

МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА
И ПРОДОВОЛЬСТВИЯ РЕСПУБЛИКИ БЕЛАРУСЬ

ГЛАВНОЕ УПРАВЛЕНИЕ ОБРАЗОВАНИЯ,
НАУКИ И КАДРОВОЙ ПОЛИТИКИ

Учреждение образования
«БЕЛОРУССКАЯ ГОСУДАРСТВЕННАЯ
ОРДЕНОВ ОКТЯБРЬСКОЙ РЕВОЛЮЦИИ
И ТРУДОВОГО КРАСНОГО ЗНАМЕНИ
СЕЛЬСКОХОЗЯЙСТВЕННАЯ АКАДЕМИЯ»

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АНГЛИЙСКИЙ ЯЗЫК

CROP GROWING

*Рекомендовано учебно-методическим объединением
в сфере высшего образования Республики Беларусь
по образованию в области сельского хозяйства
в качестве учебно-методического пособия для студентов
учреждений образования, обеспечивающих получение
общего высшего образования по специальности
6-05-0811-01 Производство продукции растительного
происхождения*

Горки
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*Рекомендовано методической комиссией
по социально-гуманитарным и лингвистическим дисциплинам
20.11.2024 (протокол № 3)
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В данном пособии приведены тексты для чтения по специальности, упражнения для работы с лексическим и грамматическим материалом. Упражнения охватывают достаточно широкий спектр специальных терминов, используемых в агрономической отрасли народного хозяйства, и способствуют значительному расширению активного словаря студентов.

Для студентов учреждений образования, обеспечивающих получение общего высшего образования по специальности 6-05-0811-01 Производство продукции растительного происхождения.

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ВВЕДЕНИЕ

Учебно-методическое пособие предназначено для студентов I курса агротехнологического факультета. Являясь введением в чтение литературы по специальности, приведенные в нем задания имеют своей целью помочь студентам в процессе работы усвоить необходимый терминологический минимум по специальности и проработать основные разделы морфологии английского языка.

Задания состоят из 7 тематических уроков. Каждый из них, рассчитанный на 8–10 часов, состоит из трех видов текстов:

Текст А (для самостоятельной работы) представляет собой несложный текст для введения новой лексики на знакомом, повторяемом грамматическом материале. Объем текста – 900–1000 печатных знаков. К тексту дан список слов, составляющий 60–70 % вводимой в уроке лексики.

Проработка текста А и данных к нему фонетических и лексико-грамматических упражнений предполагает самостоятельную работу студентов.

Текст В (для аудиторной работы) – более сложный, он содержит усвоенный при проработке текста А лексический и грамматический материал. Прилагаемый к нему словарный список содержит 30–40 % новой лексики по теме урока.

Текст С (контрольное задание) завершает каждый урок-тему и предназначается для проверки усвоения лексического и грамматического материала, вводимого в уроке.

К текстам даны два вида упражнений: лексические и грамматические. Упражнения не следуют за текстом, а предшествуют ему. Выполнение системы упражнений до чтения текста устраняет лексико-грамматические трудности, встречающиеся в тексте, и работа над самим текстом завершает изучение лексико-грамматического материала урока.

В упражнения включены та лексика и те грамматические явления, которые являются наиболее частыми в агрономических текстах.

Объем лексики, вводимой в 7 уроках, включает 500 лексических единиц, а также интернациональные слова, производные и сложные слова, образованные из знакомых словообразовательных элементов, составляющие так называемый потенциальный словарь.

LESSON 1

Тексты: A. Agronomy

B. Field Crop Production

C. Crop Production: Past, Present, Future.

Грамматика: 1. Существительное. Признаки существительного. Единственное и множественное число существительного. Сочетаемость существительного.

2. Группа времен **Indefinite** в действительном залоге.

Словообразование: 1. Суффиксы существительных: **-er, -ist, -(a)tion, -ment, -ness, -ing, -ture**

2. Образование слов при помощи изменения

ударения

Словарный список А

body	n	тело
branch	n	1. ветвь 2. отрасль
chemistry	n	химия
crop	n	1. с.-х. культура, 2. урожай
	v	выращивать с.-х. культуру
cultivate	v	1. обрабатывать, 2. выращивать
develop	v	развивать(ся)
farm	n	хозяйство, ферма, v обрабатывать
farmer	n	фермер, земледелец
farming	n	полеводство, земледелие
field	n	поле
findings	n	полученные данные (сведения)
improve	v	улучшать
include	v	включать
manage	v	обрабатывать, содержать
management	n	управление
(field management		агротехника
soil management		земледелие)
plant	n	растение, v сажать
production	n	производство, изготовление
(crop production		растениеводство)
science	n	наука
(crop science		растениеводство
soil science		почвоведение)
scientist	n	ученый

soil	n	почва
species (pl.)	n	вид, род, разновидность
cultivated species		культурный вид
wild species		дикий вид
treat of	v	рассматривать
yield	n	урожай, v давать урожай

Синонимы:

branch (отрасль) = field
 cultivate (культивировать, выращивать) = grow
 soil (почва) = ground
 yield (урожай) = harvest, crop

Антонимы:

improve (улучшать) – make worse (ухудшать)
 include (включать) – exclude (исключать)
 wild (дикий) – cultivated (культурный)

Упражнения для чтения

1. Прочтите и переведите слова и словосочетания из текста.

Cultivate, cultivated, cultivation; improve, improvement, improvable; manage, managed, management; science, scientist, scientific, scientifically; treat, treated, treatment; field; yield, yielded, yielding; wild; find, findings; include, included, including; natural; culture, cultural; individual; practiced, practicing; branch; plant, planted, planting, plantation; production, productive; agriculture, agricultural, agriculturist; genetics, geneticist; physics, physicist;

The important branch, about the important branch, of the important branch; the crop production, in the modern crop production, the crop production of our country; soil science, to include soil science, to study soil science; the findings, to write down the findings, the findings from good farming; soil management, systems of soil management, to improve soil management; natural bodies, individual natural bodies, the studied natural bodies; farming practice, to improve farming practice, poor farming practice.

2. Прочтите вслух существительные, заимствованные из латинского и греческого языков. Запомните их чтение в единственном и множественном числе.

Ед. число

formula

fungus

Множ. число

formulae

fungi

bacillus	bacilli
stimulus	stimuli
datum	data
bacterium	bacteria
phenomenon	phenomena
criterion	criteria
basis	bases
analysis	analyses
crisis	crises

3. Прочтите вслух следующие слова и словосочетания. Помните, что при помощи ударения существительные отличаются от глаголов: у существительных ударение падает на первый слог, а у глаголов на второй.

Существительные	Глаголы
'increase	in'crease
'decrease	de'crease
'progress	pro'gress
'produce	pro'duce
'protest	pro'test
'transport	trans'port

The increase of yield, they increased the yield, the yield will be increased; it decreases, the yield decrease was, it will decrease the yield; the control for it, they must control, the weed control; a great progress, they made a good progress, the student's progress, they progressed greatly.

Лексические упражнения

4. Подберите правильный перевод к английским словам:

- | | |
|---------------------|------------------|
| 1. branch | I. урожай |
| 2. farm | II. поле |
| 3. field | III. агротехника |
| 4. improve | IV. улучшать |
| 5. soil management | V. земледелие |
| 6. field management | VI. земледелец |
| 7. farmer | VII. отрасль |
| 8. yield | VIII. хозяйство |

5. Подберите правильный перевод к русским словам:

- | | |
|--------------------|---------|
| I. Растениеводство | 1. body |
| II. почвоведение | 2. soil |
| III. полеводство | 3. crop |

- | | |
|------------------------|--------------------|
| IV. вид | 4. findings |
| V. почва | 5. crop production |
| VI. тело | 6. farming |
| VII. с.-х. культура | 7. species |
| VII. полученные данные | 8. soil science |

6. Подберите правильное определение к английским словам:

- | | |
|-----------------|--|
| 1. agronomy | I. to take care of the soil for growing crops |
| 2. soil science | II. a large piece of land usually forming part of a farm |
| 3. a field | III. the science of crop production and soil management |
| 4. to cultivate | IV. the science that treats of the principles and practice of field management |

7. Подберите английское слово к данным определениям:

- | | |
|---|-----------------|
| 1. a person who studies genetics | a. Crop |
| 2. the science of wild cultivated species of plants | b. a geneticist |
| 3. product of agriculture, such as tomato | c. botany |

8. Заполните пропуски подходящими по смыслу словами.

1. N. I. Vavilov is a well-known... . 2. Agronomy is the ... of agriculture.
 3. Many scientists made experiments, studied and wrote down their 4 ...
 . and crop science are included under the term „agronomy". 5. They carried on tests with different ... and wild species.

Findings, soil science, scientist, branch, cultivated.

9. Переведите следующие интернациональные слова:

agriculture, coordination, production, modern, genetics, physiology, botany, economics, system, experiment, natural, role, information, practice, principle, principal, manner.

10. Подберите к следующим словам:

а) синонимы:

- yield – field, soil, harvest, branch
- cultivate – plant, dig, till, sow, plough

б) антонимы:

- improve – make better, make worse, cultivate, grow
- include – till, plant, exclude, farm.

11. Переведите следующие производные существительные,

а) образованные от глаголов при помощи суффиксов -ment, -ion, -ation:

development, establishment (establish – устанавливать). improvement, treatment, cultivation, occupation, combination;

б) образованные от глаголов при помощи суффиксов -er, -or, -ing:

grower, experimenter, farmer, cultivator, translator, demonstrator, growing, planting, improving, farming, cropping;

в) образованные при помощи суффиксов -ture, -ness, -ist:

culture, future, lecture, mixture, richness, darkness, usefulness, physiologist, botanist, physicist, geneticist.

Грамматические упражнения

12. Укажите признаки следующих существительных:

1. A plant, the plant;
2. this plant, that plant;
3. their plant, our plant, its plant;
4. no plant, each plant, another plant, every plant, any plant;
5. the farmer's plant, the students' plant;
6. plantation, development, physicist, mixture, grower, cultivator, agronomist, darkness, culture;
7. the limit, of limit, each limit, any limit, this limit, no limit, to have limit.

13. В данных сочетаниях слов определите число существительных по определительным признакам и переведите сочетания:

a wild species, these wild species, those people are, this scientist's work was, these students' experiment is, those men were, these women are.

14. Найдите в следующих предложениях существительные, заимствованные из греческого и латинского языков. Назовите существительное в единственном и множественном числе и переведите предложения.

1. We saw the larvae on that crop in spring.
2. We observed this phenomenon under field conditions.
3. They found no fungi here.
4. This white larva feeds on the roots.
5. We can find many fungi on crop.
6. Some bacteria live in the soil.
7. The data are very important for crop production.
8. There are some plant analyses in plant physiology.

15. Переведите следующие предложения. Помните, что падеж существительного в русском переводе определяется стоящим перед английским существительным предлогом или местом существительного в предложении.

Образец: to see the plant	видеть растение
the plant grows	растение растёт
on the plant	на растении
to the plant	растению
in the plant	в растении

1. A modern **science** develops rapidly. Agronomy is **the science** of soils and crops. Under **science** we understand knowledge arranged in an orderly manner. The government **pays** great attention to the **science** of agronomy.

2. We visit the **farm**. The **farm** is large. They send new machines to the **farm**. The yields of the **farm** are high. There is a good agronomist on the **farm**.

16. Определите время глагола в следующих предложениях. Переведите предложения.

1. Scientists experimented, studied and wrote down their findings from good farming. 2. Students make many experiments in the laboratories. 3. The scientists did, do and will do much for the development of crop science. 4. Farmers began to improve farming and soil management centuries ago. 5. Agronomy treats of the principles and practice of crop production and field management.

17. Прочтите и переведите текст А.

AGRONOMY

Agronomy is the branch of agriculture that treats of the principles and practice of crop production and field management. The term “agronomy” is the combination of two Greek words “agros” (field) and “nomos” (management). Under the term “agronomy” we include soil science and crop science.

A modern science of agronomy was built up by coordination of knowledge of different sciences, such as genetics, physics, plant physiology, botany, chemistry, economics, and many others. Scientists experimented, studied and wrote down their findings from good farming. They made many experiments with different cultivated and wild species of plants and different systems of soil management.

A brilliant school of soil scientists developed in Russia under the leadership of V. V. Dokuchaev. Russian scientists found out for the first time that soils are individual natural bodies. N. I. Vavilov, a famous scientist, did much for the development of crop science.

Farmers began to improve farming and soil management. When they saw that poor farming practice gives poor yields.

18. Ответьте на вопросы.

1. What does agronomy treat of?
2. What do we include under the term “agronomy”?
3. What school of scientists developed in Russia under the leadership of V. V. Dokuchaev?
4. What did Russian scientists find for the first time?
5. What scientist did much for the development of crop science?
6. What practice gives poor yields?

Словарный список В

berry	n	ягода
efficient	a	эффективный
fruit	n	плод
grain	n	1. зерно 2. зерновая культура
grow (grew, grown)	v	выращивать, расти
grower	n	растениевод, фермер
growth	n	рост
growing	n	выращивание
high	a	высокий
important	a	важный
increase	n	увеличение, v увеличивать
influence	n	влияние, v влиять
leaf	n	лист
origin	n	происхождение, источник
originate	v	происходить
research	n	исследование, v исследовать
root	n	корень, v укорениться
seed	n	семя, v сеять
still	adv	по-прежнему, до сих пор, все еще

Синонимы:

crop production (растениеводство) = crop science = plant growing

efficient (эффективный) = effective

farmer (земледелец) = grower = agriculturist

originate (происходить) = come from

Антонимы:

high (высокий) – low (низкий)

increase (увеличивать) – decrease (уменьшать)

Лексические упражнения

19. Подберите правильный перевод к английским словам:

- | | |
|---------------|------------------------|
| 1. berry | I. высокий урожай |
| 2. grain | II. исследование |
| 3. growth | III. семя |
| 4. grow | IV. выращивать |
| 5. research | V. рост |
| 6. seed | VI. ягода |
| 7. high yield | VII. зерновая культура |

20. Подберите правильный перевод к русским словам:

- | | |
|------------------|--------------|
| I. корень | 1. efficient |
| II. растениевод | 2. increase |
| III. выращивание | 3. root |
| IV. влияние | 4. originate |
| V. происходить | 5. grower |
| VI. увеличивать | 6. growing |
| VII. эффективный | 7. influence |

21. Подберите правильное определение к английским терминам:

- | | |
|----------------|---|
| 1. a root | I. a small hard seed of some plants which are used for food |
| 2. a seed | II. the part of a plant which is under the ground |
| 3. a grain | III. to find out facts by scientific study |
| 4. to research | IV. that part of a plant from which a new plant will grow |

22. Заполните пропуски подходящими по смыслу словами.

1. Farmers must know factors which ... the plant... . 2. Collective farmers try to ... yields of crops. 3. Man started to ... crops hundreds of years ago. 4. People cannot live without 5. A lot of farm crops ... from wild species of plants.

Increase, grow, influence, originated, plants, growth.

23. Переведите следующие интернациональные слова:

information, document, recommendation, text, student, fundamental, primitive, laboratory, limit, production, farmer, practice, principle, agriculture.

24. Подберите к следующим словам

а) синонимы:

1. Farmer – driver, worker, grower, digger;

2. efficient – necessary, effective, difficult, low;
3. originate – appear, research, grow, come from;

б) антонимы:

1. high – efficient, wild, low, important;
2. increase – cultivate, use. seed, decrease.

25. Добавьте суффиксы существительных к следующим словам. Переведите полученные слова на русский язык:

- tion** – produce, cultivate, originate, collect, information, coordinate;
- ment** – develop, improve, manage;
- ness** – effective, rich, poor;
- er** – grow, research, read, write;
- ing** – crop, plant, include;
- ist** – science, botany, physiology.

Грамматические упражнения

26. Определите, чем является выделенное слово: глаголом или существительным.

1. Use: its use, their use, they can use, they use, the unit does not use, the unit uses it, does the unit use the energy?

2. Lift: its lift, they lift, their lift, these lifts, these lift, does the machine lift the seed?, the lift does not depend, these means lift it, the means lifts them;

3. Increase: its increase, their increase, they increase, the weight does not increase, the weight increase has, does the weight increase have an effect?, does the weight increase greatly?, the weight increases them.

27. Определите значение «s» у следующих слов:

grows, takes, soils, fields, man's life, farmer's textbook, people's needs, he cultivates, he includes, physics, economics, genetics.

28. Установите, какой английский предлог передает отношения, аналогичные русскому родительному падежу (кого, чего?), какой – творительному (кем, чем?), какой – дательному (кому, чему?), какой – предложному (о ком, о чем?):

about the farmer, to the farmer, by the farmer, of the farmer, to the method, of the method, about the method, by the method, with water.

29. Объясните, что означает «to» перед существительным и что перед глаголом:

to cultivate, to the cultivator, to the farm, to farm, to grow, to the grower, to plant, to the plant.

30. Переведите следующие двухкомпонентные сочетания слов.

Помните, что в таких сочетаниях последнее слово является ведущим существительным, а стоящее перед ним – его определением; напоминаем, что существительное в роли определения переводится:

а) *прилагательным*:

a farm animal – с.-х. животное; soil water – почвенная влага;

б) *существительным в родительном падеже*: plant protection – защита растений;

в) *существительным с предложом*:

weed control – борьба с сорняками.

Plant food, a food plant, plant species, plant growth, a farm crop, the crop yield, some field research, his laboratory research.

31. Переведите следующие многокомпонентные сочетания существительных. Обратите внимание, что перевод следует начинать с конечного (опорного) существительного и вести налево путем подстановки вопроса «какой, кого, чего?».

This soil management system, crop science development, the crop production recommendations, the farm crop production recommendations, the chemical analysis biological methods, field crop production, the large temperature differences, the large temperature use.

32. Дайте словарную форму следующих существительных и глаголов:

а) families, leaves, pages, species, notices, knives, classes, means, boxes, farms, news;

б) began, went, came, homed, could, was, were, had kept, formed, improved, knew, built, sent, placed, grew.

33. Приведите форму *Past Indefinite Tense* следующих глаголов:
to grow, to come, to go, to know, to write, to develop, to take, to improve, to see, to have, to be, to do.

