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ЗАЩИТА РАСТЕНИЙ

(в курсе АНГЛИЙСКого ЯЗЫКа)

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В учебном пособии излагается грамматический материал, на основе которого осуществляется формирование коммуникативных компетенций. Приведены списки терминов, лексические материалы и тексты профессиональной направленности. Издание способствует формированию навыков использования английского языка в профессиональной сфере.

Предназначено для обучающихся по направлению подготовки 35.03.04 Агрономия.

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**ПРЕДИСЛОВИЕ**

Учебное пособие предназначено для обучения английскому языку в неязыковом вузе по программе бакалавриата (направление подготовки 35.03.04 Агрономия). Пособие разработано в соответствии с рабочей программой дисциплины «Иностранный язык» и направлено на выполнение предусмотренных ею задач.

Основной целью учебного пособия является формирование коммуникативной компетенции, умений и навыков, необходимых для профессионального общения на иностранном языке. Теоретическая часть пособия представлена в виде описания грамматических явлений, категорий и правил, сопровождаемых примерами, таблицами и заданиями для контроля усвоения грамматического материала. Работа состоит из пяти разделов (Units) для аудиторной и самостоятельной работы. Разделы включают в себя следующую тематику: Causes of plant diseases, General means of control, Diseases of wheat, Diseases of barley, Diseases of oats. Каждый раздел пособия состоит из трех подразделов (Sections): Grammar, Vocabulary and word study, Reading and speaking. Подраздел Grammar представляет информацию по грамматическим темам, необходимым для работы с профессионально ориентированными материалами на английском языке. Подраздел Vocabulary and word study содержит тематическую лексику раздела и комплекс лексико-грамматических заданий, направленный на формирование навыков применения профессиональных терминов на основе грамматического материала. Подраздел Reading and speaking содержит тексты профессиональной направленности и задания, нацеленные на формирование устной речи. Учебное пособие разработано старшим преподавателем кафедры иностранных языков КубГАУ Т. Е. Тапехиной. Автор будет признателен за отзывы, которые можно направлять по электронному адресу inostrannyh-jazykov@kubsau.ru

**UNIT 1. CAUSES OF PLANT DISEASES**

**Section 1. Grammar**

**Active and Passive Voices**

**Залог** – одна из важнейших грамматических категорий глагола. Залог – это способ выражения взаимоотношений между действием, его исполнителем и объектом, на который это действие направлено. В зависимости от характера этих взаимоотношений выделяют два типа залога: активный залог (Active Voice) и пассивный (страдательный) залог (Passive Voice), которые, как грамматическая категория, соответствуют действительному и страдательному залогам в русском языке.

He did this work quickly. Он выполнил эту работу быстро.

This work was done by him quickly. Эта работа была выполнена им быстро.

Частота использования пассивного залога глагола в английском языке выше, чем в русском, поэтому при построении и переводе пассивных грамматических конструкций часто возникают трудности. Для понимания данной грамматической категории, необходимы теоретические сведения и рассмотрение закономерностей и примеров использования активного и пассивного залогов английского глагола.

**Активный (действительный) залог (Active Voice)** используется в том случае, когда лицо или предмет, выраженное подлежащим, совершает действие. Слово «активный» произошло от «active», что значит «действующий», поэтому данный тип залога также называют действительным.

Yesterday I lost my wallet. Вчера я потерял свой бумажник.

Tomorrow I am meeting my friend at the airport. Завтра я встречаю своего друга в аэропорту.

We drink coffee every morning. Мы пьем кофе каждое утро.

Подлежащее в этих предложениях является «инициатором» действия.

Видо-временные формы английского глагола в активном залоге приведены в таблице.

**Active Voice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Simple** | **Continuous** | **Perfect** | **Perfect Continuous** |
| **Present** | call(s) | am/is/are calling | have/has called | have/has been calling |
| **Past** | called | was/were calling | had called | had been calling |
| **Future** | will call | will be calling | will have  called | will have been  calling |

**Пассивный (страдательный) залог (Passive Voice)** используется в случаях, когда над предметом – подлежащим совершается действие со стороны дополнения. Часто дополнение может только подразумеваться, не будучи представленным в предложении. Пассивная форма чаще всего встречается в научной литературе, но также используется в следующих случаях: если действующий предмет неизвестен или нет возможности его выразить, если автор акцентирует внимание не на действующем предмете, а на объекте, на который направлено действие.

**Образование пассивного залога**

Для того чтобы образовать форму глагола в пассивном залоге, употребляется вспомогательный глагол to be в соответствующем времени, лице и числе и причастие прошедшего времени (Participle II) основного (смыслового) глагола.

Young trees will be planted next spring. Молодые деревья будут посажены будущей весной.

The message has been sent. Сообщение отправлено.

Следует отметить, что пассивных конструкций не существует для времени Future Continuous – вместо него используется Future Simple, и для времен Present Perfect Continuous, Past Perfect Continuous и Future Perfect Continuous – вместо них используется Present Perfect, Past Perfect и Future Perfect соответственно.

**Passive Voice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Simple** | **Continuous** | **Perfect** | **Perfect Continuous** |
| **Present** | am/is/are called | am/is/are being called | have/has been called | – |
| **Past** | was/were called | was/were being called | had been called | – |
| **Future** | will be called | – | will have been called | – |

Действующее лицо, которым выполняется действие, в предложениях с пассивным залогом вводится предлогом **by**:

Wheat was harvested by the farmers in time. Урожай пшеницы был убран фермерами вовремя.

Дополнение с предлогом by часто отсутствует в страдательном обороте:

This house was built in 1960. Этот дом был построен в 1960 году.

После глагола в страдательном залоге употребляется также дополнение с предлогом **with** для выражения орудия (инструмента), при помощи которого совершается действие:

The paper was cut with a knife. Бумага была разрезана ножом.

