth in front of the judge. Attend any showmanship clinics your leader or agent offers. Your hog should be well trained if you train for 10-15 minutes during the daily feeding period in the last month. Increase the time spent training the pig the week before the show.



Do's and Don'ts of Showing:

Going to the Show:

Overall dipping of the hair coat is not necessary, and it is actually discriminated against with market hogs. However, if you are going to use clippers on the hog, do it a day or two before going to the show. Clip the long hair on the ears, tail and underline only. Clip the ears both inside and out and all of the tail except the switch, the last two inches of the tail. Clip the underline on gilts that have long hair to make the nipples show more prominently. Clip the underline and around the sheath of a boar to exhibit a trimmer underline.

Know these facts before entering the show ring:

The hog's farrowing date.

The hog's number.

The weight of the market hog.

If a boar or gilt, how many teats are on each side of the underline.

The judge's and ringmaster's names.

Before leaving for the show ring, give the pig a drink of water and brush all straw or bedding off the pig.

Walk steadily but do not run to the ring. If it is a hot day, have someone standing by with some water in case the pig gets too hot. Be calm and gentle with the

pig while getting into the ring. Make sure you are in the correct class. Be in the ring on time.

Show time:

Before the judging starts, after you enter the ring, stand relaxed and idle with your pig. When the judging starts, show the pig to the best of your ability.

At all times you must know:

Where your pig is.
Where the judge is.
Where your competition is.

In the arena, use your best showmanship to show your pig:

Keep your cane or whip in one hand.
Keep your small brush in a pocket.
Keep one hand free to open gates, etc.

If you use a cane:

Hold the straight end and guide the pig with the curved end. The hook can be used to pull your pig around, out of a fight or out of a crowd or corner.

After the final placing, you may want to thank him. It is courteous to congratulate the winners.

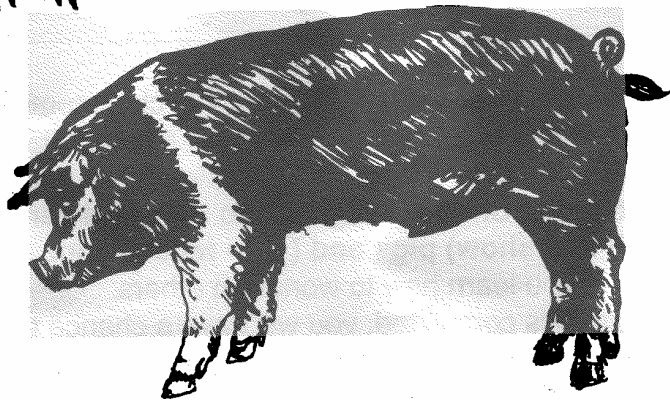
Be courteous to your competitors. Do not do anything that will distract attention from a fellow competitor's pig. Never intentionally drive your pig in front of another pig the judge is looking at. Don't drive your pig into a pen where someone else is already trying to put a pig.

Be a humble and gracious winner and a good loser. Don't criticize the judge or a fellow competitor. If you can't say something nice, don't say anything at all.

No number of books or articles on fitting and showing can make anyone an expert exhibitor. Part of it may be natural skill, but most comes from experience and practice.

There is an old saying which helps us understand the importance of fitting, grooming and showing. It is: "You can't make a champion out of an average pig, but you can ruin a champion." This means that what to do to fit, groom and show your pig will determine if you get the most out of the pig you are showing.

The Yorkshire Breed:



The Yorkshire breed originated in England. It was imported into the United States in 1893. The Yorkshire is solid white. The York face is broad with a pronounced medium dish face. The snout is of medium length and broad at the nostril. The ears are of medium size and held at an inclined, erect angle that tilts forward. The York is called the "Mother Breed." The sow is ranked at the top of all breeds as a mother. York sows have large litters of 12 to 15 pigs per litter. The York is one of the largest breeds, and boars and sows are easy to handle.

A 4-H Swine Project can be profitable. Hogs grow fast and cost less to feed and raise than do most other kinds of livestock.