34. Определите время глаголов в следующих предложениях. Переведите предложения.

1. Primitive man lived on leaves, roots, seeds, berries, and fruits.
2. This farm cultivates a limited number of crops.
3. Science will help to increase yields of crops.
4. Agronomy is the science of the production of farm crops.
5. We got some information of Roman agriculture from written documents.
6. Students of agriculture study factors which influence the plant growth.

35. Сделайте предложения утвердительными.

1. We do not know much of the origin of farm crop production.
2. Is agronomy the science of the production of farm crops?
3. Primitive man did not grow plants.
4. Does science help to increase yields of crops?
5. Did all important farm crops originated from wild species?
6. Shall we get high yields of crops?

36. Прочтите и переведите текст В.

FIELD CROP PRODUCTION

Agronomy is the science of the production of farm crops. We do not know much of the origin of farm crop production. Roman agriculture was the first of which we got some information from written documents. Primitive man did not grow plants. He lived on leaves, roots, seeds, berries, and fruits. Crop production began when man started to cultivate plants.

The early farmer cultivated a limited number of crops, but he grew some grain crops which a farmer grows at present. All important farm crops originated from wild species.

Science helped, helps and will help to increase yields of crops. Findings in field and laboratory research are leading to new recommendations for efficient crop production. The farmer who follows the most efficient practices will get high yields. The grower who still farms as his father did when he was a boy is the farmer who does not and will not get high yields of crops.

Every student of agriculture studies factors which influence the plant growth. This textbook presents some of the fundamental principles of soil management and field crop production.

37. Ответьте на вопросы.

1. What information did we get from written documents?
2. What did primitive man live on?
3. What crops does farmer grow at present?
4. What farmer will get high yields?
5. What helps to increase yields of crops?

КОНТРОЛЬНОЕ ЗАДАНИЕ

I. Прочтите и переведите текст С без словаря.

CROP PRODUCTION: PAST, PRESENT, FUTURE

The primitive farmer grew a limited number of crops. He did not grow all crops that he grows now.

Observations helped the farmer to improve his farming. From observations he learnt the best time, place and manner of cultivating crops.- At present observation still continues to help him to increase the "yields of his crops.

Agronomy had its beginning largely in the science of botany, chemistry, and physics. Botanical writings of cultivated plants began with Greek. Chemistry had its origin in ancient alchemy. Lavoisier, often called the father of chemistry, lived in about 1770. The first book on agricultural chemistry came out in 1813. Many agronomists became botanists, chemists, and experimenters.

All cultivated plants originated from wild species. Primitive man used for food more than 3000 species of plants. Now people do not use all those species. They use only some of them.

Crop production was, is and will always be important because crop products play great role in people's life.

II. Ответьте на вопросы:

1. What helped the farmer to improve his farming?
2. How did the farmer learn the best time, place and manner of cultivating crops?
3. In what sciences had agronomy its beginning?
4. When did Lavoisier live?
5. When did the first book on agricultural chemistry come out?
6. From what species did all main cultivated plants originate?
7. Why is crop production important?

III. Переведите на русский язык:

crop production, field management, soil science, farm crop, grain crop, wild species, high yields, cultivated field, farming practice; to increase, to improve, to develop, to farm, to research, to originate, to influence.

IV. Переведите на английский язык:

- а) с.-х. культура, корень, лист, ягода, поле, урожай, полеводство, отрасль, наука, растениеводство, почвоведение;
- б) растение, сажать, расти, рост, выращивание;
- в) ферма, обрабатывать землю, фермер, земледелие.

V. Назовите синонимы следующих слов:

ground, yield, cultivate, improve, farmer, crop production, efficient.

VI. Назовите антонимы следующих слов:

decrease, low, make worse, wild, exclude.

VII. Образуйте множественное число следующих существительных:

fungus, phenomenon, datum, bacterium, species, analysis.

VIII. Переведите на русский язык следующие существительные, обращая внимание на значение их суффиксов:

farmer	cultivation	management
observer	production	development
producer	irrigation	instrument
farming	usefulness	culture
growing	darkness	mixture
planting	richness	lecture
agronomist		
geneticist		
botanist		

LESSON 2

Тексты: A. Plants.

B. Plant Growth.

C. Annual, Biennial, Perennial Plants.

Грамматика: 1. Группа времен **Indefinite** в страдательном залоге.

2.оборот “**there + be**”

Словообразование: 1. Конверсия

2. Суффиксы глаголов **-en, -ize, -ate**

Словарный список А

absorb	v	поглощать, всасывать
activity	n	активность, деятельность
animal	n	животное
change	n	изменение, v изменять(ся)
clothing	n	одежда
condition	n	условие
connection	n	связь
dormant	a	бездействующий
favourable	a	благоприятный
feed	n	питание, корм
flower	n	цветок
germinate	v	прорастать
germination	n	прорастание
main	a	главный, основной
moisture	a	влага, влажность
part	n	часть

reproductive part		орган размножения
purpose	n	цель
serve	v	служить
shelter	n	кров, убежище
spread (spread, spread)	v	распространять(ся)
stem	n	стебель
storehouse	n	хранилище
supply	n	запас, снабжение, v снабжать
support	n	поддержка, v поддерживать

Синонимы:

feed (корм, питание) = food = forage

main (главный, основной) = basic = principal = chief

purpose (цель) = aim, object, end

supply (запас) = reserve

Антонимы:

absorb (поглощать, всасывать) – secrete (выделять), main (главный) – secondary (второстепенный), moisture (влажность) – dryness (сухость).

Упражнения для чтения

1. Прочтите и переведите слова и словосочетания из текста:

a) absorb, absorbed, absorption, absorbent; change, changed, changing; germinate, germination, germinating; reproductive, reproduction; a support, to support, a supporter; to serve, serving, served; to mature, matured, maturity; to require, required, requirement; moist, moisture; flower, flowering; during; enough; through; purpose; storehouse; oxygen; complete;

b) favourable conditions, under favourable conditions, under favourable conditions; they supply, a great supply, are supplied, will be supplied; are supported, were supported, about the support; they spread, they are spread, they will be spread; the change, the change dormant condition, the great changes; to germinate immediately, the germination of seeds, the germinating seeds of wild species; supplied with moisture, without moisture; are required, will be required, many requirements of plants, about the food requirement; a small embryo, besides embryo, lastly an embryo, enough to stimulate, enough for stimulation, enough for transformation; main purpose, the main purpose of agronomy, to have the reproductive purpose; serves, is served, was served, will be served.

2. Прочтите вслух слова и группы слов, обращая внимание на различное чтение -ate:

<i>у глаголов и прилагательных [eit]</i>	<i>у существительных [it]</i>
to graduate – оканчивать (учебное заведение)	a graduate – окончивший выс- шее уч. заведение
to radiate – излучать	radiate – лучистый
to estimate – оценивать	an estimate – оценка
to complicate – усложнять	complicate – усложненный
to associate – соединять	associate – объединенный

He graduates ... , he is a graduate ... , she will graduate ... , she was a graduate ... , they associated ... , this is an associate work ... , we must estimate ... , the estimate of seed ... , it will radiate ... , this is a radiate material ... , the complicated problem ... , it complicated the problem.

3. Прочтите следующие слова, обратив внимание на различие между английской и американской орфографией

<i>английская орфография</i>	<i>американская орфография</i>
plough	plow
favourable	favorable
labour	labor
colour	color
centre	center

Лексические упражнения

4. Подберите правильный перевод к английским словам.

1. Food	I. запас
2. feed	II. прорастание
3. germination	III. пища
4. germinate	IV. цель
5. dormant	V. корм
6. supply	VI. главный
7. main	VII. кров
8. purpose	VIII. бездействующий
9. shelter	IX. прорасть
10. support	X. поддерживать

5. Подберите правильный перевод к русским словам.

I. связь	1. reproductive part
II. между	2. change
III. изменение	3. animal

IV. животное	4. favourable
V. благоприятный	5. between
VI. влага	6. connection
VII. орган размножения	7. serve
VIII. стебель	8. moisture
IX. служить	9. stem
X. условие	10. condition

6. Подберите соответствующий перевод английского предложения.

1. Water and plant food are absorbed by plant roots from the soil.
2. Germination is the change of embryo from a dormant condition to the condition of activity or growth.
3. Roots and leaves of a plant are connected with the help of a stem.
4. The flowering plant consists of roots, stems, leaves and the reproductive part.
 - а) Цветковое растение состоит из корней, стеблей, листьев и органа размножения.
 - б) Влага и питательные вещества растений поглощаются корнями из почвы.
 - в) Корни и листья растения соединяются посредством стебля.
 - г) Прорастание – это переход зародыша из состояния покоя к активному состоянию или росту.

7. Подберите соответствующий перевод русского предложения.

- а) Многие виды растений размножаются с помощью семян.
- б) Многие виды культурных растений выращивались фермерами 3000 лет тому назад.
- в) Эти виды растений будут выращиваться в этом хозяйстве.
1. Many species of cultivated plants were grown by farmers 3000 years ago.

2. These species of plants will be grown on that farm.
3. Many species of plants are reproduced by seeds.

8. Заполните пропуски подходящими по смыслу словами.

1. The stem serves as a ... between the root and the leaves.
2. Embryo begins to ... at a definite temperature.
3. To absorb water and food from the soil is the chief ... of the root.
4. Plants ... man with food and clothing.
5. There are four main parts in each plant: ... and flower.

Purpose, connection, stem, leaf, germinate, supply, root.

9. Переведите следующие интернациональные слова:

embryo, reproductive, animalist, vegetation, temperature, classification, transformation, signal, final, result, pass, cycle, season, stimulate.

10. Подберите к следующим словам

а) синонимы:

1. Principal – normal, formal, basic, scientific,
2. purpose – object, subject, supply, support;

б) антонимы:

1. main – principal, favourable, secondary, important;
2. absorb – serve, spread, secrete, support.

11. Переведите следующие пары слов, относящиеся к разным частям речи:

a plant – to plant, a seed – to seed, a place – to place, a need – to need, a supply – to supply, a support – to support, a change – to change.

12. Переведите следующие производные слова:

а) глаголы, образованные от прилагательных при помощи суффикса **-en** и префикса **en-**.

Sadden (sad – печальный), redden, widen (wide – широкий), golden (gold – золотой), blacken, thicken, darken, ripen (ripe – зрелый), loosen (loose – рыхлый) worsen (worse – хуже), lessen (less – меньше), shorten, fasten (fast – быстрый), moisten (moist – влажный), whiten; enlarge, enrich, enable, enfeeble (feeble – слабый), enforce (force – сила);

б) глаголы, образованные при помощи суффикса **-ize**.

Mechanize, organize, collectivize, centralize, monopolize, specialize, systematize, localize, socialize.

Грамматические упражнения

13. Переведите следующие сочетания слов. Помните, что если сказуемое в предложении выражено глаголом в страдательном залоге, то подлежащее не производит действие, а является объектом действия.

The plant grows

The plant supplies

The plant is grown

The plant is supplied

Crops spread

Food gives

Crops are spread

Food is given

Seeds produce

The growth influences

Seeds are produced

The growth is influenced

14. Переведите следующие сочетания слов. При переводе обратите внимание на время глагола-сказуемого, выраженного глаголом в страдательном залоге.

The plants are grown ... Many species of plants were grown ... New species of plants will be grown ... Seeds are often used ... Seeds were often

used ... Seeds will be used ... Most of our crops were cultivated ... Many crops are cultivated... .

15. Переведите следующие предложения, обращая внимание на перевод глагола-сказуемого. Сопоставьте перевод глаголов, выраженных в страдательном залоге с глаголами и действительном залоге.

1. Plants produce the most of our food and clothing. Our food and clothing are mainly produced by plants. 2. The roots of a plant absorb water and plant food from the soil. Water and plant food are absorbed from the soil through roots. 3. The stem supports the leaves and flower parts of most plants. The leaves and flower parts of most plants are supported by the stem. 4. Man and animals often use seeds as food. Seeds are often used as food for man and feed for animals.

16. Прочтите и переведите текст А.

PLANTS

Plants play a great role in people's life. They supply us with food, clothing, and shelter. Our food and clothing are mainly produced by plants.

The flowering plant consists of four main parts: 1) root, 2) stem, 3) leaf, 4) and the reproductive part which is made of flowers and seeds.

The root. The main purpose of the root is to absorb water and plant food from the soil. Under favourable conditions water and plant food are absorbed from the soil through roots.

The stem. The plant stem serves as a connection between roots and leaves. The leaves and flower parts of most plants are supported by the stem. The stem may serve as a most important storehouse of energy.

The flower and seeds. Most of our plants are spread by seeds. Seeds are often used as food for man and feed for animals. Under favourable conditions dormant plant or embryo begins to grow. The change from dormant condition to a condition of activity or growth is known as germination. Embryo begins to germinate when a seed is supplied with moisture, warmth, and air.

Over 3000 species of plants were grown by primitive farmer. Still more species are and will be grown by modern farmer.

17. Ответьте на вопросы:

1. What plays a great role in people's life? 2. What do plants supply us with? 3. What does the flowering plant consist of? 4. What are the functions of roots (stems, flowers and seeds)?

Словарный список В

annual	a	однолетний
besides	adv.	кроме того
biennial	a	двулетний
complete	v	заканчивать, завершать
during	adv.	в течение
lastly	adv.	наконец
lodge	v	полежать
mature	a	зрелый, спелый, v созреть
maturity	n	зрелость
need	n	нужда, v нуждаться
next	a	следующий
oxygen	n	кислород
perennial	a	многолетний
provide	v	обеспечить
require	v	требовать
ripe	a	зрелый
ripen	v	зреть, созреть
stage	n	стадия
through	prep	через, сквозь
tuber	n	клубень
within	prep	в; внутри

Синонимы:

complete (завершать) = finish; enough (достаточный) = sufficient;
lastly (наконец) – at last; mature (зрелый) = ripe; maturity (зрелость) = ripeness; need (нуждаться) = require.

Антонимы:

complete (заканчивать) – begin (начинать); within (внутри) – outside (снаружи).

Лексические упражнения

18. Подберите правильный перевод к английским словам:

- | | |
|-------------|------------------|
| 1. enough | I. обеспечивать |
| 2. during | II. стадия |
| 3. mature | III. в течение |
| 4. biennial | IV. двулетний |
| 5. stage | V. урожай |
| 6. yield | VI. нуждаться |
| 7. need | VII. достаточный |
| 8. provide | VIII. зрелый |

19. Подберите правильный перевод к русским словам:

- | | |
|----------------|----------------|
| I. многолетний | 1. requirement |
| II. прорасти | 2. cycle |
| III. цикл | 3. last |
| IV. последний | 4. besides |
| V. требование | 5. oxygen |
| VI. кроме того | 6. field |
| VII. кислород | 7. germinate |
| VIII. поле | 8. Perennial |

20. Подберите правильное определение английским словам:

- | | |
|----------------|--|
| 1. a cereal | I. any plant of the family of Leguminous |
| 2. a legume | II. the falling over of plants |
| 3. a lodging | III. to have a tendency |
| 4. to tend | IV. a condition of complete development and growth |
| 5. to lower | V. a plant which produces grain |
| 6. nature | VI. to reduce |
| 7. germination | VII. the growth of the embryo in the seed |
| 8. biennial | VIII. a plant that lives two years |

21. Заполните пропуски подходящими по смыслу словами.

1. Germination, the ... of vegetative parts and reproduction are three main ... of plant growth. 2. A mature ... consists of a small ... and a supply of plant food. 3. Some plants ... their life cycle within one season. 4. ... are such plants which need two years to end their cycle of growth. 5. A seed will ... well under proper conditions.

Stages, seed, biennials, development, embryo, complete, germinate.

22. Добавьте окончания глаголов к следующим словам.

Переведите на русский язык полученные слова:

- en – black, red, short, white;
- ize – formal, standard, collective, organ;
- en – large, rich, circle, numeration.

23. Выделите суффиксы и определите, к какой части речи принадлежат следующие слова:

characterize, temperature, teacher, director, chemist, session, experiment, winterize, signalize, hardness, winner, specialist, harden, thinking, doctor, motorist, liken, idealize, idealization, fullness, darkness, fulfillment, cutting, movement, culture.

Грамматические упражнения

24. Переведите следующие сочетания слов, обращая внимание на то, что местоимение определяет, является ли стоящее перед ним (или после него) слово глаголом или существительным.

a) 1. We work, our work, its work, it works, his work, he works, these works, their work.

2. He experiments, his experiments, they experiment, their experiment, the experiment, some experiment, any experiments.

b) 1. Its form, they form, it forms, their forms, these forms, the form, the surface forms it, particles form them;

2. It presents, its present use is, they present, the paper presents it, diagram presents them;

3. Its power, they power, their power, it powers, these powers, these power, the energy powers them.

25. Переведите следующие сочетания слов, включающие глаголы в страдательном залоге. Учитывайте, что перевод данных глаголов в русском и английском языках не совпадает.

Образец: The cultivation of crops **is influenced**.

На возделывание культур влияет...; the life cycle of a plant is influenced ... , the life cycle of a plant was influenced ..., the life cycle of a plant will be influenced... , the plant growth is affected ... , the plant growth was affected ... , the plant growth will be affected; the cultivation of wild plants is followed ...; the cultivation of wild plants was followed..., the cultivation of wild plants will be followed ... ; the question is answered ... , the question was answered ... , the question will be answered.

26. Переведите следующие сочетания слов и предложения, содержащие глаголы в страдательном залоге. Обратите внимание на перевод глагола, после которого следует предлог.

Образец: The problem is spoken about.

Об этой проблеме говорят.

1. The germination of seed is acted upon by

2. What is this plant used for?

3. A brilliant school of Russian soil scientists is much written about.

4. Crop production problems are worked at.

27. Переведите следующие предложения, включающие глагол в страдательном залоге. Обратите внимание на перевод глагола-сказуемого.