**Отрицание и вопрос в Passive Voice**

В отрицательных предложениях частица **not** ставится после вспомогательного глагола, а если их несколько, то после первого из них:

He has not been seen anywhere. Его нигде не видели.

В вопросительных предложениях вспомогательный глагол (или первый из них) выносится на место перед подлежащим:

Was he invited by his friends?

Он был приглашен своими друзьями?

В вопросительных предложениях с who, whom, which и другими вопросительными словами всегда ставится by/with для указания лица, выполняющего действие.

Who was the window broken by? Кто разбил окно?

What was the road destroyed by? Кем была разрушена дорога?

Глагол let в пассивном залоге заменяется на be allowed to.

He lets me drive his car. Он разрешает мне водить его машину.

I am allowed to drive his car. Мне разрешается водить его машину.

**Различия в употреблении Active** и **Passive Voice**

Active Voice определяет действие, исходящее от лица или предмета. Например, I cleaned a swimming pool. Я почистил бассейн.

Passive Voice определяет действие, направленное на лицо или предмет. Сравните: The swimming pool was cleaned by me. Бассейн был мной почищен.

Сказуемые в обоих предложениях: Buy – was bought указывают на то, что активный и пассивный залоги имеют морфологические различия.

**В сравнительных формах слова, которые являются подлежащими в активном залоге, становятся дополнениями в пассивном, а дополнения, наоборот, выполняют роль подлежащего, то есть меняются местами.**

Сопоставление действительного оборота с параллельным ему страдательным оборотом показывает следующее:

а) дополнение действительного оборота служит подлежащим в страдательном обороте;

б) глаголу в действительном залоге соответствует глагол в страдательном залоге в том же времени;

в) подлежащее действительного оборота служит в страдательном обороте дополнением с предлогом by, соответствующим в русском языке дополнению в творительном падеже (отвечающему на вопросы кем? чем?).

Сказуемому действительного оборота, выраженному сочетанием одного из модальных глаголов can (could), may (might), should, ought, to have, to be с инфинитивом действительного залога, соответствует в страдательном обороте сочетание того же модального глагола с инфинитивом страдательного залога.

Существует ряд глаголов, которые не употребляются в пассивном залоге. Они называются непереходными: в предложении после них не следует прямое дополнение (объект, на который переходит действие). I live in Moscow. – Я живу в Москве. Глагол live непереходный, его нельзя употребить в форме пассивного залога.

**Способы перевода страдательных оборотов   
на русский язык**

Пассивный залог в зависимости от своей структуры может переводиться с помощью неопределенно-личной формы глагола (He was written about in local newspaper. О нем написали в местной газете.), предложением в активном залоге (The Apple company was found by Steve Jobs. Компанию Apple основал Стив Джобс), конструкцией с глаголом «быть» (в соответствующем времени, лице и числе) + страдательное причастие в краткой форме (The lunch was cooked by chef. Ланч был приготовлен шеф-поваром.), глаголами с возвратной частицей -ся (The key was found. Ключ нашелся).

Иногда английский страдательный оборот можно перевести двумя или даже всеми тремя способами в зависимости от соответствующего русского [глагола](http://study-english.info/verb.php) и контекста.

Поскольку для каждого действительного оборота со сказуемым, выраженным переходным глаголом, можно построить параллельный страдательный оборот, распространенной ошибкой является употребление страдательных оборотов вместо действительных. Следует иметь в виду, что страдательные обороты, механически употребленные вместо действительных, звучат, как и соответствующие им страдательные обороты в русском языке, неестественно. Сравните:

English books are taken by my son from the library. Английские книги берутся моим сыном в библиотеке.

My son takes English books from the library. Мой сын берет английские книги в библиотеке.

Как и в русском языке, страдательные обороты употребляются в тех случаях, когда лицо, совершающее действие, неизвестно или когда считают ненужным его упомянуть. Мысль, выраженная таким страдательным оборотом, не может быть выражена действительным оборотом ввиду отсутствия лица, совершающего действие, которое могло бы служить подлежащим действительного оборота.

**Task 1. Open the brackets using the verbs in Active Voice or Passive Voice.**

1. Nobody (to see) him yesterday. 2. The message (to receive) tomorrow. 3. The answer to this question (to find) in the encyclopedia. 4. We (to show) the laboratory to the delegation next week. 5. Moscow University (to found) by Lomonosov. 6. They (to repair) the clock now. 7. The window (to break) today. 8. I (to leave) my gloves at home. 9. The trees (to plant) in October. 10. The room (to clean) very quickly.

**Task 2. Change Active to Passive.**

1. They teach three foreign languages at this school. 2. We received this letter after his departure. 3. Have dogs ever attacked you? 4. Bees gather honey from flowers. 5. The storm drove the ship against a rock. 6. They are selling delicious fruit ice cream there now. 8. The old man showed us the way out of the wood. 9. We have been looking for you the whole morning. 10. He has just written this computer program.

**Section 2. Vocabulary and word study.**

**Active Vocabulary. Text A.**

|  |  |
| --- | --- |
| 1) fungus, fungi | гриб, грибы |
| 2) cause | причина, вызывать |
| 3) establish | устанавливать |
| 4) relationship | родство, взаимоотношения |
| 5) conspicuous | заметный |
| 6) damage | ущерб |
| 7) mold | плесень |
| 8) minute | крошечный, мельчайший |
| 9) manufacture | производство, производить |
| 10) raindrop | капля дождя |
| 11) nutrition | питание |
| 12) thereby | поэтому, посредством этого |
| 13) stem rust; to rust | стеблевая ржавчина, ржаветь |
| 14) appearance | внешний вид, появление |
| 15)with naked eye | невооруженным глазом |
| 16) inch | дюйм |
| 17) waste | заброшенный, выброс, терять |
| 18) send out | выпускать |
| 19) germinate; germ | прорастать, росток |
| 20) penetrate | проникать, просачиваться |
| 21) inside | внутри |
| 22) branch | ветвь, ветвиться сеть |
| 23) network | сеть |
| 24) sporulate | выбрасывать споры |
| 26) plentiful | обильный, плодородный |
| 27) abundant | обильный, изобилующий |
| 28) build up | накапливать, созревать |
| 29) rupture | перелом, разрыв |
| 30) absorption | поглощение |
| 31) evaporation | испарение |
| 32) gray speck | серая пятнистость |

**Task 1. Read and translate the international words.**

Type, parasitic, characteristic, mass, reproductive, spore, diameter, distance, absorb, epidemic, microorganism, chlorophyll, energy, produce, minerals.