The most popular 4-H swine project is raising young pigs to market hog weight (230 lbs.). This is a good beginning project. It requires fewer facilities and less money than other swine projects. For a beginner, or someone who has never raised hogs, buying and feeding-out feeder pigs is a good way to learn the basic practices of caring for and feeding pigs. It will allow you to decide if you really like to raise hogs without your having to spend too much time and money on the project.

It is short term (lasts a year or less) and requires less space, less money and less equipment than other projects. It does provide 4-H'ers with the fun and experience of caring for gilts or sows and their baby pig. It can be a source of feeder pigs for your market hog project. You can sell feeder pigs to other 4-H'ers for their projects, too.

After you have talked things over with your parents, leaders and agents, pick the swine project which best suits you.

Genetic Progress Through Artificial Insemination

Artificial Insemination (AI) provides unique genetic opportunities that allow progressive purebred breeders and commercial producers to access the very best or most advanced genetic material available in the industry today. Most reputable

genetic companies put forth an effort to make available sires that rank in the top 1%-2% of their respective breeds for economically important swine production traits. Many of these sires are progeny-proven with very high accuracies for the various traits. By using progeny-proven sires that rank at the top of their breeds, a producer can eliminate most of the guesswork or gamble involved in selecting sires.

From a genetic progress standpoint, using truly elite sires allows for much more rapid genetic progress than just using what many producers, particularly commercial producers, consider superior-performing boars. The rate of genetic progress is a function of the heritability of the trait(s), the intensity of selection and the genetic variability for the trait(s) involved. The manner in which heritability may be increased is by using appropriately accurate records, particularly by using proven sires with high accuracy for EPD (Expected Progeny Differences) values. The intensity value is simply a function of the percentage of animals in the population that are used for breeding purposes.

The rate of genetic progress is a direct function of selection intensity, so both purebred and commercial producers should attempt to maintain intensity values that are as high as possible. The simplest manner of keeping sire selection intensity at a maximum is to use the very best sires available within individual breeds through AI.

By using sires that rank in the top 1%-2% of a breed, genetic progress will be almost twice as rapid as using boars that rank only in the top 20% of the breed. By careful selection of boars through AI, producers can also greatly increase the genetic variability available for making change within their herds. Particularly in a closed herd setting, AI offers the most economically sound method of maintaining genetic variability in a positive direction.

Artificial insemination offers many advantages over other methods of introducing genetic material into a closed-herd setting. First, by using AI, a breeder should select the most productive sows under his environmental conditions for mating. This practice should help to ensure the adaptability of pigs sired by AI sires. But, more important, by using AI, a breeder can introduce a variety of genetic material for less cost and be assured of using proven sires with high accuracy values that rank at or near the very top of their respective breeds.

For several years, the primary mode of genetic progress in the dairy industry has been to use progeny-proven bulls through artificial insemination. AI has allowed the U.S. dairy industry to make the fastest genetic progress of any country in the world. The same methods of genetic evaluation used by the dairy industry are now available in the swine industry. Such genetic evaluation systems offer breeders the opportunity for a much more rapid rate of genetic progress, particularly for lowly heritable traits such as number born and litter weight.

Artificial Insemination in Swine

In practicing the concept of AI, basically one thing is being done. The procedure for presenting the ovum with the sperm cell for fertilization becomes non-natural, or "artificial," instead of natural. Thus, the variations and limitations of natural service are replaced by an artificial procedure which, although not perfect, opens the door to a world of advantages over natural service. Artificial insemination requires optimum management for optimum results.

Be knowledgeable

Know that AI is easy. You don't necessarily have to attend an AI clinic to learn to AI sows. Clinics are, however, informative and helpful. Know AI offers some advantages over natural mating. Know what advantages you hope to obtain, and set some goals. This will motivate you to do a better job.

Know liquid semen is alive. It is thousands of tiny, living organisms. They are very sensitive to vibrations, light and temperature change. They are so sensitive that, if exposed to these environmental factors, their lives are shortened or terminated. Never shake bottles of semen. Handle them gently. Maintain semen at a steady temperature recommended semen for breeding and better conception rates.