1. The plants that complete their cycle of growth within one season are called annuals. 2. There are plants which are known as biennials and

perennials. 3. The young plant (embryo) will be fed by the food supply during the first stage of its life. 4. Three conditions were needed for the germination of seed. 5. Oxygen is needed to transform the food supply into the energy that will be required for plant growth. 6. The plant growth is influenced by climatic conditions. 7. Some fundamental principles of field crop production will be spoken about in this textbook. 8. The development of crop science was greatly influenced by the ideas of V. Dokuchaev.

28. Переведите следующие предложения. Помните, что глагол *to be* перед инфинитивом при подлежащем, выраженном словами: task (задача), problem (проблема), function (функция), purpose (цель) и т. д. переводится словами «состоит в том, чтобы» и т. д.

Образец: The problem is to improve farming.

Проблема состоит в том, чтобы улучшить земледелие.

1. The function of a stem is to connect roots and leaves. 2. The purpose of the root is to absorb water and plant food from the soil. 3. The task of collective farms was to get high yields of crops. 4. The first task of plant physiology was to study the plant life. 5. The purpose of that work was to study the effect of temperatures upon the germination of seed.

29. Переведите предложения, содержащие оборот “*there+be*”. Помните, что в таком обороте *there* теряет свое основное значение „там”, а только показывает, что подлежащее находится после сказуемого, которое находится в центре внимания.

Образец: There are many farm crops.

Имеется много сельскохозяйственных культур.

1. There are wild and cultivated species of plants. 2. There are plants which need two years to complete their life cycle of growth. 3. There are plants which are known as perennials. 4. There are moisture, warmth and air for germinating seed. 5. There are many factors which influence the growth of all plants.

30. Прочтите и переведите текст В.

PLANT GROWTH

During its growth a plant passes through three stages: germination, the development of vegetative parts, and flowering with final production of seed. Some plants complete their cycle of growth within one season. Those plants are called annuals. There are plants which need two years to complete their cycle of growth. Such plants are called biennials. Besides, there are plants which are known as perennials as they need more than two seasons to complete the growth cycle.

The first stage of plant growth is the germination of the seed. A mature or ripe seed consists of a small embryo and a supply of plant food. The young plant will be fed by this food supply during the first stage of its life.

Three conditions are needed for the germination of seed. The first is a supply of water which is absorbed by the seed. Next, the temperature must be high enough to stimulate the plant growth. Lastly, a supply of air from which the oxygen is got is necessary for the germinating seed and the growing embryo. Oxygen is needed to transform the food supply into the energy that will be required for plant growth. The germination of seed is influenced by these three conditions.

A seed will not germinate if it is not provided with moisture, warmth, and air.

31. Найдите в тексте ответы на следующие вопросы:

1. Через какие стадии проходит растение в течение своего роста?
2. Какие растения называются однолетними, двухлетними и многолетними?
3. Какие условия требуются для прорастания семян?
4. Для чего необходим растениям воздух?

КОНТРОЛЬНЫЕ ЗАДАНИЯ

I. Прочтите и переведите без словаря текст С.

ANNUAL, BIENNIAL AND PERENNIAL PLANTS

All cultivated and wild plants are classified as annuals, biennials and perennials.

Annuals. There are plants that start their growth in the spring or summer, flower, reproduce themselves and die with maturity or when coming of frost or other unfavourable conditions. These are annual plants. Annual is a plant which completes its life cycle during the same year. Many of our most important crops, such as grain crops, are included in this group.

Biennials. These are plants which complete their life cycle in two years. Plants of this type produce leaves and well developed roots the first year; stems, flowers and seeds will be produced the second year and their life cycle will be completed.

Perennials. Plants which live more than two years are known as perennials. Many of farm crops are perennials. Perennial plants are reproduced with the help of seeds, roots, tubers.

The growth of all plants is greatly influenced by many factors, such as plant food, water, temperature, air, and others.

II. Найдите в тексте С английский перевод следующих предложений.

1. Все культурные растения подразделяются на однолетние, двулетние и многолетние. 2. Однолетнее растение – это растение, которое заканчивает свой цикл развития в течение одного года. 3. Двулетние растения – это растения, которые проходят свой цикл развития в течение двух лет. 4. На рост всех растений влияют многие факторы, такие как питание, влага, температура, воздух и другие.

III. Переведите на английский язык:

заканчивать цикл роста, через три стадии, зрелые семена, запас питательных веществ, рост растений, прорастание семян, растения размножаются семенами, при благоприятных условиях.

IV. Назовите синонимы следующих слов:

sufficient, need, ripeness, mature, finish, purpose, supply, main, food.

V. Назовите антонимы следующих слов:

complete, within, main, dryness, absorb.

VI. Переведите на русский язык следующие глаголы:

blacken, ripen, shorten; enlarge, enrich, enforce; yield, plant, farm, place, supply, change; mechanize, organize, monopolize, normalize.

VII. Переведите на русский язык слова, относящиеся к разным частям речи.

A change – to change, a supply – to supply, a yield – to yield, a need – to need, a plant – to plant, a crop – to crop.

VIII. Выделите суффиксы и определите, к какой части речи относятся слова. Переведите.

Development, temperature, specialist, signalize, richness, cultivation, redden, growing, enrich, enrichment, farmer.

IX. Переведите следующие сочетания слов и предложения, включающие

а) глаголы в страдательном залоге:

1. Flowers are grown in ... 2. Soil management is improved by ... 3. Many experiments were made in ... 4. Oxygen is needed to ... 5. The plant growth is influenced by ... 6. This crop is spoken about;

б) глагол *to be* перед инфинитивом:

1. The purpose of this work is to study wild species of plants of the region. 2. The task was to increase grain production. 3. The purpose is to have much grain.

в) оборот *there + be*:

1. There are many wild species of plants. 2. There are cultivated and wild plants. 3. There were two different crops on the farm. 4. There will be a high temperature in the room.

LESSON 3

Тексты: A. Plant Nutrients

B. Effect of Nutrient Elements on Plant Growth

C. Phosphorus

Грамматика: 1. Прилагательное и его грамматические формы

2. Наречие и его грамматические формы

3. Слова-заменители существительных **that** и **one**

Словообразование: 1. Суффиксы прилагательных:

-al, -ic, -ant, -ent, -less, -ous, -full, -y, -able, -ive

2. Суффиксы наречий: **-ly, -ward(s)**

Словарный список А

abundant	a	обильный
amount	n	количество
area	n	площадь, район
arid	a	засушливый
available	a	доступный
availability	a	доступность
at least		по крайней мере
collectively	adv.	совместно
contain	v	содержать
deficiency	n	недостаток, дефицит
deficient	a	недостаточный, дефицитный
essential	a	существенный
humid	a	влажный
low	a	низкий
lower	v	понижать
meet	v	удовлетворять
nutrient	n	питательное вещество
proper	a	правильный, надлежащий
quantity	n	количество
refer	v	ссылаться на что-либо
semiarid	a	полузасушливый
tissue	n	ткань
trace element	n	микроэлемент

Синонимы:

arid (засушливый) = dry

nutrient (питательное вещество) = plant food

trace element (микроэлемент) = microelement

Антонимы:

abundant (обильный) – poor (скудный, бедный), adequate (соответствующий) – inadequate (несоответствующий), available (доступный) – unavailable (недоступный), deficiency (недостаток) – abundance (обилие), humid (влажный) – dry, arid (сухой), major element (макроэлемент) – microelement (микроэлемент).

УПРАЖНЕНИЯ

Упражнения для чтения

1. Прочтите вслух слова и словосочетания из текста урока, представляющие трудность для чтения.

a) Abundant, amount, area, available, avail, availability, deficient, deficiency, essential, humid, nutrients, proper, quality, semiarid, tissue, cereal, cause, caused, causing, healthy, lodging, sufficient, while, at least, usually, collectively;

b) plant nutrients, required plant nutrients, absorbed plant nutrients, essential plant nutrients, the tissue of plants, in the tissue of plants, found in the tissue of plants, the essential supply, the adequate essential supply of, contains adequate amounts, available nutrients, unavailable nutrients, to require available nutrients, the availability during the growth, the less availability, their low availability, deficient in semi- arid regions, sufficient in the most humid areas, the proper growth of cereals, the older tissues, from the older tissues, maturity of the cereals, phosphorus deficient symptoms, nitrogen sufficient symptoms, the potassium deficiency causes.

2. Прочтите вслух слова – наименования химических элементов.

Br	boron	бор
Ca	calcium	кальций
C	carbon	углерод
Cl	chlorine	хлор
Co	cobalt	кобальт
Cu	copper	медь
H	hydrogen	водород
I	iodine	йод
Fe	iron	железо
Md	molybdenum	молибден
Mg	magnesium	магний
Mn	manganese	марганец
N	nitrogen	азот

O	oxygen	кислород
P	phosphorus	фосфор
K	potassium	калий
Na	sodium	натрий
S	sulphur	сера
Zn	zinc	цинк

Лексические упражнения

1. Подберите правильный перевод английским словам:

- | | |
|---------------|--------------------------|
| 1. tissue | I. правильный |
| 2. quantity | II. влажный |
| 3. humid | III. низкий |
| 4. low | IV. понижать |
| 5. lower | V. дефицит |
| 6. deficiency | VI. питательное вещество |
| 7. proper | VII. количество |
| 8. nutrient | VIII. ткань |

2. Подберите правильный перевод к русским словам:

- | | |
|-------------------|-----------------|
| I. полусушливый | 1. abundant |
| II. удовлетворять | 2. iron |
| III. содержать | 3. available |
| IV. доступный | 4. meet |
| V. доступность | 5. semiarid |
| VI. обильный | 6. contain |
| VII. железо | 7. availability |

3. Заполните пропуски подходящими по смыслу словами:

1. Fifteen elements are ... for proper plant growth.
2. These are very ... elements.
3. They are found in large ... in the tissue (texture) of plants.
4. Good soils meet the ... of the plant when it grows.
5. ... is a trace element. *Important, requirements, boron, essential, quantity.*

4. Переведите следующие интернациональные слова:

element, microelement, maximum, period, mineral, tendency, result, arrest, concentrate, adequate, symptom.

5. Подберите к следующим словам и словосочетаниям

a) *синонимы*:

1. abundant crop – low crop, green crop, heavy crop, poor crop;
2. trace element – essential element, major element, microelement;
3. reserve – supply, food, support;
4. major – poor, basic, high;

5. requirement – need, element, development;

б) *антонимы*:

1. humid – arid, poor, high;

2. abundant – available, deficient, poor;

3. more – most, less, best;

4. available – efficient, major, unavailable.

6. Переведите следующие производные прилагательные, образованные при помощи суффиксов:

-ic, -al, -ous, -y, -able, -ive, -full, -less, -ent, ant.

Помните, что прилагательные отвечают на вопрос «какой?».

a) Economic, climatic, democratic, scientific, periodic, specific, logic, biologic, symbolic, organic;

b) agricultural, formal, central, cultural, industrial;

c) fibrous (fiber – волокно), nutritious, infectious, continuous, serious;

d) leafy, rocky (rock – камень), rainy, sunny, salty, watery;

e) suitable (suit – подходить), valuable (value – ценить);

f) active, reproductive, intensive, productive, primitive, progressive, protective;

g) useful – useless, helpful – helpless, careful – careless;

h) different, present, absent, important, distant, constant.

7. Переведите следующие производные наречия, образованные при помощи суффиксов *-ly, -ward(s)*. Помните, что наречия отвечает на вопрос «как, каким образом, когда?».

a) Especially, mainly, completely, greatly, really, naturally, newly, regularly, usually, attentively, easily, nicely, slowly, unusually;

b) toward(s), forward(s), upward(s), downward(s), eastward(s), westward(s).

Грамматические упражнения

8. Напишите исходные формы следующих прилагательных:
less, lowest, higher, smaller, poorer, most, worst, least, best.

9. Образуйте сравнительную и превосходную степень сравнения следующих прилагательных:

little, good, bad, much, important, poor, available, essential, low, high, humid.

10. Переведите следующие словосочетания, обращая внимание на формальные признаки степеней сравнения прилагательных:

rich soil

large field

richer soil

larger field

the richest soil	the largest field
humid area	good system
more humid area	better system
the most humid area	the best system
available nutrient.	bad practice
less available nutrient	worse practice
the least available nutrient	the worst practice

11. Переведите следующие сочетания слов, обращая внимание на форму прилагательного.

- | | |
|------------------------------------|-----------------------------------|
| a) ... is more distant than ... | b) ... is much higher than... |
| ... is lighter than ... | ... is far lower than ... |
| ... is more available than ... | ... is far more important than... |
| ... is worse than ... | |
| ... is far less important than ... | |
| c) ... is as high as ... | ... is not so important as ... |
| ... is not so high as ... | ... is as great as ... |
| ... is as important as ... | ... is not so great as ... |

12. Переведите предложения, включающие конструкцию типа *the more ... , the less*.

1. The more we study nature, the more we know about it. 2. The more legumes are grown, the lower is the potassium level of soils. 3. The more we know about plant nutrients, the better we can supply our crops with them. 4. The less are the amounts of nutrients, the poorer is the plant growth.

13. Прочтите и переведите текст А.

PLANT NUTRIENTS

There are at least 15 elements which are essential for proper plant growth. The most important elements are nitrogen, phosphorus, potassium, oxygen, carbon, hydrogen, iron, copper, zinc, and others. Some of these elements, such as calcium, potassium, nitrogen, phosphorus and sulfur are found in the largest quantities in the tissue of plants. They are called macroelements. Other elements, such as copper, manganese, zinc, boron, molybdenum found in lesser amounts are called microelements or trace elements. Collectively, the 15 essential elements are usually referred to as "plant nutrients" or "plant food".

An adequate supply of plant nutrients is absolutely necessary to maximum agricultural production. Plants can absorb plant nutrients which are present in the soil in available form. Good soils contain adequate

amounts of available nutrients to meet the requirements of the crop plant during all periods of growth. The more available the plant nutrients are, the better the plant growth is. The less the amounts of available nutrients, the poor is the plant growth.

Elements may be deficient in soils or their availability may be low. As a rule, mineral elements are abundant in semiarid regions and deficient in the most humid areas.

14. Ответьте на вопросы.

1. What elements are called macroelements?
2. What elements are referred to as “plant nutrients”?
3. What is absolutely necessary to maximum agricultural production?
4. In what form can plants absorb plant nutrients?
5. In what regions are mineral elements abundant in the soil?

Словарный список В

cause	n	причина, в причинять, вызывать
cereals	n	злаки, зерновые хлеба
fruiting	n	плодоношение
healthy	a	здоровый
late	a	поздний
legume	n	бобовое растение
level	n	уровень
like	a	подобный
lodging	n	полегание
occur	v	происходить
quality	n	качество
rapid	a	быстрый
result	v	кончатся
result from	v	следовать, проистекать от
result in	v	приводить к чему-либо
sufficient	a	достаточный
tend	v	вести к чему-либо
while	adv	пока, в то время как

Антонимы:

late (поздний) – early (ранний)

result in (приводить к) – result from (происходить от)

sufficient (достаточный) – deficient (недостаточный)

Лексические упражнения

15. Подберите правильный перевод к английским словам:

- | | |
|---------------|--------------------|
| 1. while | I. уровень |
| 2. sufficient | II. здоровый |
| 3. level | III. подобный |
| 4. healthy | IV. вести к |
| 5. like | V. достаточный |
| 6. tend | VI. в то время как |

16. Подберите правильный перевод к русским словам:

- | | |
|-------------------|-------------|
| I. полегание | 1. fruiting |
| II. бобовые | 2. late |
| III. плодоношение | 3. early |
| IV. поздний | 4. cause |
| V. ранний | 5. lodging |
| VI. причинять | 6. legumes |
| VII. железо | 7. iron |

17. Заполните пропуски подходящими по смыслу словами.

1. Plants require large ... of potassium. 2. Different crops ... different amounts of it. 3. Adequate ... of nitrogen is quite necessary. 4. The large supply of nitrogen in the soil causes.... 5. Deficiency of this element ... lower production.

Remove, amounts, lodging, results in, supply.

2. Переведите следующие интернациональные слова:

effect, element, nitrogen, absolute, adequate, tendency, deficient, result, production, part, absorb, fruit, phosphorus.

3. Подберите к следующим словам

а) синонимы:

1. Amount – quantity, quality, absolutely, largely;
2. essential – difficult, different, adequate, important;
3. rapidly – largely, healthy, poorly, quickly;
4. seeding – harrowing, harvesting, planting, weeding;

б) антонимы:

1. late – in time, during, early, such;
2. like – different, efficient, high, depth;
3. healthy – heavy, light, unsound, various;
4. deficient – development, efficient, sufficient, essential.

4. Переведите следующие наречия, образованные от прилагательных:

usual	обычный	usually
easy	легкий	easily
high	высокий	highly
possible	возможный	possibly
first	первый	firstly
quick	быстрый	quickly
actual	фактический	actually
real	действительный	really

5. Переведите наречия, образованные при помощи суффикса *ward(s)*. Помните, что данный суффикс означает «направление».

north	север	northward
sun	солнце	sunward
back	спина	backward
west	запад	westward

6. Выделите суффиксы и определите, к какой части речи относятся следующие слова:

academic, heroic, central, natural, beautiful, harmful, active, movable, various, windy, brilliant, dependent, southward.

7. Переведите следующие сочетания слов, содержащие слова одного словообразовательного ряда:

a) *differ v, different a, difference n*

to differ in size, to differ in resistance, different species, different insects, different kinds, the difference in resistance, the difference in use, the difference in means of cultivation;

b) *proper a, properly adv, property n*

a proper use, a proper plant growth, a proper cultivation, a proper practice, a proper development, to use the method properly, to grow crops properly, to cultivate properly, the property of an element, the property of a material.

Грамматические упражнения

8. Переведите следующие предложения, включающие конструкцию типа «*the shorter . . . , the longer*».

1. The richer (are) the soils, the higher (are) the yields.
2. The heavier (is) the soil, the more cultivation it requires.
3. The longer (are) the days, the shorter (are) the nights.
4. The further from the equator, the greater the length of day light in summer.
5. The more we know about the plants, the better we can determine their requirements in plant food.

9. Переведите предложения, включающие конструкции «as ... as», «not so ... as».