**Task 2. Read and translate the following adverbs.**

Absolutely, usually, partly, generally, really, actually, fortunately, chiefly, extremely, collectively, individually, readily, eventually, properly, particularly.

**Task 3. Give Russian equivalents of the following English words. Use a dictionary, if it is necessary.**

Disease, plant, matter, food, enable, depend on, examples, units, leaves, moisture, adapt, extract, fall.

**Task 4. Read and translate the following word combinations.**

Green coloring matter; some have become able to grow...; powdery masses; invade plant; rusted plants; too small to be seen; carried great distances; in the presence of...; once inside a plant; in this manner.

**Task 5. Choose an appropriate form of the verb in brackets paying attention to** **Active and** **Passive Voices.**

1. When crops (grow, are grown) over and over again there is a tendency for the diseases.

2. History (has recorded; has been recorded) many plant disease epidemics.

3. Stem rust and leaf rust of wheat (survive, is survived) the winter on winter wheat.

4. Different fungi (attack; are attacked) field crops.

5. Bunt (cause; is caused) by fungi.

6. Healthy tissue (infect; is infected) by bacteria.

7. Viruses can (see, be seen) only by means of the microscope.

8. Viruses can (thrive, be thrived) only in living tissue.

**Section 3. Reading and speaking.**

**Task 1. Read and translate Text A.**

**TEXT A**

**CAUSES OF PLANT DISEASES**

Most diseases of field crops are caused by microorganisms that have established a parasitic relationship with the plants. Of these microorganisms, the fungi cause most damage. Fungi, or molds as they are sometimes called, are actually minute plants that cannot produce chlorophyll, the green coloring matter that enables the higher plants to use the energy of light to manufacture food from air, water and the minerals of the soil. Fungi are thus dependent on food produced by green plants. Some have become able to grow on dead matter in the soil. Mushrooms are examples of this type of fungus. Other fungi adapted themselves to a parasitic existence and extract nutrition from the plants on which they grow, thereby often doing severe damage to them.

Those, who study plant diseases, and attempt to devise measures for their control, need to understand how these microorganisms invade plants, how they grow in them, and how they survive from year to year.

Stem rust of wheat is an example of a plant disease caused by a fungus. The characteristic red appearance of rusted plants is caused by masses of spores, the reproductive units of the fungus. Individually, these spores are too small to be seen with the naked eye, for each spore is only one thousandth of an inch in diameter. Collectively, they make up conspicuous, red powdery masses containing millions of spores. These spores are readily carried great distances by winds and, though many of them are wasted, some fall on leaves or stems of wheat plants.

In the presence of moisture, such as dew or raindrops, the spores germinate by sending out germ tubes, which grow along the surface of leaves, or stems and penetrate the plants through the numerous pores (stomata) on the plant surfaces. Once inside a plant, the germ tube grows and branches into a network of tubular structures that absorb food materials from the plant.

In eight or ten days the fungus network sporulates, that is, produces a mass of new spores. In this manner, a single spore can infect a plant and produce, in a little more than a week, one hundred thousand or more spores. This process is repeated over and over again during the summer so long as wheat plants remain green. If spores are plentiful and moisture is abundant, a rust epidemic can build up in a few weeks.

Damage to a plant is done partly by absorption of food by the fungus but chiefly by the drying up of plant caused by evaporation of water through the numerous ruptures of the plant surface by the spore masses of the fungus.

**Task 2. Find in the text the equivalents of the following words and word combinations.**

Грибковая сетка ветвится; производить сотни тысяч спор; приспосабливать себя; нанося большой ущерб; видимый невооруженным глазом; такие как роса и капли дождя.

**Task 3. Revise Active and Passive Voices (see the charts in Section 1) and fulfill the following tasks:**

**а) Make up your own sentences in Present, Past and Future Simple, Continuous and Perfect, Active or Passive.**

**b) Find in the text the sentences in Passive Voice and translate them.**

**Task 4. Describe the appearance of stem rust.**

**Task 5. Answer the questions to Text A.**

1. What microorganisms cause most damage?

2. What are fungi?

3. What are fungi dependent on?

4. Why do fungi do severe damage to the plants?

5. What disease is caused by a fungus?

6. What are spores?

7. In what conditions can the spores germinate?

8. When does the fungus network sporulate?

9. Why can a rust epidemic build up?

**Task 6. Read Text B and answer the questions:**

1. What parts of plant can bacteria infect?

2. How can bacteria spread?

3. What are viruses?

4. How can virus diseases be transmitted?

**TEXT В**

**BACTERIA**

Bacteria, though less important than fungi, cause diseases of many crops. The bacteria that cause plant diseases are rod - shaped and about one ten-thousandth of an inch long. Bacterial infection causes distinctive, water soaked spots on the leaves of many kinds of plants. Bacteria also invade the young rootlets or wounded roots of certain plants and plug the vessels carrying water to their leaves. The infection makes the plants wilt and eventually die. Bacteria are spread from infected to healthy tissue by splashing rain. They are also spread on inside infected seed or by windblown infected plant debris. Like many other disease organisms, bacteria can survive the winter on plant remains and reproduce disease the following spring.