Know that AI is routinely practiced with high conception rates and large litter sizes in many herds around the world. It can be done.

Be observant

Pay strict attention, and be watchful. Be careful and quick in observing, and be mindful. Be keen. These qualities cannot be ignored if success is to be realized. No matter what you are trying to accomplish, the following hold true: If not watchful, you will miss it. If not mindful, you will not know what to do with it. If not keen, it may be too late.

All prospects to be bred should be observed for signs of standing heat twice daily. Some of the symptoms of onset of heat are restlessness, loss of appetite, booing, trying to ride other sows, reddening and swelling of the vulva, and a clear discharge from the vulva. All symptoms may not appear on all animals. Usually, sows will express signs of standing heat by the supplier. Always protect semen from light, especially sunlight.

Know liquid semen offers several advantages over frozen semen. These advantages include quality of sperm, less sophisticated storage equipment, ease of preparing within 12 hours after symptoms appear.

Be gentle

A sow's trust of humans can be easily replaced by fear of humans. This places a barrier between hog and human. This should never be. Hogs are intelligent. They are the 10th most intelligent of all warm-blooded species and are more intelligent than dogs. A good herdsman will work with his sows. If you understand a sow, she will understand you. Insemination will be easier, and conception rates should be higher. Some research done in Australia showed pleasantly handled gilts attaining 87.5% conception while unpleasantly handled gilts attained only 33.3% conception. Also, the pleasantly handled group reached puberty 20 days earlier than the unpleasantly handled group.

Be patient

Patience is the ability to idle your motor when you feel like stripping your gears. Things happen in the AI process that will probably make you feel like stripping your gears. You must realize that, as the inseminator, you are not the boar himself. Neither do you possess his features, which cause gilts or sows to become very receptive to the breeding process. You must also realize it's very important for the sow to know she is being bred. Consequently, for best results in A I, all the stimulating features of the boar should be offered to the sow before and during insemination. This can be accomplished in a very practical manner.

1. Put the female to be bred beside a boar with only a see-through gate between. The boar will aggressively pace the edge of the pen. He will talk and give off odors. This will satisfy the gilt's need for the stimulating features of sight, sound and smell.
2. Place your hand firmly on the gilt's or sow's back. She will immediately stop and freeze if she is in standing heat. She is ready to be inseminated.

Patience is just as important in preparing the female for insemination as it is in the insemination procedure. Experience will be your best teacher. If you don't display a lot of patience, your experience won't be very long and you won't learn very much.

Be timely

Gilts and sows have a valuable feature that is very helpful in deciding when to breed. They will accept a boar for only a two- or three-day period around the time of ovulation. Any time a gilt or sow is mated during her heat period, there is a chance for conception. Length of heat period in gilts is usually every 20-21 days if conception has not taken place.

The gilt or sow ovulates at 30-36 hours after she first stands. The ova live no more than about 34 hours if not fertilized. Sperm live 24-48 hours in the female tract, and they may take 4-6 hours to reach the oviduct after insemination.

Although there is a chance of conception when inseminating anytime during the standing heat, timeliness of mating(s) within this period will increase conception rate and litter size. If you want control of optimum breeding time, you will check for

heat every 12 hours (twice daily). Gilts and sows should be bred 12-24 hours after they are found in standing heat. A second breeding should follow 12 hours later.

Be clean

'It's that simple. Be clean. In every facet of the AI procedure, you must be clean or performance may be hindered.

Use clean equipment. The best approach is to use new disposable equipment. It enhances optimum sanitation and saves time. If plastic bottles are reused, they should be thoroughly rinsed and boiled for 15 minutes between sows. Never breed more than one sow with a rubber spiretic without cleaning it. If a disposable rod is used, breed one sow and throw the rod away. This prevents the chance of spreading harmful organisms from a problem sow to sows with healthy reproductive tracts. Never lay a spirette or disposable breeding rod in dust or dirt or use it to handle sows. Keep them in a clean container, and remove when ready to inseminate.

Список використаної літератури

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