1. The range of the temperature of the air is not so great as the range of the temperature of the ground. 2. Phosphorus is as important for proper growth of plants as nitrogen and potassium. 3. Nitrogen must be as available to plants as other nutrient elements. 4. Microelements in the soil are as essential as macroelements.

10. Переведите следующие предложения, включающие слово «one». Заметьте, что «one» в одних случаях является словом-замениателем, а в других – числительным.

1. This is **one** of the most important farm *crops*. 2. While cereals absorb the least amounts of potassium, legumes take in the largest **ones**. 3. Phosphorus from the older tissues moves to the younger **ones**. 4. The lower leaves are the older **ones**. 5. Some species of plants absorb smaller quantity of phosphorus than other **ones**. 6. Phosphorus is **one** of the most essential nutrients of plants. 7. Nitrogen, phosphorus and potassium are chemical elements, they are the most essential **ones** for plant growth. 8. There is only **one** high building on this collective farm.

11. Переведите следующие предложения. Обратите внимание, что слова «that» и «those», если у них есть определение, выступают в качестве заместителя существительного.

1. Adequate supply of nitrogen is as essential for proper plant growth as **that** of phosphorus. 2. The yield of cereals was not so high at **that** of legumes. 3. The climatic conditions of **that** region are as favourable for growing wheat as those of our region. 4. The amounts of trace elements in the soil are less than **those** of macroelements. 5. Most of plants require phosphorus in quantities that are much smaller than **those** of nitrogen and potassium.

12. Переведите на русский язык, обращая внимание на слово «most». Запомните, «most» переводится «самый, наиболее», когда стоит перед прилагательным и «most (of)» переводится «большинство», когда стоит перед существительным.

1. This is the **most** productive crop in their region.
2. **Most** of farms have good soils.
3. Nitrogen, phosphorus and potassium are the **most** essential elements for plant growth.
4. **Most** of the plants spread with the help of seeds.
5. **Most** seeds germinate slowly below 3–5 °C.
6. The optimum temperature for **most** of grains is about 24–28 °C.

13. Прочтите и переведите текст В.

EFFECTS OF NUTRIENT ELEMENTS ON PLANT GROWTH

Nitrogen is absolutely essential to proper plant growth. Plants grown on soils with sufficient amount of available nitrogen make a good rapid growth with a healthy green colour. Adequate supply of nitrogen has a tendency to increase stem and leaf development. Deficiency of this element results in plants of poorer colour, poorer quality, and lower production. Too heavy supply of nitrogen in the soil tends to cause lodging, late maturity, and poor seed development.

Adequate amounts of phosphorus in soils produce rapid plant growth and early fruiting or maturing. Phosphorus, like nitrogen, is found in the growing parts of plant, the flower and the seed.

Plants require large amounts of potassium, one of the most essential elements for better plant growth. Different crops remove different amounts of it from the soil. While cereals remove the least amounts of potassium, legumes absorb the largest ones and largely lower the available potassium level of soils. The more legumes are grown, the lower is the potassium level of soils.

14. Найдите в тексте английский перевод следующих предложений:

1. Растения, выращиваемые на почвах с достаточным количеством доступного азота, быстро растут.
2. Слишком большое содержание азота в почве имеет тенденцию вызывать полегание.
3. Растение требует большого количества калия.
4. Злаковые берут наименьшее количество калия из почвы.

КОНТРОЛЬНЫЕ ЗАДАНИЯ

I. Прочтите и переведите без словаря текст С.

PHOSPHORUS

Phosphorus is as important for proper growth of plants as nitrogen and potassium. Most of plants require phosphorus in quantities that are much smaller than those of nitrogen and potassium.

Phosphorus is present in all living tissues. It is concentrated in the younger parts of the plant, in flowers and seeds. An adequate supply of phosphorus early in the life of the plant is very important. Its importance to growth has long been known. Growth is arrested when the supply of phosphorus in the soil is very low, and phosphorus from the older tissues

moves to the younger ones. Usually, symptoms of little phosphorus appear first in the lower leaves which are the older ones. A deficiency of this element may stop maturity of the plant.

Some species of plants absorb smaller quantity of phosphorus, than other ones.

Phosphorus is one of the most essential nutrients of plants. The more we know about the plant requirements of phosphorus, the better we can supply our crop plants with it.

II. Используя данные вопросы к тексту в качестве плана, пере-скажите текст.

1. What is as important for proper growth of plants as nitrogen and potassium?

2. In what quantities do plants require phosphorus?

3. In what parts of the plant is phosphorus concentrated?

4. What occurs when the supply of phosphorus in the soil is very low?

5. Where do symptoms of little phosphorus first appear?

III. Переведите на русский язык:

available, availability, deficient, deficiency, nutrient, semiarid, tissue, a cause, to cause, lodging, late, early, level, amount, quality, essential.

IV. Назовите синонимы следующих слов:

nutrient, trace element, reserve, major, requirement, arid.

V. Назовите антонимы следующих слов:

deficiency, humid, abundant, available, early, result in.

VI. Переведите следующие наречия, образованные при помощи суффиксов -ward, -ly.

Homeward, sideward (side – сторона), shoreward (shore – берег), earthward, inward, north-eastward, southeastward, northwestward, outward;

highly, badly, largely, namely, purposely, monthly, daily, manly, womanly, fatherly, motherly.

VII. Образуйте наречия от следующих прилагательных:

distinct, uniform, chief, vital, slight, total, relative, gradual, comparative, regular, usual.

VIII. Переведите следующие прилагательные, обращая внимание на суффиксы.

principal	different	valuable	powerful
equal	efficient	available	careful
natural	important	possible	useful
useless	active	various	rainy
helpless	extensive	numerous	sunny
rainless	intensive	dangerous	windy

IX. Переведите следующие сочетания слов:

- a) much larger, much higher, much easier, less fertile, more essential;
- b) the richer ... the higher..., the more ... the better .. ., the shorter... the longer, as good as, as fertile as, not so rich as;
- c) the worst results, the least amounts, the highest yield, the lowest fertility, the best method.

X. Переведите предложения, обращая внимание на функции слов *one, that, those*.

1. This combine works better than the old one. 2. This element is more available than that one. 3. Plants absorb inorganic matter and manufacture organic ones. 4. One of the main tasks of every student of agriculture is to learn everything about plant growth. 5. The earth is more than one million times smaller than the sun. 6. The tissues of flowers and seeds are much younger than those of stems.

XI. Ответьте на следующие вопросы:

- 1. Как отличить прилагательное от наречия?
- 2. По какому признаку мы отличаем в словаре прилагательное от наречия?

LESSON 4

Тексты: A. Soil and Soil Types
B. Soils of Great Britain
C. The Soil Conditions

Грамматика: 1. Модальные глаголы
2. Функции глагола **to be**
3. Инфинитив. Инфинитив-подлежащее, инфинитив-обстоятельство
4. Числительные.

Словообразование: Приставки **sub-, over-, trans-, inter-, co-**.

Словарный список А

appearance	n	внешний вид
clay	n	глина, глинозем
compose	v	составлять
earth	n	земля, почва, грунт
granular	a	зернистый, гранулированный
gravel	n	гравий
layer	n	слой, пласт

surface layer		поверхностный слой
loam	n	суглинок
clay loam		иловатый суглинок
sandy loam		песчаный суглинок
silt loam		пылеватый суглинок
loose	a	рыхлый
matter	n	вещество
particle	n	частица, крупица
peat	n	торф, торфяник
rock	n	горная порода
rot	n	гниль, гниение, v гнить, загнивать
sand	n	песок
silt	n	ил, осадок
soil	n	почва
clay soil		глинистая почва
heavy soil		тяжелая почва
humus soil		почва, богатая гумусом
light soil		легкая почва
sandy soil		песчаная почва
sticky	a	липкий, клейкий
surface	n	поверхность
texture	n	1) механический (гранулометрический) состав,

2) текстура

weathering	n	выветривание, эрозия
------------	---	----------------------

Синонимы:

compose (составлять) = make up; earth (земля) = land; matter (вещество) = material, substance; rot (гниль) = decay

Антонимы:

compose (составлять) – decompose (разлагать); light (легкий) – heavy (тяжелый); loose (рыхлый) – compact (плотный).

УПРАЖНЕНИЯ

Упражнения для чтения

1. Прочтите вслух слова и словосочетания из текста урока, представляющие трудность для чтения.

a) Appear, appeared, granular, granulated, granulating, loam, particle, part, partly, peat, weather, weathering, rock, rot, rotted, rotting, loose, loosed, loosing, loosen, loosened, loosening, sand, surface, compose, composed, composing, composite, composition, composer, decompose, de-

composed, decomposing, decomposition, texture, mix, mixed, mixing, mixer;

b) the loose surface, to loosen a surface, the loose surface layer; to weather, weathering, weather; with water, water need; temperature changes, soil temperature proportion, the relative proportion, upon the relative proportion of soil; particles, fine particles, very fine particles; a sticky texture, a sticky plastic texture; the various types, the various operations; to vary greatly, to vary with; sandy soil, heavy soil, clay soil, silt soil; loam, loam soil, light soil, heavy soil; this light soil, that heavy soil.

2. Прочтите вслух количественные и порядковые числительные. Обратите внимание на способ образования порядковых числительных и на их произношение.

Количественные

1 one
2 two
3 three
4 four
5 five
6 six
7 seven
8 eight
9 nine
10 ten
11 eleven
12 twelve
13 thirteen
14 fourteen
15 fifteen
16 sixteen
17 seventeen
18 eighteen
19 nineteen
20 twenty
30 thirty
40 forty
50 fifty
60 sixty
70 seventy
80 eighty

Порядковые

the first
the second
the third
the fourth
the fifth
the sixth
the seventh
the eighth
the ninth
the tenth
the eleventh
the twelfth
the thirteenth
the fourteenth
the fifteenth
the sixteenth
the seventeenth
the eighteenth
the nineteenth
the twentieth
the thirtieth
the fortieth
the fiftieth
the sixtieth
the seventieth
the eightieth

90 ninety	the ninetieth
100 a (one) hundred	the hundredth
21 twenty-one	the twenty-first
22 twenty-two	the twenty-second
35 thirty-five	the thirty-fifth

3. Прочтите вслух по-английски следующие цифры (сначала как количественные, а затем как порядковые)

6, 13, 17, 11, 22, 27, 31, 39, 40, 50, 67, 79, 82, 99.

4. Прочтите вслух по-английски дроби.

Образец: 2.5 two point five; 0.7 nought point seven; $1/3$ one third; $5/7$ five sevenths; $1/2$ a half; $1/4$ a quarter.

2.8; 4.7; 81.9; 18.6; 54.3; 0.49; 0.8; 0.25; 2.04; $3/4$; $2/8$; $5/16$; $1/2$; $1/4$.

Лексические упражнения

1. Подберите правильный перевод к английским словам:

1. granular	I. торфяник
2. particle	II. суглинок
3. rock	III. горная порода
4. peat	IV. внешний вид
5. appearance	V. зернистый
6. loam	VI. слой
7. layer	VII. частица

2. Подберите правильный перевод к русским словам:

I. липкий	1. weathering
II. поверхность	2. silt
III. ил	3. loose
IV. глина	4. gravel
V. рыхлый	5. sticky
VI. гравий	6. clay
VII. выветривание	7. surface

3. Составьте предложения, соединяя подходящие по смыслу части.

1. Soil is the mixture	I. by weathering of rocks and breakdown of minerals in them.
2. Mineral matter is formed	II. a sticky plastic texture.
3. Soil is the loose surface layer	III. over the surface of the earth.
4. Soil material consists of	IV. by rotting of plant and animal material.

- | | |
|---|---|
| 5. The various types of soil may be found | V. of mineral and organic material. |
| 6. Organic matter is formed | VI. in which plants can grow. |
| 7. Clay gives other soils | VII. stones, gravel, sand, silt, and organic matter |

8. Заполните пропуски подходящими по смыслу словами:

1. ... has a common origin. 2. Soil is the loose ... of the earth in which plant can grow. 3. Clay is composed of very fine... . 4. ... is composed of sand, silt, clay and organic matter. 5. ... soil contains little or no silt or clay.

Surface layer, loam, sandy, mineral matter, particles.

9. Переведите следующие интернациональные слова:

mixture, mineral, organic, inorganic, material, form, temperature, organism, type, base, proportion, gravel, compose, composition, decomposition, plastic, texture, granular, dominate, predominate, per cent, substance.

10. Подберите к следующим словам

а) синонимы:

1. earth – clay, layer, peat, land;
2. rot – decay, surface, weathering, plow;
3. matter – granular, appearance, particle, substance;

б) антонимы:

1. compose – compact, decompose, decide, loose;
2. loose – mellow, rich, fertile, compact;
3. small – little, large, slow, high;
4. light – moist, loose, rough, heavy.

11. Переведите следующие слова:

а) с префиксом **sub-** в значении «под-» (нахождение внизу под чем-л., указывающим на подчинение):

subsoil, subdivide, subgroup, subnormal, substandard, subtype, subclass, subsurface, substratum;

б) с префиксом **over-** в значении «пере-» (чересчур», «слишком»):

to overgrow, to overlive, to overpay, to overfulfil, overactive, overmature, overpopulation, overpressure, overvalue;

в) с префиксом **trans-** в значении «пере-, пре-, транс-»:

transplantation, transformation, transformer, translocate, transportation, transport, transposition, transvalue;

г) с префиксом **inter-** в значении «между, меж-, среди, пере-»:

interdependent, intersection, interposition, international;

д) с префиксом **co-** в значении «со-» (совместное действие):

cooperation, coworker, coexist.

Грамматические упражнения

12. Переведите следующие предложения, обращая внимание на перевод модальных глаголов и их эквивалентов:

модальные глаголы

эквиваленты

- | | |
|--|-------------------------------|
| 1. can – мочь, быть в состоянии, уметь | be able (to) – быть способным |
| 2. must – должен | have (to), be (to) – быть |
| 3. should – следует, надлежит | должным |
| 4. may – мочь, иметь разрешение | be allowed (to) – разрешается |

1. Sand, silt, clay may be called mineral matter. 2. Plants are able to grow in the loose surface layer of the earth. 3. Clay may be mixed with other soils and it gives them a sticky and plastic texture. 4. Plant and animal material must be rotted to form organic matter. 5. Sandy soil may contain little or no silt or clay. 6. Many vegetables can grow in the North regions of our country. 7. The roots of plants have to absorb nutrients from the soil. 8. They are allowed to begin harvesting cabbage. 9. This farm is able to get high yield of vegetables. 10. Grasses can grow on various types of soil. 11. This farm had to obtain high yield of crops from loam soil. 12. These types of soil should be studied well.

13. Переведите предложения, обращая внимание на инфинитив в функции обстоятельства, цели. Помните, что при переводе инфинитива в функции обстоятельства цели на русский язык вводятся союзы «чтобы», «для того чтобы».

Образец: **To grow well** plants must have favourable soil conditions.

Чтобы расти хорошо, растения должны иметь благоприятные почвенные условия.

1. A student of agriculture studies botany to know how a plant grows. 2. This soil is too poor to give high yields. 3. To absorb plant nutrients from the soil the plant must have roots. 4. To grow this plant we must have good soil. 5. It is necessary to have good soil to get high yields. 6. Light is necessary to manufacture food essential for the growth of green plants. 7. To yield well cool-weather crops need relatively cool conditions. 8. To produce high yields all crops need proper amounts of trace elements.

14. Прочтите и переведите текст А.

SOIL AND SOIL TYPES

Soil is the loose surface layer of the earth in which plants can grow. Soil is the mixture of mineral and organic material. The mineral matter is formed

by weathering of rocks. Organic matter is formed by rotting of plant and animal material with the help of water, wind, air, temperature changes, and soil organisms.

Soil types may be based upon the relative proportion of soil materials. Soil materials consist of stones, gravel, sand, silt, clay and organic matter.

Clay is composed of very fine particles. When it is mixed with other soils, it gives them a sticky plastic texture. Silt consists of particles smaller than sand, but granular in appearance.

The various types of soil may be found over the surface of the earth.

Clay soil is the soil in which plastic clay predominates. Sandy soil is the soil which contains little silt or clay.

Loam is composed of sand, silt, clay and organic matter. Peat soil is the soil which may contain twenty-five to seventy- five per cent of organic matter with loam.

15. Ответьте на вопросы.

1. What is soil?
2. How is the mineral matter formed?
3. How is the organic matter formed?
4. What does soil material consist of?
5. What is clay composed of?
6. What texture does clay give other soils?
7. What does silt consist of?
8. What types of soil do you know?

Словарный список В

advantage	n	преимущество, польза, v давать преимущество
apply	v	применять, употреблять
common	a	распространенный, обыкновенный
considerable	a	значительный, большой
crack	n	трещина, щель
damage	n	вред, ущерб, v повреждать
drought	n	засуха
easy	a	легкий
fen	n	низинный торфяник, болото, топь
heavy	a	тяжелый; обильный; сильный
hot	a	горячий, жаркий
pore	n	пора
porosity	n	пористость
porous	a	пористый

prevent from	v	предотвращать, препятствовать
retain	v	удерживать, сохранять
waterlog	v	заболачивать
waterlogged	a	заболоченный
wet	a	мокрый, влажный

Синонимы:

apply (применять) = use; common (обыкновенный) = usual, ordinary;
retain (удерживать) = keep; wet (влажный) = moist.

Антонимы:

damage (вред) – advantage (польза); easy (легкий) – difficult (трудный); prevent (препятствовать) – stimulate (способствовать); wet (влажный) – dry (сухой).

Лексические упражнения

16. Подберите перевод к английским словам:

значительный	waterlog
препятствовать	retain
повреждать	damage
удерживать	pore
заболачивать	wet
пора	prevent
мокрый	considerable

17. Подберите правильный перевод к русским словам:

I. обыкновенный	1. heavy
II. горячий	2. drought
III. засуха	3. apply
IV. тяжелый	4. advantage
V. трещина	5. common
VI. преимущество	6. hot
VII. применять	7. crack

18. Переведите следующие интернациональные слова:

mineral, nature, naturalist, production, characterize, characteristic, character, porous, pore, accumulation, cultivate, cultivation, cultivator, season, texture, organic, inorganic, accumulate, condition, ordinary.