Viruses.

Diseases caused by viruses have been investigated less than those caused by fungi and bacteria but they are nevertheless of considerable economic importance. The question of whether or not viruses are microorganisms is debatable. Some prefer to look upon them as nonliving chemical structures. However that may be, they are extremely small particles, so small that they can be seen only by means of the electron microscope, which magnifies many thousands of times. They can thrive only in living tissues, where they multiply and cause disease. Some virus diseases can be transmitted from plant to plant merely by the rubbing of one leaf against another. Most of them, however, are transmitted by insects such as aphids, leafhoppers or mites, which, in the course of feeding, transfer the viruses from one plant to another. Virus particles usually do not survive in dead plant tissues. They overwinter in perennial or biennial weeds and in some cases inside seed from infected plants.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) rod-shaped | палочковидные |
| 2) plug | закупоривать |
| 3) thrive | развиваться |
| 4) rub | тереть, касаться |
| 5) mite | клещ |
| 6) leafhopper | листовая блоха |
| 7) perennial | многолетние |
| 8) biennial | двулетние |

**Task 7. Find in the text the equivalents of the following word combinations.**

1/10 дюйма длиной; чёткие мокрые пятна; закупорить сосуды; несущие воду; раздуваемые ветром зараженные остатки растений; неживые химические структуры; увеличивать в тысячи раз; трением одного листа о другой; мёртвые ткани растения; в процессе питания; в некоторых случаях.

**Task 8. Which pathogens causing plant diseases do you know? Enumerate them.**

**Task 9. Read Text C and choose the title from the list given below.**

1. Improper nutrition;

2. Nutritional diseases;

3. Nutritional deficiencies;

4. Soil condition.

**TEXT С**

Besides diseases caused by parasitic there are a number of unhealthy of growing plants, regarded as diseases that are caused by improper nutrition. These conditions can be corrected if their cause is understood. Fortunately, the appearance of affected plants usually provides the clue to their cause.

To grow properly, all plants require minerals from the soil in definite quantities. Most nutritional diseases result from an underdose or an overdose of particular soil chemicals.

For example, too little nitrogen in the soil, in the spring, before nitrifying soil bacteria have built the nitrogen up to its usual level, gives plants a yellow «chlorotic» appearance. In cereals, this condition can be prevented by applying a nitrogenous fertilizer when seeding the grain.

Deficiency of manganese causes the gray speck disease of oats, which can be prevented by drilling manganese sulphate into the soil with the seed. In certain districts, patches of alkaline ground are common.

These result from the accumulation of certain chemicals to a level at which they interfere with plant growth. This soil condition is not cure but it is well to remember that certain plants can tolerate alkalinity better than others.

For instance, barley can grow satisfactorily in alkaline patches in which wheat will not thrive. Some types of chlorosis, or leaf yellowing, are caused by an overabundance of one chemical, which tends to render another chemical unavailable.

Overabundance of lime tends «to bind» iron, that is, to hold it chemically in a form that plants cannot use. This can sometimes be remedied by spraying affected plants with a solution of iron sulphate.

**Task 10. Complete the sentences using the words given below.**

1. Unhealthy conditions can sometimes … .

2. Oats can also … on land which is moderately acid.

3. The gray speck disease can … by applying manganese sulphate.

4. Certain plants can … alkalinity better than others.

5. Barley can … in alkaline patches.

6. Most nutritional diseases … from an underdone of particular soil chemicals.

7. Deficiency of manganese causes … disease of oats

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

be grown; be corrected; result; be prevented; grow; tolerate; gray speck.

**Task 11. Find in Text C the equivalents of the following words.**

Рассматривать; считать; ряд; несколько; вызывать; питание; ключ; ответ; определённое количество; нитрифицирование; посев; серая пятнистость; участок земли; исправлять; лечить; развиваться; избыток; известь; раствор; сульфат железа.

**Task 12.** **Using the information from Text C explain, why all plants require minerals in definite quantities.**

**UNIT 2. GENERAL MEANS OF CONTROL**

**Section 1. Grammar**

**Модальные глаголы (Modal Verbs)**

**Степени сравнения прилагательных и наречий**

**(Degrees of Comparison)**

**Модальные глаголы (Modal Verbs)**

Глаголы **can, may, must, should, ought, need** относятся к группе модальных глаголов ([Modal Verbs](http://study-english.info/modal.php)). [Модальные глаголы](http://study-english.info/modal.php) употребляются в сочетании с инфинитивом смыслового глагола. Они обозначают возможность, способность, вероятность, необходимость совершения действия, выраженного смысловым глаголом.

Не can do it himself. Он может сделать это сам.

They may come tonight. Они, может быть, придут сегодня вечером.

Для правильного употребления модальных глаголов необходимо различать модальные категории:

**Способность**

Главный выразитель физических, умственных и иных способностей для выполнения действий – [глагол **can**](https://speakenglishwell.ru/glagol-can-v-anglijskom-yazyke-znacheniya-formy-upotreblenie/), который переводится на русский язык в значении «могу, умею».

We can speak Spanish well. Мы хорошо умеем говорить по-испански.

Он не изменяется по лицам и числам. Кроме того, **can** самостоятельно, без вспомогательных глаголов, создает вопросы и отрицания.

Can she write verses? Она умеет писать стихи?

My children can’t read yet. Мои дети еще не умеют читать.

Next year I will be able to speak Polish fluently. В следующем году я смогу бегло говорить по-английски.

**Формальные возможности, просьбы и разрешения**

Формальные возможности, то есть возможности, связанные с внешними обстоятельствами, выражаются **[may](https://speakenglishwell.ru/modalnyj-glagol-may-formy-i-situatsii-upotrebleniya/" \t "_blank)** и его формой прошедшего времени **might**. Он переводится как «мочь», но в значении разрешения и возможности, близком к своему синониму **to be allowed to** (быть позволенным).