19. Подберите к следующим словам

а) синонимы:

1. wet – easy, heavy, moist, dry;
2. considerable – large, small, heavy, damage;

3. common – usual, practical, essential, economical;
4. retain – apply, supply, fertile, keep;
5. apply – retain, damage, use, till;

б) антонимы:

1. fertile – available, poor, rich, sandy;
2. wet – high, slow, dry, porous;
3. heavy – light, sticky, windy, highly;
4. advantage – tillage, surface, damage, harvest;
5. prevent – retain, plant, nutritive, stimulate.

20. Добавьте приставки к следующим словам. Переведите полученные слова на русский язык.

Sub- – division, type, normal, stratum, tropical.

Inter- – view, connection, section, relation, dependent, national.

Trans- – plant, formation, mutation.

Over- – grow, water, mature, growth.

Co- – worker, author, operation, exist.

21. Переведите «about», «over», «under» перед числительными:
*at a temperature **above** 30° C:*

at a depth of **about** 10 inches; an area of **over** 5000 miles; a weight of **under** 20 lb.

22. Переведите, выбирая правильное значение «in», «on», «at», «by»:

in winter	on Sunday
in diameter	on the 2-nd of May
in two days	a book on agronomy
by air	at 5 o'clock
by 5 o'clock	at high temperature
by my watch	at the same time
at the station at home	

23. Переведите следующие пары слов, относящиеся к разным частям речи:

a place – to place	a need – to need
a change – to change	a branch – to branch
a condition – to condition	a crop – to crop
a feed – to feed	a farm – to farm
spread – to spread	a plant – to plant
a supply – to supply	a yield – to yield.

Грамматические упражнения

24. Найдите модальные глаголы и их эквиваленты в следующих предложениях. Переведите предложения.

1. Air and water cannot move freely in clay soils. Clay soils should not be cultivated when they are wet. 3. Fertile soils have to supply plants with all nutrients. 4. Organic matter must be applied to sandy soils. 5. Large cracks in dry soils may damage plant roots. 6. Heavy soils are to be cultivated and managed properly. 7. Loams may be used for growing almost all crops. 8. Sandy soils are unable to retain moisture. 9. They are allowed to apply fertilizer to this soil.

25. Переведите следующие предложения, обращая внимание на функцию глагола *to be*.

1. He will be an agronomist of a large state farm. 2. Water and air are held in the pores of the soil. 3. Plant roots are continually taking oxygen from the air of the soil. 4. These crops were planted in spring. 5. There is no growth below freezing point. 6. Any agriculturist is to keep in mind that his most important task is the proper management of the soil. 8. The vegetables will be planted in a week. 9. The soil is a porous mass. 10. The function of roots is to supply the plant with nutrients. 11. There are different types of soils in our country. 12. They were to grow some grain crops.

26. Переведите предложения, обращая внимание на инфинитив в функции обстоятельства цели.

1. Organic matter should be applied to sandy soils to keep up their fertility. 2. Clay soils need proper cultivation and management to produce good yields of crops. 3. Favourable bacterial activities can take place in the soil to make it more productive. 4. To mature wheat, barley, and oats need a shorter frost-free period than that of corn or sorghum. 5. Poor soils require intensive cultivation to be fertile. 6. To be productive the soil must contain the mixture of mineral and organic matter.

27. Переведите следующие предложения, обращая внимание на инфинитив в функции подлежащего. Помните, что инфинитив-подлежащее переводится на русский язык или инфинитивом или существительным в именительном падеже.

Образец: **To apply fertilizers** is very important.

Вносить удобрения очень важно.

Внесение удобрений очень важно.

1. To prepare a good seedbed is the basic reason for tillage. 2. To add organic matter to the soil means to improve the soil productivity. 3. To increase the water-holding capacity of the soil was absolutely necessary. 4. To plow, harrow, roll and cultivate are the main tillage operations.

28. Переведите следующие сочетания слов. Помните, что инфинитив в начале предложения переводится в зависимости от выполняемой им функции: он может быть а) подлежащим, если за инфинитивным оборотом следует личная форма глагола и б) обстоятельством, если за инфинитивным оборотом следуют слова, выполняющие функцию подлежащего.

1. To increase the yield of crops the farmer must... . To increase the yield of crops is... . 2. To grow well plants must have.... To grow well is... . 3. To produce good yields clay soils should be... . To produce good yields requires... . 4. To keep up the soil fertility we should... . To keep up the soil fertility is to get... .

29. Прочтите и переведите текст В.

SOILS OF GREAT BRITAIN

The most common soils in the British Islands are clay soils, sandy soils, loams and peat soils.

Clay soils. They are characterized by the presence of considerable quantities of clay and silt. Air and water cannot **move** freely in them. Therefore, they become waterlogged, and in time of drought are unable to supply the plant with water. Clay soils should not be cultivated when they are wet. During hot dry seasons clay soils dry and form large cracks which may do much damage to plant roots. These soils are heavy and need proper cultivation and management.

Sandy soils. These soils have an open texture. They are very porous and do not retain moisture. They are light. Sandy soils are poor in plant nutrients. Organic matter has to be applied constantly to keep up their fertility.

Loams. Loam soils have advantages of both clay and sandy soils. Loams are easy in cultivation, well supplied with air, and prevent from becoming waterlogged. These soils are very good for farming.

Peat(fen) soils. These soils can be found in places where an accumulation of organic matter under waterlogged conditions took place. They are fertile and should be used for many crops.

30. Ответьте на вопросы.

1. What are the most common soils in the British Islands?
2. How are clay soils characterized?
3. Can air and water move freely in clay soils?
4. What do clay soils need?
5. What texture do sandy soils have?

6. Do sandy soils retain moisture?
7. What has to be applied to keep up the fertility of sandy soils?
8. Why are loams very good for farming?
9. Where can peat soils be found?
10. Are peat soils fertile?

КОНТРОЛЬНЫЕ ЗАДАНИЯ

I. Переведите без словаря текст С.

SOIL CONDITIONS

The soil conditions directly influencing the life of a plant are: air supply, water supply, temperature, supplies of nutrients and others.

Air supply. The soil is a porous mass. Air is able to enter the soil through pores. Soils may vary considerably in their porosity. The amount of space between the soil particles varies with the type of soil. The pore space may be occupied by either air or water. Plant roots are continually taking oxygen from the air of the soil.

Water supply. Water is retained in the pores of the surface layers. The quantities of water vary with the different types of soil. Too much water in the soil is undesirable for it may cause rotting.

The temperature of the soil. The sun is the main source of soil heat. Soil temperature influences the germination of seeds and the growth of plants. At very low temperatures there is no growth.

Plant nutrients. Soil contains four main compounds of plant food: nitrogen, phosphoric acid, potash and lime. Fertile soils contain most of nutrients required by plants, infertile soils are poor in them.

Any agriculturist must know that he will be able to improve the soil conditions with the help of the proper management of the soil.

II. Найдите в тексте ответы на следующие вопросы:

1. Какие условия почвы непосредственно влияют на жизнь растений?
2. Как воздух проникает в почву?
3. Что получает растение из воздуха почвы?
4. Где удерживается вода в почве?
5. К чему может привести избыточное содержание воды в почве?
6. Что является основным источником тепла для почвы?
7. На что влияет температура почвы?
8. Какие основные питательные вещества содержит почва?

III. Переведите на русский язык:

plant nutrients, surface layer, sticky plastic texture, loam, clay loam, silt loam, sandy loam, peat, heavy soils, light soils, proper management, humus soils, various types of soil.

IV. Переведите на английский язык:

минеральное вещество, органическое вещество, смесь, песок, ил, глина, обеспечивать (снабжать), удерживать влагу, засуха, повреждать, плодородие, вносить (применять), пористый.

V. Назовите синонимы следующих слов:

rot, earth, retain, apply, common, make up, substance.

VI. Назовите антонимы следующих слов:

wet, light, loose, damage, easy, prevent.

VII. Переведите следующие слова, обращая внимание на префиксы:

subsurface, subnormal, subgroup, transform, translocate, cooperate, interaction.

VIII. Ответьте на следующие вопросы:

1. По каким признакам можно определить глаголы **to be**, **to have** с модальным значением в следующих предложениях?

- The roots have to supply the plant with nutrients.
- This farm is to increase the yield of vegetables.
- Farmers will have to cultivate these clay soils when they are not wet.
- They had to grow some grain crops.

2. Назовите эквиваленты глаголов «**can**» и «**must**».

3. По каким признакам можно различить инфинитив в функции подлежащего от инфинитива в функции обстоятельства в следующих предложениях

To grow and develop well plants must have favourable climate and soil conditions.

To study the structure of the plant is the first task of any agriculturist.

LESSON 5

Тексты: A. Tillage Practices

B. Main Tillage Operations

C. Preparation of the Seedbed

Грамматика: 1. Группа времен **Perfect** в действительном и страдательном залоге

2. Функции глагола **to have**

Словообразование: Образование слов при помощи чередования гласных

Словарный список А

compact	a	плотный, v уплотнять
compaction	n	уплотнение
competition	n	конкуренция, соревнование
destroy	v	уничтожать, истреблять
erosion	n	эрозия
harrow	n	борона, v бороновать
plow (plough)	n	плуг, v пахать
pulverize	v	рыхлить, разрыхлять (почву)
roll	n	вал, каток, v укатывать
rotation	n	ротация, чередование
seedbed	n	почва, подготовленная для посева, пашня
sod	n	дерн, дернина
suitable	a	подходящий, соответствующий, годный
till	v	возделывать землю, пахать
tillage	n	обработка земли, возделанная земля, пашня
turn under	v	запахивать
weed	n	сорняк, v полоть

Синонимы:

destroy (уничтожать, разрушать) = kill, ruin; pulverize (рыхлить) = loosen; till (возделывать, культивировать) = cultivate; tillage (возделывание, культивирование) = cultivation.

Антонимы:

destroy (разрушать) – build (строить), create (создавать); compact (плотный) – loose (рыхлый); compact (уплотнять) – loosen (рыхлить).

УПРАЖНЕНИЯ

Упражнения для чтения

1. Прочтите вслух слова и словосочетания из текста урока, представляющие трудность для чтения.

а) Plow, plows, plowed, plowing, plough, ploughs, ploughed; seedbed, seedbeds; rotate, rotation; suitable, unsuitable; till, tills, tilled, tilling, tillage; competition; compact; erosion; destroy, destroys, destroyed, destroying, destruction; harrow, harrowed, harrows, harrowing; pulverize, pulverizes, pulverized, pulverizing; roll, rolls, rolled, rolling; weed, weeds, weeded, weeding; sod, sods;

b) suitable conditions, unsuitable conditions, suitable seedbed, tillage practices, tillage operations, destruction of weeds, preparation of the seedbed, crop rotation, under crop rotation, due to crop rotation, to eliminate competition from weeds, competition for plant nutrients, to plow in, to plow under, plowed in, plowing under, to prevent from erosion, water and wind erosion, due to erosion.

2. Прочтите вслух слова одного словообразовательного ряда. Обратите внимание на то, что у существительных и глаголов, образованных от прилагательных, происходит изменение гласных звуков при прибавлении суффиксов.

Прилагательное Существительное Глагол Существительное

deep	depth	deepen	deepening
глубокий	глубина	углублять	углубление
wide	width	widen	widening
широкий	ширина	расширять	расширение
long	length	lengthen	lengthening
длинный	длина	удлинять	удлинение
high	height	heighten	heightening
высокий	высота	повышать	повышение
strong	strength	strengthen	strengthening
сильный	сила	усиливать	усиление

Deep enough, the depth varies, they deepen, the depth of plowing, a long field, the length of seedbed, the lengthening of the experiment, a high yield, the height of growth, the height of stem, the height of them, the wide leaves, the width of leaves, the widening of it.

Лексические упражнения

1. Подберите правильный перевод английским словам:

- | | |
|----------------|----------------------|
| 1. weed | I. вал, каток |
| 2. rotation | II. конкуренция |
| 3. seedbed | III. пахать |
| 4. destroy | IV. чередование |
| 5. competition | V. подходящий |
| 6. roll | VI. сорняк |
| 7. till | VII. бороновать |
| 8. plow | VIII. пашня, грядка |
| 9. harrow | IX. уничтожать |
| 10. suitable | X. возделывать землю |

2. Подберите правильный перевод к русским словам:

- | | |
|----------------------|--------------|
| I. дерн | 1. pulverize |
| II. эрозия | 2. harrow |
| III. плотный | 3. tillage |
| IV. полоть | 4. sod |
| V. разрыхлять | 5. compact |
| VI. борона | 6. erosion |
| VII. обработка земли | 7. plow |
| VIII. укатывать | 8. weed |
| IX. плуг | 9. roll |

3. Составьте предложения, соединя подходящие по смыслу части.

- | | |
|--|---|
| 1. The most common tillage operations are | a) to secure high crop yields. |
| 2. The destruction of weeds through tillage removes | b) plowing, harrowing, rolling and cultivating. |
| 3. Tillage has generally prevented | c) since he started the cultivation of plants. |
| 4. The chief reason for preparing the seedbed well has always been | d) water and wind erosion of soil. |
| 5. Man has tilled the soil | e) their competition for plant nutrients, water and sunlight. |

4. Переведите следующие интернациональные слова:

operation, physical, physically, chemical, chemically, biological, biologically, start, compact, general, generally, condition, erosion, rotation, pulverize, pulverization.

5. Подберите к следующим словам

а) синонимы:

1. Destroy – construct, build, kill, create;
2. loosen – supply, consist, ruin, pulverize;
3. cultivation – construction, germination, tillage, change;
4. land – field, earth, surface, seedbed;

б) антонимы:

1. loose – wet, dry, important, compact;
2. create – destroy, weed, till, compact;
3. humid – nutrient, deficient, arid, clay;
4. high – tall, small, low, big.

Грамматические упражнения

6. Переведите следующие предложения. Помните, что перевод глагола *to have* определяется его сочетанием с другим глаголом.

1. He has to do much work. He has done much work. He has much work.

2. They had harrowed the field. They had to harrow the field. They had a new harrow.

3. The farm has fertile soils. The farm has to fertilize its soils.

The farm has begun to fertilize its soils.

7. Переведите следующие предложения, содержащие глагол-сказуемое, выраженное в одном из времен перфектной группы:

1. We have cultivated the field. We shall have cultivated the field by the time it rains. We had cultivated the field when it rained.

2. They have sown wheat. They had sown wheat before we sowed corn. They will have sown wheat before we sow wheat.

8. Переведите следующие сочетания слов, включающие глагол-сказуемое в перфектной форме активного и пассивного залога. Помните, что, если глагол-сказуемое стоит в пассивном залоге, то подлежащее не является действующим лицом.

1. The new variety has developed... The new variety has been developed... .

2. The organic matter has supplied... The organic matter has been supplied

3. The method has shown... . The method has been shown... .

4. The crop has required.... The crop has been required... .

5. The unfavourable conditions have caused... . The unfavourable conditions have been caused... .

6. Weeds have removed.... Weeds have been removed... .

9. Прочтите и переведите текст А.

TILLAGE PRACTICES

Man has tilled the soil since he started the cultivation of plants.

Tillage may be defined as the practice of working the soil to bring about favourable conditions for plant growth. The most common tillage operations are plowing, harrowing, rolling and cultivating.

The purposes of tillage have always been: 1) to prepare a suitable seedbed, 2) to eliminate competition from weeds, and 3) to improve the physical condition of the soil, the aim of all these operations has always been the preparation of the soil which will be favourable physically, chemically and biologically.

In the preparation of the seedbed it may be necessary to destroy native vegetation, sod or another crop in the rotation, or weeds and to turn them under. The tillage operation may be solely to loosen, compact or pulverize the soil. The destruction of weeds through tillage removes their competition for plant nutrients, water and sunlight.

Tillage has generally prevented the soil from water and wind erosion.

The chief reason for preparing the seedbed well has always been to secure high crop yields.

10. Ответьте на вопросы.

1. How long has man tilled the soil?
2. What are the most common tillage operations?
3. What are the purposes of tillage?
4. What is the chief reason for preparing the seedbed well?
5. What does the destruction of weeds remove?
6. What has tillage generally prevented?

Словарный список В

Deep	a	глубокий
depend upon (on)	v	зависеть (от)
fall	n	осень
fine	a	мелкий
prefer	v	предпочитать
previous	a	предыдущий, предшествующий
remove	v	устранять, удалять, убирать
rough	a	1. грубый (корм) 2. необработанный 3. комковатый (о почве),
roughen (о почве)	v	делать грубым
Runoff	n	сбегание, стекание
sow (sowed; sown)	v	сеять, засеивать
subject	a	подверженный
too	adv	слишком, очень; тоже
fall plowed land		зябь, участок под зябью

Синонимы:

fall (осень) = autumn sow (сеять) = seed, plant; too (очень, слишком) = very

Антонимы:

always (всегда) – never (никогда); deep (глубокий) – shallow (мелкий); fine (мелкий) – rough (комковатый); seldom (редко) – often (часто).

Лексические упражнения

11. Подберите правильный перевод к следующим английским словам:

- | | |
|-----------------------|---------|
| 1. подверженный | too |
| 2. мелкий | subject |
| 3. слишком, очень | fine |
| 4. делать грубым | runoff |
| 5. сбегание, стекание | sow |
| 6. сеять | roughen |

12. Подберите правильный перевод к следующим русским словам:

- | | |
|----------------------------|---------------------|
| I. задержка | 1. prefer |
| II. семя | 2. rough |
| III. грубый | 3. check |
| IV. комковатый | 4. previous |
| V. зябь, участок под зябью | 5. depend |
| VI. предпочитать | 6. seed |
| VII. контроль | 7. fall plowed land |

13. Вставьте подходящие по смыслу слова:

1. The soil must not be ... dry or ... wet before sowing. 2. It is necessary only to harrow ... in spring. 3. Farmers leave fall plowed land ... during winter season. 4. The soil should be ... and . . . before planting this crop. 5. The ... must be planted deep enough to get sufficient moisture for its germination

Fine, fall plowed land, seed, too, rough, loose.

14. Переведите следующие интернациональные слова:

reason, material, practice, agriculture, agricultural, experiment, experimental, station, organic, cultivate, cultivation, contact, final, subject, farm, farmer, local.

15. Подберите к следующим словам

а) синонимы:

1. sow – grow, plow, weed, plant;
2. fall – autumn, runoff, check, remove;
3. too – also, always, very, due;

б) антонимы:

1. always – seldom, never, ever, often;
2. deep – shallow, fine, rough, high
3. rough – low, too, fine, fertile
4. seldom – usual, quick, very, often.

16. Переведите слова второй и третьей колонки:

wide	widen	width	dark	darken	darkness
deep	deepen	depth	weak	weaken	weakness
high	heighten	height	short	shorten	shortness
strong	strengthen	strength	hard	harden	hardness
long	lengthen	length	loose	loosen	looseness

17. Найдите в следующем списке слов глаголы, выделите суффикс или префикс, при помощи которого образован глагол. Переведите.

Enlarge, larger, recognize, useful, active, rewrite, strengthen, reform, mineralize, plowing, moisten.

18. Определите, к какой части речи принадлежат следующие слова и переведите их.

Deeply, economist, organic, helper, growth, highly, productive, useless, economic, mechanization, various, strengthen, darken, nutrition, management, available, depth, harmful.

19. Переведите на английский язык:

Гниль – гнить, вред – повреждать, форма – формировать, растение – высаживать, база – базироваться, вода – поливать, запас – запастись, место – размещать, плуг – пахать, борона – бороновать.

Грамматические упражнения

20. Определите словарную форму следующих причастий II:

grown, known, harrowed, loosened, been, done, made, begun, practiced, studied, written, spoken, broken, sown, seen.

21. Переведите следующие предложения с глаголом-сказуемым, выраженным одним из времен перфектной группы.

1. Plowing has always been the first step in the preparation of the seedbed. 2. The seedbed for winter wheat had been plowed before rainfall was 'heavy. 3. Harrowing has made the soil fine and loose enough. 4. Plowing was done after the previous crop had been removed. 5. The agricultural experiment stations have made many studies on the time of plowing. 6. They will have sown this crop by the end of the month. 7. The vegetables will have been harvested by the first frosts.

22. Переведите следующие предложения. Помните, что перевод глагола to have определяется его сочетанием со стоящим после

него: 1) существительным; 2) инфинитивом другого глагола и 3) причастием II.

1. They have to grow some grain crops. 2. They have fertile soils on this farm. 3. Many trees have been planted in the streets of our town this year. 4. This work had to be done by hand. 5. This collective farm has already done all tillage operations in its fields. 6. They had harrowed their fields thoroughly before they sowed spring wheat. 7. We have never plowed clay soils when they are wet. 8. They will have to do this work tomorrow.

23. Переведите следующие предложения с глаголом-сказуемым, выраженным одним из времен перфектной группы. Обратите внимание на наречия, употребляемые с *Present Perfect Tense*.

never – никогда

always – всегда

ever – когда-либо

seldom – редко

often – часто

just – только что

not yet – еще не

1. The collective farm has **already** done all tillage operations in the field. 2. Clay soils have **never** been plowed when they are wet. 3. The effect of soil erosion had **always** been considered in planning all tillage operations. 4. Granulated mixtures will have **already** been applied to the soil by the end of the week. 5. Fall plowing has **never** been done on land subject to winter erosion. 6. Have you **ever** visited the Exhibition of Economic Achievements? 7. Has he **ever** observed that phenomenon in the field? 8. Fall plowing has **not** been done **yet**. 9. Plowing has **just** been done.

24. Прочтите и переведите текст В.

MAIN TILLAGE OPERATIONS

Plowing. Plowing is usually the first and the most important step in the preparation of the seedbed. The soil should not be too dry or too wet when the plowing is done.

The reasons for plowing in seedbed preparation have always been: 1) removal from the surface of either green or dried material, 2) loosening the soil, 3) removal or delay of competition with weeds and 4) roughening the immediate surface so as to check runoff of rain water.

Time of plowing. Plowing may be done as soon as the previous crop has been removed from the land. Some farmers prefer to plow land in the fall, others in the spring. The agricultural experimental stations have made many studies on the time of plowing. Most of these have shown little difference in the yields of crops on fall plowed land as compared to spring plowed land.

The best time for plowing has generally depended upon the local conditions. However, fall plowing has not been done on land subject to winter erosion or winter compaction.

Spring plowing has always been practiced on soils that erode easily, especially where rainfall is heavy during the winter months. Soils low in organic matter have been plowed in the spring to make them more easily cultivated.

Harrowing. The final preparation of the seedbed is harrowing. Harrowing makes the soil fine, loose and deep enough to provide good contact between the seed and moist soil.

When the seedbed is prepared, we may begin sowing (seeding) crops.

25. Ответьте на вопросы.

1. What is the first and the most important step in the preparation of the seedbed?
2. What are the reasons for plowing in seedbed preparation?
3. When may plowing be done?
4. What studies have the agricultural experimental stations made?
5. What have most of these studies shown?
6. What has the best time for plowing generally depended upon?
7. On what soils has spring plowing usually been practiced?
8. What is the final preparation of the seedbed?
9. What is the aim of harrowing?
10. When may we begin sowing crops?

КОНТРОЛЬНЫЕ ЗАДАНИЯ

Переведите без словаря текст С.

PREPARATION OF SEEDBED

The preparation of a good seedbed is one of the most important factors in getting high yields. Good crops have never been produced on poorly prepared ground. If the soil has been tilled well we may expect good results.

Plowing has usually been the first step in the preparation of a good seedbed. This operation loosens the soil, turns under the vegetable material, and mixes it with the soil. Plowing also destroys weeds which rob the soil of nutrients that should be used by growing crops.

Time of plowing has generally depended on the climatic and soil conditions. Sometimes plowing is done in the fall, sometimes in the spring. If plowing had been done in the fall, it hastens spring-planting operations. The first spring tillage on the fall plowed land hastens the drying of the surface and often permits an early planting.

On heavy soils spring plowing has never been desirable. On such soil types plowing the land in early spring when it is too wet may ruin the physical condition of the soil. Heavy soils have been often successfully plowed in the fall. In this case time is saved, and changes of weather improve soil structure.

Soils of light types have generally been plowed in the spring to save their nutrients for crops.

I. Найдите в тексте С ответы на следующие вопросы:

1. Что является одним из самых важных факторов в получении высоких урожаев?
2. Какая с.-х. операция разрыхляет почву, запахивает растительное вещество и смешивает его с землей?
3. От чего обычно зависит время посадки?
4. Какие с. х. операции ускоряет осенняя вспашка?
5. На каких почвах весенняя вспашка нежелательна и почему?
6. Какие почвы обычно подвергаются весенней вспашке и почему?

II. Переведите на русский язык:

Tillage practices, seedbed, to turn under, destruction of weeds, competition, agricultural experimental station, native vegetation, suitable seedbed, to prevent soil erosion.

III. Переведите на английский язык:

благоприятные условия, физическое состояние почвы, пахать, боронить, культивировать, ветровая и водная эрозия, сорняки, полоть, подготовка пашни

IV. Назовите синонимы следующих слов:

destroy, loosen, fall, tillage, sow, too.

V. Назовите антонимы следующих слов:

destroy, compact, shallow, rough, often, always.

VI. Переведите следующие сочетания слов, содержащие слова одного словообразовательного ряда:

a) *strong a, strength n, strengthen v:*

strong material, a strong argument, a strong root; the strength of stem, the strength of wind; to strengthen friendship, to strengthen the basis;

b) *deep a, deeply adv, depth n, deepen v:*

a deep river, a plowing depth, the depth of the sea, the depth of subsoil, to plow deeply, to cultivate deeply, to deepen plowing, to deepen cultivation;

c) *wide a, widely adv, width n:*

a wide river, wide knowledge, a wide use, to differ widely, to vary widely, the width of the seedbed, different in width.

VII. Ответьте на следующие вопросы:

1. Как переводится глагол **to have**, если после него стоит а) существительное, б) инфинитив другого глагола и в) причастие II?

has tilled, has to till, has a field, had plowed, had to plow, had a plow, will have a weed, will have weeded, will have weeds.

2. Как переводится сказуемое в **Present** и **Past Perfect Tense**?

The plowing *has begun*...

The plowing *had begun*...

3. Как переводятся наречия **never, ever, already, often, seldom, not yet, just**?

LESSON 6

Тексты: A. Fertilizers

B. Green Manure Crops

C. Organic Matter

Грамматика: **Причастие II**. Признаки причастия II.

Функции причастия II в предложении – определение, обстоятельство

Словообразование: Префиксы **de-, ir-, im-, un-, dis-, non-, pre-, re-**.

Словарный список А

application	n	внесение
confront (with)	v	быть поставленным перед
consume	v	потреблять
consumption	n	потребление
deplete	v	истощать
even	adv	даже
fertilization	n	внесение удобрений
fertilize	v	удобрять, вносить удобрение
fertilizer	n	минеральное удобрение
commercial fertilizer		промышленное удобрение
fertilizing	n	удобрение, внесение удобрений
general	a	общий
in general		обычно
maintain	v	поддерживать
maintenance	n	1. содержание 2. уход
manure	n	навоз
farmyard manure		навоз со скотного двора

green manure		зеленое удобрение, сидерат
manuring	n	внесение органических удобрений
plow under	v	запахивать
promote	v	способствовать, содействовать
recognize	v	признавать
residue	n	остаток
crop residues		пожнивные остатки
return	n	доход, v возвращаться
value	n	ценность
vary	v	различаться

Синонимы:

consume (потреблять) = take in; consumption (потребление) = use; fertilize (удобрять) = manure; general (общий) = common; promote (способствовать) = stimulate; turn under (запахивать) = plow under.

Антонимы:

available (доступный) – unavailable (недоступный); continue (продолжать) – discontinue (прекращать); favourable (благоприятный) – unfavourable (неблагоприятный); mature (зрелый) – immature (незрелый); regular (правильный) – irregular (неправильный).

УПРАЖНЕНИЯ

Упражнения для чтения

1. Прочтите вслух слова и словосочетания из текста урока, представляющие трудность для чтения:

a) apply, applied, application, consider, considerable, consume, consumption, deplete, depletion, fertilize, fertilization, fertilizer, commercial fertilizer, fertilizing, maintain, maintenance, manure, green manure, barnyard manure, recognize, residues, crop residues, turn under, value, valuable, vary, various, beneficial, capacity, a content, to content, leaching, release, widely;

b) it confronts, it confronts the agronomists, the crops are fed to livestock, the crops have been fed to livestock, manure returned to the land, manure has been returned to the land, is gradually depleted, the soil is gradually depleted in nutrients, fertilization, it requires fertilization, when applied, it is applied, it should be applied, with the barnyard manure, with the green manure, plant residues are turned under, for maintenance of soil fertility, farm manure for maintenance of soil fertility, commercial fertilizers are applied, complete fertilizer should be applied, if well supplied, a high water-holding capacity, this soil has a high water-holding capacity, a

cover crop is practiced, a cover crop is widely practiced in cropping, it has beneficial effects.

Лексические упражнения

1. Подберите правильный перевод к английским словам:

- | | |
|--------------------|-----------------------------|
| 1. plow under | I. содержание, уход |
| 2. deplete | II. способствовать |
| 3. maintenance | III. применять, вносить |
| 4. promote | IV. навоз со скотного двора |
| 5. barnyard manure | V. запахивать |
| 6. green manure | VI. внесение удобрений |
| 7. fertilization | VII. сидерат |
| 8. apply | VIII. истощать |

2. Подберите правильный перевод к русским словам:

- | | |
|----------------------------|---------------|
| I. остаток | 1. turn under |
| II. выносить | 2. maintain |
| III. потреблять | 3. in general |
| IV. даже | 4. confront |
| V. быть поставленным перед | 5. even |
| VI. запахивать | 6. residue |
| VII. поддерживать | 7. consume |
| IX. вообще | 8. remove |

3. Подберите правильное определение английским терминам:

- | | |
|------------------|--|
| 1. Nutrient | I. a crop grown to prevent erosion |
| 2. fertilization | II. the supply of nutrients |
| 3. green manure | III. a chemical element consumed by a plant as food |
| 4. cover crop | IV. the application of elements to the soil that promote the nutrition of plants |
| 5. fertility | V. a crop or plant grown and plowed under to improve the soil |

4. Подберите правильный термин данным определениям:

- | | |
|---|-----------------------------|
| I. material applied to the soil to enrich it | 1. soil productivity |
| II. growing crop which plowed under for | 2. fertilization fertilizer |
| III. capacity of a soil to produce crops | 3. humus |
| IV. the application of fertilizer to the soil | 4. fertilizer |
| V. well-decomposed organic matter of the soil | 5. green manure |

5. Переведите следующие интернациональные слова:

commercial, problem, container, progress, animalist, constituent, regulator, regulate, humus, directive, direction, director, directress, effect, result.

6. Подберите к следующим словам

а) синонимы

1. common – take, general, use, highly
2. fertilize – apply, weed, complete, manure
3. turn under – sow, plow under, grow, harrow
4. consume – supply, plant, loosen, use
5. promote – stimulate, cultivate, devote, create

б) антонимы:

1. increase – enrich, decrease, develop, improve
2. mature – ripe, immature, efficient, available
3. sufficient – nutritious, general, moist, deficient
4. moist – arid, slow, fertile, poor
5. increase – decay, apply, cultivate, decrease.

7. Переведите следующие слова:

а) с префиксами отрицания: *un-, ir-, in- (im-), de-, non-*:

unwell, unnecessary, unusual, unknown, unable, unhappy, unfinished, unproductive, unchanged; irregular, irradiate, irreplaceable; incorrect, indirect, inorganic, incapable; immature, immovable, imperfect, impossible; decamp, decentralize, declassified, decompose, deformation, degrade, detrain; non-effective, non-essential, non-productive, non-standard, non-resistant;

б) с префиксом *re-* в значении повторности действия "пере-":
rewrite, rebuild, remake, reread, reconstruct.

в) с префиксом *pre-* в значении «до-, пред-, впереди: prehistoric, pre-war, preheat, premature, preoccure.

8. Напишите глаголы, от которых образованы следующие существительные. Переведите глаголы и существительные.

Improvement, application, requirement, germination, sowing, growth, freezing, fertilizer, drainage, maturity, development, moisture, variety, penetration, tillage, thawing, distribution, reference.

Грамматические упражнения

9. Определите словарную форму следующих причастий II:

applied, given, plowed, required, used, sown, reduced, completed, transmitted, referred, controlled, taken, put, met.

10. Переведите следующие сочетания слов, обращая внимание на перевод причастия II – определения. Помните, что в этой функции причастие II переводится на русский язык страдательным причастием, оканчивающимся на -мый. -ный, -тый:

Образец: 1) The manure **applied** increases

Вносимый навоз увеличивает... .

2) The **plowed under** manure gives

Запахиваемый навоз дает... .

3) The **given** type is

Данный тип является... .

The element removed ... plant residues turned under... , feed consumed ..., applied commercial fertilizers are ..., potash consumed by farm crops ..., the decomposed parent rock ..., the given soil type ..., the written recommendations are ... our land depleted of organic matter is

11. Переведите следующие сочетания слов, обращая внимание на перевод причастия II – обстоятельства.

Образец: **When (if) grown**, the farm crops remove

а) **При выращивании** с.-х. культуры выносят...

б) **Когда с.-х. культуры выращивают**, они выносят...

When applied to the soil, fertilizers promoteWhen decreased, the nitrogen content of the soil has When manured, potatoes increase the yield ... When prepared properly, the seedbed 'has the most favourable conditions for ... When required, the fertilizer must ... If leached, nitrates are ... If used, farm manure should ... If generally recognized as the best green plants, legumes may be used ... If prepared properly, the seedbed may have ... If needed, the organic matter should be applied

12. Прочтите и переведите текст А.

FERTILIZERS

The progress of agriculture confronts the agronomists with the problems connected with soil productivity. When grown, the farm crops remove plant food from the soil and decrease the soil fertility. Even when the crops have been fed to livestock and manure has been returned to the land, the soil is gradually depleted and requires fertilization. When applied to the soil, fertilizers promote greater plant growth and better crop quality.

Types of fertilizers. In general there are two types of fertilizers: barnyard manure and commercial fertilizers. Besides, there are the green manure crops and plant residues turned under for soil enrichment.

Farm manures. The value of barnyard manure varies greatly with class of animal, and with the type of feed consumed by the animal. The value of farm manure for maintenance of soil productivity has been recognized from ancient times.

Commercial fertilizers. In general applied commercial fertilizers are classed as organic and inorganic. A fertilizer that contains nitrogen, phosphorus and potash is known as a complete fertilizer. Nitrogen, phosphorus and potash mostly consumed by farm crops are the main constituents of plant nutrients. When regularly applied, the complete fertilizers greatly increase the crop yield.

If well supplied with organic matter, a soil has a high water holding capacity and a high crop-producing capacity.

13. Найдите в тексте А перевод следующих русских предложений:

1. При выращивании с. х. культуры забирают из почвы питательные вещества.

2. При внесении в почву удобрения способствуют лучшему росту растений.

3. При регулярном внесении полные удобрения значительно увеличивают урожай культур.

4. Вносимые удобрения в общем подразделяются на органические и неорганические.