We may play football on Friday. Мы можем сыграть в футбол в пятницу.

Часто можно встретить использование **may** в вопросительной форме в качестве просьбы.

May Jack visit us? – Можно Джек навестит нас?

Часто для выражения просьбы используется глагол **can.**

Can I speak to Jane? Могу я поговорить с Джейн?

**Необходимость, запреты, предположения и советы**

Категоричную необходимость выражает [модальный глагол **must**](https://speakenglishwell.ru/modalnyj-glagol-must-pravila-primery/). Он выражает долженствование, определенное человеком для себя самостоятельно, т. е. это не внешнее давление, а принятие решения по личным мотивам и принципам.

I must go home. Я должен пойти домой.

В отрицательной форме данный глагол играет роль строгого запрета, практически приказания.

You mustn’t  talk that way with your parents. Ты не должен говорить со своими родителями в таком тоне.

Must не образует будущее и прошедшее время. Эти формы образуются при помощи эквивалентов be to/ have to.

Основное назначение have to – указание на вынужденную необходимость совершения действия, т. е. на внешние обстоятельства.

We had to make the report yesterday. Мы должны были сделать этот отчет вчера.

She has to go to the office on Saturday.  Она вынуждена пойти в офис в субботу.

Do I have to make this report? Я должен сделать этот отчет?

Оба глагола также используются для выражения предположений, но must употребляют в этой роли чаще, чем have to. В переводе на русский язык это значение выражено вводным сочетанием «должно быть».

It must be true. Это, должно быть, правда.

Если необходимость и долг возникли в результате предварительной договоренности, то используется эквивалент be to. Он изменяется по числам и лицам, и означает «должен, обязан», предполагая предварительную договоренность.

The driver is to meet you at 3 o’clock. Водитель должен встретить тебя в 3 часа.

Эта форма может применяться в прошедшем и будущем времени, причем в конструкции будущего to be заменяется на to have.

The guide will have to meet this delegation next Monday – Экскурсовод должен встретить эту делегацию в следующий понедельник.

Настоятельный совет выражают глаголы **[should](https://speakenglishwell.ru/modalnyj-glagol-should/" \t "_blank)** и**[ought to](https://speakenglishwell.ru/ought-to-modalnyj-glagol/" \t "_blank).** У них одна форма, поэтому они употребляются только в настоящем времени.

You ought to help your little brother.  Тебе следует помогать младшему брату.

**Эквиваленты модальных глаголов**

Модальные глаголы имеют эквиваленты. При помощи эквивалентов может образовываться любая временная форма модальных глаголов. При этом глаголы to be и to have употребляются в личной форме Present, Past или Future Simple.

**Личные формы глагола to be**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Present** | | **Past** | | **Future** | |
| I am | We are | I was | We were | I will be | We will be |
| You are | You are | You were | You were | You will be | You will be |
| He  She is  It | They are | He  She was  It | They were | He  She will be  It | They will be |

You **can** come today=You **are able** **to** come today.

You **could** come yesterday=You **were able to** come yesterday.

You **will be able** to come tomorrow.

В Present Simple глагол **have to** имеет две формы: для 3-его лица ед. ч. – has, для остальных лиц – have. Вопросы и отрицания строятся при помощи вспомогательных глаголов do/ does.

Do you have to meet her at the station?

Вам надо встретить ее на вокзале?

В Past Simple используется форма had to и вспомогательный глагол did соответственно, во Future Simple – форма will have to, при этом вспомогательный глагол will ставится на первое место в вопросительном предложении.

Did you have to meet her at the station?

Will you have to meet her at the station

**Modal Verbs**

|  |  |  |  |
| --- | --- | --- | --- |
| Present | Эквиваленты | Past | Future |
| Can | to be able to | сould | will be able to |
| May | to be allowed to | might | will be allowed to |
| Must Should  Ought | to be to/have to | was to  were to  had to | will be to  will have to |

**Отрицательная форма** **модальных глаголов** образуется при помощи частицы not, которая ставится непосредственно после модального глагола. В настоящем времени can пишется слитно с not.

He cannot do it. You may not take it. He must not go there.

Также в отрицательной форме часто употребляются сокращения, например: **can’t**, **couldn’t**, **mustn’t**, **needn’t** и др.

**В вопросительных предложениях** [модальный глагол](http://study-english.info/modal.php) стоит на первом месте либо сразу после вопросительного слова.

Can I help you? Могу я вам помочь?

Who can do it? Кто может это сделать?

**Отличительные свойства модальных глаголов**

1.Не имеют окончания -**s** в 3-м лице единственного числа настоящего времени.He can do it. He may take it. He must go there. He ought to help him. Need he do it?

2.Не имеют неличных форм (инфинитива, герундия и причастия)

3.Не употребляются как отдельный член предложения – простое глагольное сказуемое, но только в сочетании с еще одним, не модальным, глаголом в форме инфинитива без частицы **to** (кроме **ought** и иногда **need**), образуя составное глагольное сказуемое. I must go there. Я должен пойти туда. You needn't do it. Вам не нужно делать этого. Но: You ought to help him. Вам следовало бы помочь ему.

4.Вопросительная и отрицательная формы модальных глаголов образуются без вспомогательного глагола: в вопросительных предложениях модальный глагол ставится перед подлежащим, в отрицательных – после него ставится отрицание **not**.Can you do it? May I take it? Must he go there? Ought he to help him? Need he do it? He oughtn’t to help him. He needn’t do it.

5. Не имеют формы прошедшего времени кроме **can** (**could), may** (**might**) и аналитических форм (будущего времени, продолженного вида, перфектных форм и форм страдательного залога). В случае необходимости вместо отсутствующих форм используются **эквиваленты** модальных глаголов.