Словарный список В

ability	n	способность
appear	v	появляться
beneficial	a	выгодный, полезный
benefit	n	выгода, польза
capacity	n	способность
water-holding capacity		способность удерживать воду
content	n	содержание
cover	v	покрывать
crop:		
cover crop		почвопокровная культура
green manure crop		сидерат, культура как зеленое удобрение
succeeding crop		следующая культура
cropping	n	выращивание (возделывание) с.-х. культур

decomposition	n	разложение
indirectly	adv	косвенно
leaching	n	выщелачивание
loss	n	ущерб, потеря
means	n	средство
release	v	освобождать
similar	a	подобный, сходный
widely	adv	широко

Синонимы:

ability (способность) = capacity

beneficial (выгодный) = profitable

cropping (выращивание с. х. культур) = cultivation

decomposition (разложение) = decay

like (похожий) = similar

release (освобождать) = set free

Антонимы:

deplete (истощать) – enrich (обогащать); loss (потеря) – return (доход); similar (сходный) – unlike (непохожий)

Лексические упражнения

14. Подберите правильное английское определение к русским терминам:

- | | |
|-------------------------|--|
| 1. выщелачивание | I. unused parts of the crop that are not harvested |
| 2. сидерат | II. the capacity of the soil to produce crops |
| 3. пожнивные остатки | III. is a crop grown to protect the soil from leaching and erosion |
| 4. продуктивность почвы | IV. removal of nutrients by gravitational water from the soil (leaching) |
| 5. покровная культура | V. a crop turned under to improve the soil |

15. Подберите правильный перевод английским словам:

- | | |
|---------------|------------------|
| 1. beneficial | I. средство |
| 2. capacity | II. способность |
| 3. release | III. освобождать |
| 4. widely | IV. потеря |
| 5. loss | V. содержание |
| 6. content | VI. выгодный |
| 7. means | VII. широко |

16. Подберите правильный перевод к русским словам:

- | | |
|-------------------------------|-------------|
| I. покрывать | 1. release |
| II. разложение | 2. cropping |
| III. похожий | 3. ability |
| IV. выращивание с.-х. культур | 4. cover |
| V. способность | 5. set free |
| VI. доход | 6. return |
| VII. освобождать | 7. like |

17. Переведите следующие интернациональные слова:

organic, effect, structure, material, problem, occupy, occupation, composition, permanent, protection, represent, farm, practice, adequate, effect, critical, protest, method, adequate.

18. Подберите синонимы к словам:

- | | |
|------------------|---------------|
| 1. promote | I. profitable |
| 2. decomposition | II. capacity |
| 3. similar | III. decay |
| 4. ability | IV. take in |
| 5. beneficial | V. stimulate |
| 6. general | VI. like |
| 7. consume | VII. common |

19. Подберите антонимы к словам:

- | | |
|----------------|-----------------|
| I. loss | 1. inability |
| II. unlike | 2. immature |
| III. ability | 3. similar |
| IV. available | 4. inadequate |
| V. mature | 5. return |
| VII. deplete | 6. unavailable |
| VIII. adequate | 7. disadvantage |
| IX. benefit | 8. enrich |

20. Образуйте антонимы из следующих слов, используя префиксы отрицания *im-, ir-, de-, dis-, in-*:

successful, ability, important, necessarily, desirable, real, depend, regular, possible, legal, advantage, available, like, continue, mature, cultivated.

21. Образуйте производные от следующих слов:

- | | |
|-----------------|---|
| 1. to consider | рассматривать, рассмотрение, значительный |
| 2. to add | добавлять, добавление, дополнительный |
| 3. to fertilize | удобрять, удобрение, плодородие
плодородный, |
| 4. to grow | выращивать, выращивание, рост |
| 5. to vary | изменяться, различный, разновидность |

Грамматические упражнения

22. Переведите следующие причастия II - определения:

applied, connected, grown, increased, produced, changed, plowed under, asked, written, taken, given, got, done.

23. Определите функцию причастия II и переведите предложения.

a) 1. The value of barnyard manure varies with the type of feed consumed by the animal. 2. Applied commercial fertilizers greatly increase the productivity of the soil. 3. A green manure crop grown on a farm is turned under for soil improvement. 4. The grown cover crops give several beneficial effects.

b) 1. When turned under, green manure crops give several beneficial effects. 2. If grown properly, cover crops are a good means of maintaining the soil productivity. 3. When broken, seeds cannot germinate. 4. When sown unselected, seeds are not able to produce high yields. 5. As shown in Fig. 2, the fertility of the soil decreased.

24. Запомните признаки, помогающие определить функцию слов с окончанием *-ed*. Затем прочтите следующие предложения, обращая внимание на эти слова, и укажите номера предложений, в которых они являются: а) сказуемым в прошедшем времени в действительном залоге; б) частью сказуемого в пассивном залоге; в) «левым» или «правым» определением существительного; г) обстоятельством.

1. The agronomist applied this new method. 2. That method is used for improving the fertility of the soil. 3. The method applied by the agronomist gave good results. 4. These farmers will study the improved system of maintaining the soil fertility. 5. Professor Petrov completed this series of experiments last year. 6. This series of experiments completed by professor Petrov was very difficult. 7. This series of experiments was completed, we could begin another one. 8. When seeded early in the spring, spring barley gives maximum yield.

25. Прочтите и переведите текст В.

GREEN MANURE CROPS

A green manure crop grown on a farm is turned under for soil improvement. A cover crop is one used to cover and protect the soil surface, especially during winter. Cover crops are commonly plowed under for green manure. Widely practiced green manuring is one of farmer's ancient methods of improving soil. The use of green manures practiced in the

agricultural areas where continuous cropping has depleted the soil, and where animal manure is inadequate, maintains the content of soil organic matter. When turned under, green manure crops give several beneficial effects. The usually given advantages are: a) to prevent the soil from erosion, b) to prevent loss of nutrients by leaching from the soil, c) to improve the structure and water-holding capacity of soils, d) to increase the nitrogen supply if the manure crop is a legume, e) to supply organic matter, which upon decomposition releases plant food and indirectly increases the availability of nutrients, f) to improve the humus content of soil, and g) to increase the yield and quality of the succeeding crop.

In certain areas the maintenance of the organic matter content and permanent soil fertility has become a critical problem. If grown during seasons when the land is unoccupied with main crops, green manure crops are a good means of maintaining the soil productivity, particularly, when adequate amounts of farm manures or similar materials are not available.

26. Ответьте на следующие вопросы:

1. What is a cover crop?
2. What is one of farmer's ancient methods of improving soil?
3. What can maintain the content of organic matter?
4. What beneficial effects do green manure crops give?
5. Where are green manure crops a good means of maintaining the soil productivity?

КОНТРОЛЬНЫЕ ЗАДАНИЯ

I. Переведите без словаря текст С.

ORGANIC MATTER

Soil is composed of organic and inorganic material. Inorganic material is obtained from the decomposed parent rock. Organic constituents of the soil are obtained from living and dead plants and animals, plant roots, green manuring crops, manure, crop residues, and bacteria. Soil humus commonly referred to as organic matter represents the decomposed organic material.

If contained in a considerable amount, organic matter influences on soil in many ways. Organic matter supports bacteria and other organisms, improves the physical condition of soil, increases water-holding capacity, improves aeration, regulates soil temperature and serves as an important source of nitrogen and other plant food elements required by plants for their growth.

Much of our land depleted of organic matter, chiefly because of

cultivation and erosion, are improved with fertilizing the soil. If used properly, fertilizers can maintain the productivity of our soils. The most important sources of organic matter, however, are barnyard manure and green manure.

Long before the modern science appeared the importance of soil organic matter had been recognized by farmers. They found out that when applied to the soil, organic matter increases the soil fertility.

II. Найдите в тексте С ответы на следующие вопросы:

1. Из чего получается органическое вещество в почве?
2. Что улучшает водоудерживающую способность почвы?
3. Что может поддерживать продуктивность почвы?
4. Что является основным источником органического вещества?
5. Что происходит при внесении органических веществ в почву?
6. Назовите 3 действия органического вещества на почву.

III. Переведите на английский язык:

водоудерживающая способность, остатки растений, сидерат, внесение удобрений, выщелачивание, последующая культура, вносимое удобрение, подпокровная культура, высокие потери, пожнивные остатки, запахивать, разложение.

IV. Назовите синонимы следующих слов:

fertilize, common, promote, turn under, consume, release, decay, beneficial, capacity, like, cropping.

V. Образуйте антонимы из следующих слов, используя префиксы отрицания. Переведите.

Like, important, available, mature, cultivated, continue, favourable, real.

VI. Добавьте префиксы к следующим словам. Переведите полученные слова на русский язык.

Non – effective, negative, member, essential; in – adequate, dependent, directly, active; un – real, able, limited, common; im – possible, practicable, mature, mobility, plant; dis – advantage, appear, ability, connect, infect, integrate, place, position; pre – mature, war, historic; re – make, plan, write.

VII. Ответьте на следующие вопросы:

1. Как переводится причастие II – определение на русский язык (asked, cultivated, applied, grown, taken, sown, plowed)?

2. Как переводятся обстоятельственные обороты с причастием II, вводимые союзами *when, if* (when applied, if sown, if grown, when harrowed)?

3. Как отличить в предложении сказуемое в прошедшем времени в

действительном залоге от причастия II, выступающего в качестве «правого» определения? Например:

1) The agronomist cultivated the crop. 2) The crop cultivated by the agronomist required much nitrogen. 3) The crop cultivated removed much nitrogen.

LESSON 7

Тексты: A. Seeds

B. Seeding Practice

C. Seeding Small Grains

Грамматика: Причастие I: Признаки причастия I. Функции причастия I в предложении. Причастие I - определение, причастие I - обстоятельство. Самостоятельный причастный оборот

Словообразование: Префиксы **inter-**, **anti-**, **counter-**.

Словарный список А

ability:	n	
yielding ability		урожайность
adapt	v	приспосабливаться
adaptability	n	приспособляемость
adaptation	n	приспособление
approximate	a	приблизительный
attack	n	поражение, v поражать (о болезни)
care	v	заботиться
choose (chose, chosen)	v	выбирать
contaminate	v	заражать
current	a	текущий
disease	n	болезнь
do well	v	хорошо расти
inferior	a	худший, плохой
insect	n	насекомое
introduction	n	внесение, введение
labour	n	труд, работа
purity	n	отсутствие примесей
prime	a	основной, важнейший
resist	v	противостоять
resistance	n	устойчивость, стойкость
successful	a	успешный
take into consideration	v	принимать во внимание

Синонимы:

contaminate (заражать) = infect; do well (хорошо расти) = grow well;
resist (противостоять) = withstand; vary (изменяться) = change.

Упражнение для чтения

1. Прочтите вслух слова и словосочетания из текста урока, представляющие трудность для чтения.

a) Ability, adapt, adaptability, adaptation, approximate, approximation, care, caring, careful, carefully, choose, choosing, contaminate, contaminated, contaminating, current, disease, diseases, inferior, prime, primer, purity, pure, purification, consider, considering, consideration, weed, weeding, weeds, weeded, distribute, distributed, distribution, uniform, uniformly, ground, deep, depth, moisture, moist, example, should, guaranty, guaranties, favour, favourable, row, rows, implement, implementations, furrow, furrows, broadcast;

b) prime, a prime essential, a prime essential to successful crop production; adaptation, the variety adaptation, the variety adaptation to moisture conditions; approximate, the approximate germination, the approximate germination and purity; introduction, introduction of weeds; the labour, the labour for caring for; reduces, reduces crop yields; take into consideration, take into consideration the seed qualifications; the factors affecting adaptability, yielding ability, purity and disease and insect resistance; inferior, inferior under other conditions; guaranty, is no guaranty; will necessarily yield, will necessarily yield well; ability to resist disease and insect attack; varieties varying, varieties varying in their resistance, varieties varying in their disease resistance; have the ability, have the ability to resist.

Лексические упражнения

1. Подберите правильный перевод английским словам:

- | | |
|---------------|------------------------|
| 1. purity | I. устойчивость |
| 2. do well | II. успешный |
| 3. resistance | III. поражать |
| 4. successful | IV. хорошо расти |
| 5. current | V. отсутствие примесей |
| 6. attack | VI. текущий |

2. Подберите правильный перевод к русским словам:

- | | |
|--------------------------|----------------|
| I. принимать во внимание | 1. approximate |
| II. основной | 2. disease |

- | | |
|----------------------|----------------------------|
| III. приблизительный | 3. take into consideration |
| IV. болезнь | 4. prime |
| V. приспособление | 5. yielding ability |
| VI. урожайность | 6. adaptation |

3. Подберите правильное определение английским терминам:

- | | |
|---------------------|--|
| 1. weed | I. being able to yield well |
| 2. to seed | II. to grow well |
| 3. yielding ability | III. abnormal state of an organism |
| 4. to do well | IV. to sow |
| 5. disease | V. a plant that in this location is more harmful than beneficial |
| 6. to contaminate | VI. to infect |

4. Заполните пропуски подходящими по смыслу словами.

1. Varieties vary in their ... 2. There is a great variation in the ... of different varieties. 3. ... of weeds in the seed reduces crop yields. 4. Choosing the variety, we should take into consideration ..., yielding ability, and disease and insect resistance. 5. A variety must ... to the section in which it is to be grown.

Introduction, purity, adaptability, be adapted, disease resistance, yielding ability.

5. Переведите следующие интернациональные слова:

variation, guaranty, universally, labour, qualification, adaptation, maximum, separation, method, culture, real, reason, section.

6. Подберите синонимы к следующим словам:

- | | |
|----------------|-----------------|
| 1. vary | I. grow well |
| 2. withstand | II. infect |
| 3. do well | III. plow under |
| 4. contaminate | IV. benefit |
| 5. till | V. plant |
| 6. turn under | VI. change |
| 7. advantage | VII. cultivate |
| 8. sow | VIII. resist |

7. Переведите следующие сочетания слов, содержащие слова одного словообразовательного ряда:

a) *consider v, consideration n, considerable a*

to consider the problem, to consider possibilities, to consider the application, to consider the results, the consideration of that factor, the consideration of an increase, the consideration of the problem, to take into consideration, considerable advantage, considerable importance;

b) *prime a, primarily adv*

a prime growth, of prime significance, to depend primarily on stored food, to increase primarily in size;

c) *invaluable a, valuable a, value n*

invaluable help, invaluable supply, valuable results, a valuable nutrient, the method of great value.

Грамматические упражнения

1. Определите словарную форму следующих причастий I:

varying, decreasing, choosing, producing, growing, yielding, applying, studying, beginning, stopping, controlling.

2. Переведите следующие сочетания слов, обращая внимание на перевод причастия I – определения. Помните, что в этой функции причастие I переводится на русский язык причастием в активном залоге, оканчивающимся на *-щий, -вший*.

Образец: The factor **helping** to increase the crop yield is...

Фактор, **помогающий** увеличить урожай культур, является...

1. Varieties **varying** in their disease resistance ... 2. Plant growth **depending** on many factors ... 3. **Growing** plants are... 4. Crops **requiring** much moisture ... 5. Small grains **responding** to... 6. The soil **surrounding** the seed ... 7. The **decreasing** temperature is ...

3. Переведите следующие сочетания слов, обращая внимание на перевод причастия I - обстоятельства. Помните, что в этой функции причастие I переводится на русский язык деепричастием, оканчивающимся на *-ая, -ая*.

Образец: **Choosing** the soil for vegetables, we should... **Выбирая** почву под овощами, мы должны...

1. **Growing small grains**, farmers use ... 2. **Choosing the variety**, we should take into consideration ... 3. **Applying fertilizers**, they increased... 4. They got high yields, **fertilizing the soil** ... 4. ... drills save seed, **producing better yields**.

4. Определите функции выделенных причастий I. Переведите причастия I в зависимости от их функции.

1. The **growing** weeds are ... 2. **Germinating** seeds absorb ... 3. **Choosing** the variety for the section, farmers... 4. Grain drills **placing** the seed at the desired depth distribute ... 5. The common **flowering** plant consists of ... 6. **Containing** adequate amounts of nutrients, soils meet the requirements ... 7. The grower **seeding** small grains with drills saves ... 8. A seed **consisting** of an embryo and supply of plant food is ...

5. Переведите следующие сочетания слов, обращая внимание на перевод причастия I и причастия II в функции определения.

changing temperature	growing crop
changed temperature	grown crop
cultivating implement	seeding attachment
cultivated field	seeded grain
determining quantity	tilling machine
determined quantity	tilled soil
dividing particle	saturating water
divided particle	saturated soil
seeding time	drilling method
seeded wheat	drilled barley
contaminating seeds	adapting crop
contaminated seeds	adapted crop

6. Прочтите и переведите текст А.

SEEDS

Good seed is a prime essential to successful crop production. The variety adaptation and the approximate germination and purity of seed should be known before it is planted. Introduction of weeds in the seed often increases the labour for caring for the crop, reduces crop yields, contaminating the current product as well as the seed and soil in future season.

Choosing the variety to be used, we should take into consideration the factors affecting the seed qualifications: adaptability, yielding ability, purity, and disease and insect resistance.

Adaptability. It is of first importance that the variety should be adapted to the section in which it is to be grown. A variety may be excellent under some conditions but inferior under other conditions. The fact that a variety yields well in one region is no guaranty that it will yield well in another region. The same variety, however, may do well in two widely separated regions.

Yielding ability. It has been shown that before maximum yields can be obtained, a variety must be adapted to the section in which it is to be grown. There is a great variation in the yielding ability of different varieties when grown under the same conditions and given the same methods of culture.

Ability to resist disease and insect attack. Varieties varying greatly in their disease and insect resistance, it is highly desirable that plants have the ability to resist disease and insect attacks.

Purity. The real value of seed depends upon its purity.

7. Основываясь на содержании прочитанного текста, ответьте на следующие вопросы по-английски:

1. Что необходимо знать о сорте, прежде чем его высевать?
2. Что снижает урожай культур?
3. Какие факторы следует принимать во внимание при выборе сорта?
4. Является ли гарантией высоких урожаев данного сорта тот факт, что он дает хороший урожай в другом районе?
5. В чем сильно различаются сорта?
6. От чего зависит ценность семян?

Словарный список В

apart	adv	отдельно
barley	n	ячмень
bearing	n	значение
broadcast	n	разбросной сев, v производить сев вразброс
compare	v	сравнивать
delay	v	задерживать, откладывать
drill	n	1. рядовой посев 2. рядовая сеялка, v сеять в рядки
equip	v	оборудовать
favour	v	оказывать предпочтение
fertilizer attachment		приспособление для внесения удобрений
furrow	n	борозда
furrow method		метод посева по бороздам
interfere	v	мешать, препятствовать
oats	n	овес
permit	v	позволять, разрешать
respond	v	реагировать
rye	n	рожь
saturate	v	насыщать
save	v	экономить
shallow	a	мелкий
small grains		зерновые культуры
surround	v	окружать

Лексические упражнения

8. Подберите правильный перевод к английским словам:

- | | |
|--------------|--------------------------|
| 1. favour | I. междурядная обработка |
| 2. interfere | II. реагировать |

- | | |
|-----------------|----------------------------|
| 3. intertillage | III. борозда |
| 4. respond | IV. экономить |
| 5. furrow | V. оказывать предпочтение |
| 6. save | VI. мешать, препятствовать |

9. Подберите правильный перевод к русским словам:

- | | |
|------------------------------|------------------|
| I. оборудовать | 1. saturate |
| II. насыщать | 2. surround |
| III. окружать | 3. broadcast |
| IV. рядовой посев | 4. furrow method |
| V. разбросной посев | 5. equip |
| VI. метод посева по бороздам | 6. drill |

10. Подберите правильное определение к английским терминам:

- | | |
|-----------------|--|
| 1. a drill | I. a narrow trench made by a plow |
| 2. to drill | II. to sow seed on the surface of the land by hand or by machinery |
| 3. a furrow | III. to place seeds in the soil |
| 4. to broadcast | IV. to sow seeds with a drill |
| 5. to sow | V. an implement for sowing seeds and fertilizers in rows |
| 6. intertillage | VI. the use of implements between the rows |

11. Заполните пропуски подходящими по смыслу словами.

1. ... practices vary with the kind of crop. 2. Crops requiring ... are planted in rows. 3. Small grains ... very well to fertilizers. 4. ... saves seeds, and insures better germination. 5. ... seeding reduces yields of crops. 6. Rate of seeding is . . . by the fertility of the soil. 7. Drills are ... with fertilizer attachment.

Drilling, seeding, equipped, intertillage, delayed, respond, determined.

12. Переведите следующие интернациональные слова:

fact, practice, method, produce, date, section, acre, climate, uniform, season, recommendation, reason, guaranty, limit, start, nature.

13. Подберите синонимы к следующим словам:

- | | |
|-----------------|----------------------|
| 1. sow | I. region |
| 2. do well | II. intercultivation |
| 3. contaminate | III. capacity |
| 4. section | IV. seed |
| 5. intertillage | V. different |
| 6. profit | VI. return |
| 7. various | VII. infect |
| 8. ability | VIII. grow well |

14. Переведите следующие производные слова:

а) с префиксом **inter-**, имеющим значение «меж-, между-, сре- ди»:
interpenetration, inter-row, interconnect, interdependent, international, interplay, interrelation, inter-library, interaction, intercontinental, interlayer, intermixing;

б) с префиксами **counter-** и **anti-**, имеющими значение «противо-, контр-»:

counteract, counteraction, counteractive, counterbalance, counterwork;
antibiotic, antidote, antioxidant, antiseptic, antitoxin, antivitamin, antisocial;

в) с префиксом **non-**, имеющим значение «не-, без-, анти-»:
non-effective, non-essential, non-metal, non-party, non-productive, non-standard, non-stop, non-alcoholic.

15. Переведите на английский язык:

семя – сеять, плуг – пахать, вода – поливать, сорняк – полоть, урожай – давать урожай, корень – укореняться, растение – сажать, запас – запастись, задержка – задерживать, гниль – гнить, забота – заботиться, рядовая сеялка – сеять в рядки.

Грамматические упражнения

16. Определите функцию выделенных причастий I. Переведите причастия I в зависимости от их функции.

1. The **seeding** practice is ... 2. **Seeding** grains, farmers use ... 3. Crops **requiring** much moisture are ... 4. The **germinating** seeds require ... 5. **Choosing** the variety, we should take ... 6. The **yielding** ability of the variety is high. 7. **Taking** into consideration disease resistance, agronomists use...

17. Переведите предложения, обращая внимание на перевод причастия I. Помните, что причастие I, стоящее после подлежащего, может быть или определением или входить в независимый причастный оборот, который переводится на русский язык придаточным предложением с союзами «так как», «если», «когда», «в то время как».

Образец: **Small grain crops responding very well to fertilizers, most drills are equipped with fertilizer attachment.** Так как зерновые культуры очень хорошо реагируют на удобрения, большинство рядовых сеялок оборудованы приспособлениями для внесения удобрений.

1. Barley having a shorter growing season than oats ripens ahead of

them. 2. Seeds emerging from greater depths in sandy soil, than in clay soil, it is customary to plant deep in dry soil in order to place the seeds in contact with moisture. 3. The low yields being the result of moisture deficiency, a farmer should take it into consideration. 4. The higher seeding rates giving good results under unfavourable conditions are practiced under humid or irrigated conditions. 5. Factors determining the best time for seeding winter wheat will be discussed in chapter II. 6. Barley making its best growth after potatoes, sugar beet and corn, the most practical rotation includes those crops. 7. A leguminous green manure containing much nitrogen is turned under to add this element to the soil.

18. Переведите предложения с независимым причастным оборотом. Помните, что независимый причастный оборот, стоящий в начале предложения, переводится на русский язык придаточными предложениями с союзами «так как», «в то время как», «если», а стоящие в конце предложения – с союзами «причем», «между тем», «а», «и».

1. Crops responding very well to fertilizers, most drills are equipped with fertilizer attachment. 2. Seeding being delayed, farmers sow an unusually large quantity of seed to the acre. 3. Many crops respond very well to fertilizers, most drills being equipped with fertilizer attachment. 4. Grain drills place the seed at the desired depth, the seed being distributed uniformly over the ground. 5. The climate and season having an important bearing on the rate of seeding, farmers should take into consideration these factors. 6. Varieties varying greatly in their disease and insect resistance, it is highly desirable to choose the most resistant variety.

19. Переведите предложения с причастным оборотом, определив его функцию (определение, обстоятельство). Выделите предложения с независимым причастным оборотом.

1. Choosing the variety for his farm, a farmer should take into consideration its adaptability to the section. 2. The soil surrounding the seeds may remain saturated with water, interfering with germination. 3. Soils having insufficient water and nutrients for plants, farmers reduce seeding rates. 4. The seeding practices vary with the kind of crop. 5. Generally speaking, small grains are seeded broadcast. 6. A complete fertilizer being used, the percentage of nitrogen is usually low. 7. Grain drills are quite generally used at present, less seed is required. 8. Grains being sown, fertilizers are applied. 9. Varieties differing greatly in productiveness, we choose the highly yielding ability varieties.

20. Прочтите и переведите текст В.

SEEDING PRACTICES

It is well-known fact that seeding practices vary with the kind of crop. Generally speaking, the small grains are seeded (sown, planted) broadcast or in closely spaced drill rows. Corn, potatoes and some other crops requiring intertillage are planted in rows far enough apart to permit the passage of tillage implements.

Many trials have been made to compare the drill with the broadcast method, and in general the yields on an average favour the use of the drill as drilling saves seed, insures better germination, producing better yields. In some years, however, the broadcast method yields more than the drill one, because it is possible to seed an earlier date. Sometimes winter small grains are planted by the furrow method.

Small grain crops (wheat, barley, rye and oats) responding very well to fertilizers, most drills are equipped with fertilizer attachment.

The depth of seeding. The amount of rainfall has an important bearing on the seeding depth. In sections, where rainfall is heavy, most crops should be seeded comparatively shallow, because the soil surrounding the seeds may remain saturated with water, interfering with germination. In dry sections, however, it is necessary to place the seeds deep enough to bring them into contact with soil moisture. The larger the seed, the deeper it can be planted.

The time of seeding has an important bearing on the rate of seeding. Seeding being delayed beyond the best seeding date for the section, farmers sow an unusually large quantity of seed to the acre.

Rate of seeding is determined by a) the fertility of the soil, b) the amount of available moisture in the soil, c) the variety grown. Soils having insufficient water and nutrients for plants (soils lacking in fertility and moisture), farmers reduce seeding rates.

21. Ответьте на вопросы.

1. How are the small grains seeded?
2. What crops require intertillage?
3. What favours the use of the drill? Why?
4. What has an important bearing on the seeding depth?
5. In what section is it necessary to place the seeds deep? Why?
6. When do farmers sow a large quantity of seed to the acre?
7. With what are most drills equipped?

КОНТРОЛЬНЫЕ ЗАДАНИЯ

I. Прочтите и переведите без словаря текст С.

SEEDING SMALL GRAINS

1. Before grain drills were in common use, many acres of small grain crops were seeded broadcast. Grain drills are quite generally used at present. Grain drills place the seed at the desired depth, the seed being distributed over the ground. The climate and season having an important bearing on the rate of seeding, farmers should take into consideration the following recommendations. When winter small grains are sown in sections where winters are severe, it is necessary to sow more seed to the acre than in the sections where winters are mild, certain varieties of small grains requiring less seed per acre.

2. The depth at which small grains should be seeded will vary with the conditions: the kind of soil, moisture, preparation of the seedbed, and other factors. For example, wheat should be seeded deeper on sandy soil than on clay soil.

3. Too much water in the soil retards germination and induces rotting of seed in the ground. On the other hand, all seeds require moisture of germination and plants require water for growth. For this reason different methods of seeding are practiced in soils of different moisture conditions at seeding time.

4. Seeds of the different varieties of small grains vary greatly in the adaptability, purity, yielding ability, disease and insect resistance. Choosing the variety for his farm, a farmer should take into consideration the fact that a variety yields well in another region is no guaranty that it will do well in his region.

II. Дайте синонимичный заголовок тексту С.

III. Дайте заголовок 2-му и 3-му абзацам.

IV. Прочитайте в тексте С место, в котором описываются преимущества высева семян рядовой сеялкой (вразброс).

V. Исходя из содержания текста С, дополните следующие предложения:

1. Wheat should be seeded deeper ... 2. Choosing the variety for his farm, a farmer ... 3. When winter small grains are sown in section where winters are severe, it is

VI. Назовите по-английски основные способы посева.

VII. Переведите на английский язык:

урожайная способность, устойчивость к болезням, условия влаги, подготовка пашни (семенного ложа), зерновые, на акр, зерновая сеялка.

VIII. Переведите следующие производные слова, образованные при помощи префиксов отрицательного значения *in-, im-, ir-, de-, dis-, anti-, counter-, non-, un-*:

disappear, decomposition, discover, indirectly, unoccupied, irregular, anti-war, counterbalance, nonproductive, inorganic, decrease, non-effective.

IX. Найдите префиксы в следующих словах, объясните их значение и переведите слова на русский язык:

rebuild, non-acid, react, improperly, sub-tropical, overripe, interrelation, unusually, subdivide, unfertile, underdeveloped, unlike, subsoil, immature, insufficient, unsuitable, over-water, inability, inadvisable, inadequate.

X. Переведите следующие сочетания слов, содержащие слова одного словообразовательного ряда:

a) *pure a, purity n*:

pure water, pure metal, pure seed, pure variety; the purity of water, the purity of seed, the purity of a substance;

b) *adapt v, adaptability n, adaptable a, adaptation n*:

plants adapt, varieties that do not adapt, varieties that better adapt; the adaptability of plants, to evaluate the adaptability, the characteristics of adaptability; the adaptable crop, the adaptable organism, the adaptable bacteria; the adaptation to the soil, the adaptation to the climate;

c) *vary v, variety n, various a*:

plants vary, plants that do not vary, to vary in yielding ability; the practices vary, the variety varies, the adaptable variety, various operations;

d) *able a, ability n, unable a, inability n*:

he is not able, he is unable, his ability, his inability, the plant ability to grow, the ability to adapt.

XI. Ответьте на следующие вопросы:

1. Как установить словарную форму следующих причастий? Controlling, applying, producing, increasing, beginning.

2. Как переводится причастие I в функции а) определения и б) обстоятельства?

1. Growing vegetables, they applied fertilizers.

2. The farmer growing vegetables should apply fertilizers.

3. Как переводится самостоятельный причастный оборот, где при наличии запятой и нового подлежащего стоит причастие I вместо глагола в личной форме?

1. Too much water in the soil retards germination, rotting of seed in the ground taking place. 2. A soil being supplied with organic matter, a water-holding capacity is increased.

XII. Выделите в тексте С 3 предложения с самостоятельным причастным оборотом и переведите их.

APPENDIX

СПИСОК СИНОНИМОВ

ability (for)	n	= capacity (for) absorb v = take in
abundant crop		= heavy crop, rich harvest
adapt	v	= adjust
adaptability	n	= adjustability
adaptation	n	= accomodation
amount	n	= quantity, number
apart	adv	= separately
approximate	a	= rough
area	n	= region, district
at present		= today
attack	v	= affect
availability	n	= accessibility
available	a	= accessible
bearing	n	= meaning
begin	v	= start
beneficial	a	= profitable
branch	n	= field
cause	n	= reason
cereals	n	= grains
collectively	adv	= in all, all together
compact	a	= firm
competition	n	= emulation
complete	a	= full
complett	v	= finish, end, come to an end
compose	v	= make up
considerable	a	= large
consist (of)	v	= be made of
consume	v	= take in
contaminate	v	= infect
content	n	= matter
cropping	n	= cultivation
crop production		= plant growing, crop science
cultivate	v	= 1. till 2. grow, raise
decomposition	n	= decay
deep	a	= profound
deficiency (in)	n	= lack (of), shortage (of)

deficient	a	= insufficient, inadequate
delay	v	= keep off
destroy	v	= kill, eliminate, remove, ruin
different	a	= various
do well	v	= grow well
earth	n	= land
efficient	a	= effective
enough	a	= sufficient
essential	a	= material, considerable, important
every	pron.	= each
experiment	n	= test, trial
fall	n	= autumn
famer	n	= grower, cultivator, agriculturist
favour	v	= promote
feed	n	= fodder, forage
fertile	a	= rich
fertilization	n	= fertilizing
fruiting	n	= bearing fruits
generally	adv	= usually
get	v	= receive, obtain
grain	n	= seed, corn
healthy	a	= strong, sound
humid	a	= moist, damp, wet
improve	v	= make better
interfere	v	= prevent (from)
introduction	n	= applying
labour	n	= work
lastly	adv.	= at last
legume	n	= leguminous plant
like	a	= similar (to), such a (an)
loose	a	= mellow
low	a	= bad, poor, inferior
lower	v	= reduce
main	a	= basic, principal, chief
make an experiment	v	= conduct an experiment
many (much)	pron.	= plenty of, a lot of
matter	n	= material, substance
mature	a	= ripe
maturity	n	= ripeness

meet	v	= satisfy
modern	a	= up-to-date, contemporary
moist	a	= wet, humid, damp
moisten	v	= 1. wet 2. water
moisture	n	= humidity, wet, dampness
n. need	n	= necessity
need	v	= want, require
next	a	= following
nutrient	n	= plant food
often	adv	= frequently
originate	v	= come of
p. prime	a	= primary
produce	v	= manufacture, make
promote	v	= stimulate, increase
proper	a	= just, appropriate
provide	v	~ supply
pulverize	v	— loosen
purpose	n	= aim, goal, object, end
rapid	a	= fast, quick
release	v	= set free
requirement	n	= need
research	n	= analysis, investigation
resist	v	= withstand
result (from)	v	— spring from
result (in)	v	= end, finish, come to an end
rot	v	= decay
s. save	v	= economize
seed	v	= sow, plant
soil	n	1. ground 2. land
species	n	= kind, sort, variety
supply	n	= reserve
supply	v	= furnish, provide
till	v	= cultivate
tillage	n	= cultivation
tissue	n	= texture
too	adv.	= 1. very 2. also
trace element		= microelement
turn under	v	= plow under
yield	n	= crop, harvest

СПИСОК АНТОНИМОВ

Absorb	v	– secrete
abundant	a	– poor
adequate	a	– inadequate
always	adv	– never
available	a	– unavailable
damage	n	– advantage
deep	a	– shallow
deficiency	n	– abundance
deficient	a	– sufficient
deplete	v	– enrich
destroy	v	– build, create
easy	a	– difficult
favourable	a	– unfavourable
fine	a	– rough
healthy	a	– unsound
heavy	a	– light
high	a	– low
humid	a	– dry, arid
improve	v	– make worse
include	v	– exclude
increase	v	– decrease
late	a	– early
light	a	– heavy
like	a	– different
loose	a	– compact
loss	n	– return
m. main	a	– secondary
major element	n	– microelement
mature	a	– immature
moist	a	– arid
moisture	n	– dryness
more	adv.	– less
prevent	v	– stimulate
regular	a	– irregular
result in	v	– result from
seldom	adv.	– often
similar	a	– unlike
small	a	– large

sufficient	a	– deficient
wet	a	– dry
wild	a	– cultivated
within	prep.	– outside

СПИСОК СЛУЖЕБНЫХ СЛОВ

according to – согласно
 although – хотя
 and – и
 as...as – так ... как
 as far as – до; настолько
 as for – что касается
 as if – как будто
 as long – пока; если
 as soon as – как только
 as to – что касается
 as regards – касательно
 as well as – как и; так и
 as well – также
 as though – как будто бы
 at last – в конце концов; наконец
 at least – по крайней мере
 because – потому что
 because of – из-за
 before – прежде чем
 besides – кроме того; помимо
 both... and... – как... так и...
 but – но; кроме; лишь
 by means of – посредством
 considering – принимая во внимание
 contrary to – против; напротив того
 either... or... – либо...либо, или...или
 except – разве что, если не
 except for – за исключением
 excluding – исключая
 for – так как
 how – как
 however – однако
 if – если; ли (при глаголе)

in as much as – ввиду того, что; так как
in case – в случае
in consequence of – вследствие
in order to – с целью
in regard to – в отношении, относительно
in so far as – настолько, до тех пор пока
in spite of – несмотря на
instead of – вместо
neither... nor... – ни ...ни...
nevertheless – тем не менее
not in the least – ничуть, нисколько
not so... as... – не так... как
notwithstanding – не смотря на
on account of – из-за; вследствие
once – как только
provided – при условии, что
regardless – не взирая на; не считаясь с

СОДЕРЖАНИЕ

Введение.....	3
Lesson 1.....	4
Lesson 2.....	16
Lesson 3.....	28
Lesson 4.....	39
Lesson 5.....	51
Lesson 6.....	62
Lesson 7.....	73
Appendix	85

Учебное издание

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АНГЛИЙСКИЙ ЯЗЫК

CROP GROWING

Учебно-методическое пособие

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