**Task 1. Translate the sentences paying attention to modal words and their equivalents.**

1. May I return the book to you on Friday? I’m afraid I will not be able to finish it before. – No, that’s too late. You will have to bring it to me not later than on Wednesday. 2. They spent all the morning on the river bank. Only Ann had to return home as she couldn’t stay in the sun for such a long time. 3. How do you feel when you are to take a test? – I’ m always a little frightened. 4. She can decorate a room nicely. 5. Hurry up! We must not be late! 6. Perhaps we’ll be able to meet next week. 7. I can’t believe! I failed another test! – You should learn grammar rules better. 8. He has got a lung problem and he must go to hospital every two weeks. 9. Ann could not go to Nick’s birthday party yesterday because she had to go to the dentists. 10. You should take medicine three times a day. You mustn’t stop taking it until you have finished all pills. Don’t forget, you are to drink water as much as you can. You will be allowed to get up tomorrow, but you should relax for a few days.

**Task 2. Fill in the gaps using appropriate forms of modal verbs and their equivalents.**

1. You … not come to help them tomorrow: the work is done. 2. You … not change the whole text as the beginning is all right. You … rewrite only the second part of it yesterday. 3. … he speak English in childhood? 4. My neighbours … grow their own vegetables last summer. 5. … you turn the music down, please. 6. I … believe. I am already out of money. – You … learn not to spend so much. – But I … do it, there are things that I … buy. 7. Don’t think that to study English you … only attend classes. You … learn grammar rules and new words by heart at home, do exercises, read and translate. If you want to improve your English, you … work not only in class, but also at home. 8. … I take this book? – Certainly, but you … not give it to anybody else. 9. Mother, … I go to the country tomorrow? – No, you … not. The doctor says you … stay at home for two days more. 10. There is something wrong with your TV set. You … call a repairman yesterday. – Oh, we … not do it! My brother … fix it himself!

**Степени сравнения прилагательных и наречий**

**(Degrees of Comparison)**

В английском языке, так же, как и в русском, прилагательные и наречия имеют три степени сравнения: **положительную, сравнительную и превосходную.**

В английском языке существуют два способа построения степеней сравнения.

**1. Для односложных (состоящих из одного слога) слов:** при помощи суффиксов **-er** и **-est.**

Положительная Сравнительная Превосходная

small smaller (the) smallest

маленький меньший самый маленький

**Примечание:** с превосходной степенью используется определенный артикль;

**Правописание суффиксов степеней сравнения:**

а) конечная согласная с предшествующей краткой гласной удваивается: big – bigger – (the) biggest;

б) если перед конечной -**у** стоит согласная буква, то **-у** переходит в -**i**: easy – easier – (the) easiest;

в) при прибавлении **-er** и **-est** конечная **-е** опускается: large – larger – (the) largest.

**2. Для многосложных (состоящих из двух или более слогов) слов:** используются слова **more** и **most.**

Положительная Сравнительная Превосходная

beautiful more beautiful (the) most beautiful;

красивый красивее самый красивый

Для передачи значений менее и меньше всего / наименее используются соответственно слова **less** и **least**:

beautiful less beautiful (the) least beautiful

красивый менее красивый наименее красивый

**Примечание:** формы степеней сравнения некоторых прилагательных и наречий в английском языке образуются не по правилу.

**Исключения**

|  |  |  |
| --- | --- | --- |
| Положительная | Сравнительная | Превосходная |
| good/well | better | (the) best |
| хороший/хорошо | лучше | самый лучший/ |
|  |  | лучше всего |
|  |  |  |
| bad/badly | worse | (the) worst |
| плохой | хуже | самый плохой/ |
|  |  | хуже всего |
|  |  |  |
| many/much | more | (the) most |
| много | больше / более | больше всего/  наиболее |
|  |  |  |
| little | less | (the) least |
| мало | менее / меньше | меньше всего/  наименее |
| far | farther / further | (the) farthest/  (the) furthest |
| далекий/ далеко | более далекий / дальше | самый далекий/  дальше всего |

**Task 3. Put adjectives in brackets in the appropriate degree of comparison.**

1. Jill’s a far (intelligent) person than my brother.

2. Kate was the (practical) of the family.

3. Greg felt (bad) yesterday than the day before.

4. This wine is the (good) I’ve ever tasted.

5. Jack was the (tall) of the two.

6. Jack is the (clever) of the three brothers.

7. If you need any (far) information, please contact our head office.

8. The sinking of Titanic is one of (famous) shipwreck stories of all time.

9. Please, send the books back without (far) delay.

10. The deposits of oil in Russia are by far the (rich) in the world.

11. Could you come a bit (early) tomorrow?

12. I like this song (well) than the previous one.

13. Which of these two performances did you enjoy (much)?

14. The fire was put out (quickly) than we expected.

**Task 4. Fill in the gaps with more or less.**

1. People are … intelligent than monkeys.

2. Summer holidays are … splendid than winter holidays.

3. Books are … interesting than films.

4. Writing in English is … difficult than speaking.

5. Reading is … useful than watching TV.

6. Food is … expensive than clothes.

7. Spring is … beautiful than winter.

8. Maths is … difficult than English.

9. Sindirella is … attractive than her sisters.

10. Old tales are … wonderful than modern ones.

**Section 2. Vocabulary and word study.**

**Active Vocabulary. Text A**

|  |  |
| --- | --- |
| 1) variety | вид, сорт |
| 2) to replace | заменять |
| 3) susceptible | восприимчивый,чувствительный |
| 4) resistant | устойчивый, сопротивляющийся |
| 5) to resort | прибегать, обращаться |
| 6) arduous | трудный, недоступный |
| 7) to perform | исполнять, осуществлять |
| 8) undertaking | предприятие, дело |
| 9) research | искать, исследовать |
| 10) stock | порода, вид, штамм |
| 11) heredity | наследственность |
| 12) cereal rust | ржавчина злака |
| 13) acreage | площадь земли в акрах |
| 14) sound | здоровый, крепкий |
| 15) crack | трещина |
| 16) inside | внутренняя сторона |
| 17) to steep | погружать |
| 18) internally | внутри |
| 19) to rely on | полагаться |
| 20) to reduce | понижать, ослаблять |
| 21) mycelium | мицелий, грибница |
| 22) focal point | центральное, главное место |
| 23) rape | рапс, капуста полевая |
| 24) bit | кусочек, частица |
| 25) shrunken | сморщенный, поврежденный |
| 26) fracture | трещина, излом, разрыв |
| 27) to thresh | молотить |
| 28) to blaster | покрываться пузырями |
| 29) to offset | возмещать, компенсировать, |
| 30) to treat | обрабатывать, лечить |

**Task 1. Find the meanings of the following words in the dictionary.**

Available, expensive, dusting, disease-resistant, research, to be able, quality, quantity, to occur, value, race, to achieve, touch, to treat, advisable, to require, ergot, sclerotia, debris, severe, flax, choice, seedling.

**Task 2. Determine parts of speech correlated to the following words with the same root paying attention to their suffixes.**

To grow, grower, growing; to spray, sprayer, spraying; to dust, duster, dusting; to produce, producer, producing; to undertake, undertaker, undertaking; to organize, organizer, organizing; to breed, breeder, breeding; to injure, injuring; to infect, infection; to clean, cleaner, cleaning; to adjust, adjusting.

**Task 3. Translate the following word combinations into Russian.**

At the same time; in all other respects; expensive practices; resistant breeding stocks; the laws of heredity; seed-borne disease; the harmful effect; in favour of; fracturing of the seed.

**Task 4. Translate the following sentences paying attention to modal verbs and their equivalents.**

1. Crop production and protection systems can help the farmers to obtain an economically profitable yield. 2. Plant diseases must be detected before they invade new areas. 3. The farmer had to assess the extent of the damage and the yield or revenue loss. 4. The agronomist will be able to make a decision to apply fertilizers and pesticides in time. 5. We are to consider the various options available for controlling pests. 6. They could stop introduction of antagonistic organisms, such as parasites and pests, and active interventions through the application of chemically- or biologically-based pesticides. 7. Plant pathologists have to rely on symptoms for the identification of a disease problem. 8. A great variation in susceptibility to a specific disease may occur within different cultivars of a plant species. 9. If you do not know what to expect of the plant you cannot recognize when something is wrong. 10. When the normal appearance of the specific plant is determined, several comparisons should be made between the problem plants and healthy plants.

**Task 5. Fill in the gaps in the sentences with adjectives in appropriate degrees of comparison.**

1. Viruses are the … particles.

a) small, b) smaller, c) smallest

2. Plant disease control measures enrich our lives … than most people realize.

a) many, b) more, c) most

3. Spores are carried over … distances by winds.

a) great, b)greater, c) greatest

4. The … germ tube grows and braches into a network of tubular structures.

a) strong, b) stronger, c) strongest

5. Treatments for internally borne seed infections are … than those for surface-borne organisms.

a) hard, b) harder, c) hardest.

6. The spread of diseases from old dead plants to new growth is … easily noticed.

a) little, b) less, c) least

**Section 3. Reading and speaking**

**Task 1. Read and translate Text A into Russian. Tell about the main task of agricultural research organizations.**

**TEXT А**

**USE OF RESISTANT VARIETIES**

The ideal way to control a crop disease is to replace a susceptible variety with one that is resistant to the diseases and at the same time good in all other respects. If such a variety is available, a grower does not have to resort to such expensive practices as dusting or spraying with fungicides.

The long and difficult task of producing satisfactory disease - resistant varieties is performed largely by institutions supported by public funds.

One of the main undertakings of agricultural research organizations is to produce such varieties. The scientists in these institutions search the world for resistant breeding stocks. With their knowledge of the laws of heredity, they are able to combine resistance with the good qualities of the varieties grown in their own area. An example of control by the use of resistant varieties occurred after the severe cereal rust epidemic of 1935. Within five years most of the acreage of wheat and oats in Manitoba and eastern Saskatchewan was sown to resistant varieties. Resistance is often of only temporary value because new races of disease - producing organisms keep appearing. Nevertheless very valuable and outstanding results have been achieved in the development of varieties resistant to many diseases of cereals and other field crops. To find out which varieties are currently most useful, get in touch with your local agricultural representative.

Careful Selection of Seed.

When you have chosen a variety, consider next the condition of the seed to be sown. Two things are important: not only should the seed be free from actual seed - borne disease organisms, it should also be as sound as possible, that is, free from cracks and breaks. This is an ideal that can seldom be achieved in commercial seed. Therefore, it is usually advisable to treat seed with a fungicide.

Freedom from Disease.

Seed-borne disease organisms may occur on the surface of seed or inside seed. Organisms on the surface of seed can usually be killed by ordinary chemical treatments but those inside seed require a different treatment. For example, it is possible, by steeping infected seed in hot water, to destroy internally borne organisms without injuring the seed. Treatments for internally borne seed infections are harder to apply than those for surface-borne organisms. For this reason, it is sometimes preferable to buy registered or certified seed rather that to rely on seed treatment.

Diseased seed is often reduced in size and weight and carries spores, mycelium or other structures from which disease - producing organisms grow. Infected seedlings serve as a focal point from which an epidemic of the disease can start.

Other sources of disease infection such as ergot, sclerotia or those of the fungus causing wilt of sunflowers and rape, or bits of rusted flax straw may also be mixed with seed. It is good practice, therefore, to remove shrunken seed and other debris by careful cleaning.

Soundness.

Soundness of seed is very important in flax, but it is also important in other crops.

Cracks and other fractures are most severe in seed that has been threshed under very dry conditions. These fractures serve as points of entry for soil-borne microorganisms after seed is sown. The blistering of seed by frost may have the same effect.

The harmful effect of fractures can be largely offset by appropriate seed treatment before sowing.

**Task 2. Fill in the gaps with the words given below. Translate the sentences.**

1. Plant variety that is … to the disease.

2. Resistance is often of only … value.

3. The seed should also be as … as possible.

4. It is usually to treat seed with a fungicide.

5. The blistering of seed by frost may have the … effect.

6. Infected seedlings serve as a … point from which epidemic of the disease can start.

7. A grower does not have to resort to such … practices as dusting or spraying with fungicides.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) sound, b) focal, c) advisable, d) resistant,

e) temporary, f) same, g) expensive.

**Task 3. Revise modal verbs (see the chart in Section 1) and fulfill the following tasks:**

**а) Revise the meaning of modal verbs and their equivalents. Make up your own sentences in Present, Past and Future Simple.**

can (could) = be able to;

must = have to; be to;

may (might) = be allowed to.

**b) Find in the text the sentences with modal verbs and their equivalents and translate them.**

**Task 4. Answer the following questions.**

1. What is the ideal way to control a crop disease?

2. What do the scientists of agricultural research institution search for?

3. What things are important in selection of seed?

4. Why are infected seeds steeped in hot water?

5. Where can an epidemic of the disease start?

6. What effect may the blistering of seed by frost have?

7. Why are the scientists able to combine resistance with the good qualities of the varieties growth?

8. Why is it advisable to treat seed with a fungicide?

9. Why is it good practice to remove shrunken seed and other debris?

**Task 5. Read and translate Text B.**

**TEXT В**

**CHEMICAL SEED TREATMENT**

Seed treatment with chemicals is desirable for much of the seed sown in the Prairie Provinces. All types of crop plants are subject to diseases that may be controlled by seed treatments. This method of control is twofold in action. It acts first against the disease organisms on the surface of seed and, second, against soil microorganisms before they enter damaged or germinating seed.

Treat all wheat seed with an appropriate fungicide before sowing, unless it is sound, healthy and free from surface-borne smut. Some seed-testing laboratories maintained by grain elevator companies will test seed samples, free of charge, for the presence of surface-borne of smut and seedling blights. A few laboratories will make similar tests for a fee. If an examining service reports that a sample possesses high germination (90 per cent) and freedom from smut spores, the seed may be sown without treatment. However, freedom smut alone does not imply that seed treatment may not be of value.

Treat all seed of oats, barley, flax, rye and peas with a suitable fungicide. Ensure that the seed is properly cleaned before treatment, that the fungicide is carefully applied and completely covers the seed, and that the directions supplied by the manufacturer are followed exactly.

Most seed treatment chemicals are poisonous and you must take special precautions when using them. Wear a respirator to avoid inhaling dust, and wear plastic gloves to prevent the chemicals from contacting your skin. Treat seed outdoors, if possible, or in well-ventilated quarters. It is against the law to sell treated grain other than for seed. Surplus treated seed should be sown for green feed or may be stored and sown the following year. Do not feed treated grain to livestock.

A large number of chemicals are now available for seed treatment. Some of these are fungicides, some are insecticides, and some are a combination of both. Your choice will depend on the disease or insect you wish to control, or on whether you prefer to apply the chemical in the form of liquid, slurry, dust or a formulation designed for drill box application.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) twofold | двойной, удвоенный |
| 2) appropriate | подходящий |
| 3) smut | головня |
| 4) sample | образец, проба |
| 5) blight | гниль |
| 6) fee | плата |
| 7) to imply | значить, заключать в себе |
| 8) direction | указание |
| 9) inhaling | вдыхание |
| 10) slurry | жидкая глина |
| 11) surplus | избыток |
| 12) ball smut | твёрдая головня пшеницы |
| 13) drill box | семенной ящик сеялки |

**Task 6. Choose the statements corresponding to the content of Text B**

1. Diseased seed is often reduced in size and weight.

2. All types of crop plants may be controlled by seed treatment.

3. Organisms on the surface of seed can usually be killed by ordinary chemical treatments.

4. Some seed-testing laboratories will test seed samples free of charge.

5. A large number of chemicals, such as fungicides or insecticides arc available for seed treatment.

6. Some types of chlorosis are caused by an overabundance of one chemical.

7. All plants require minerals in definite quantities.

**Task 7. Read the following chains of nouns and translate them into Russian.**

Seed treatment; disease organisms; soil microorganisms, seedling blights, smut spore, plant sanitation, commercial seed, agricultural research organization, field crops, orchard crops, alfalfa stubble.

**Task 8. Find in the Text B the English equivalents of the following word combinations.**

Xимическая обработка желательна; попадают в поврежденные или прорастающие семена; бесплатно; из-за наличия появившихся на поверхности спор; изучение регистрационных записей; указания, данные изготовителем; в хорошо проветриваемом месте; не разрешается; не скармливать обработанное зерно животным; большое количество; предпочитаете ли вы использовать химикат в виде жидкости; должно высеваться на зеленый корм.

**Task 9. Discuss the following questions in English.**

1. Какие действия может предусматривать обработка семян? Назовите их.

2. При каком условии семена можно высевать без химической обработки?

3. Каких правил следует придерживаться при обработке семян и почему?

**Task 10. Read Text C and give the title to it.**

**TEXT С**

Plant sanitation or plant hygiene is a well - recognized means of controlling diseases of orchard crops, but it is not commonly practiced with field crops because most of these crops are renewed each year and the spread of diseases from old dead plant to new growth is less easily noticed. The practice of burning alfalfa stubble in seed fields before growth starts in the spring is a good illustration of control through sanitation. Most of the fungi causing leaf and stem diseases of this crop overwinter on dead foliage, and removing such material reduces early spring infection of the new growth. Even in cereal crops special condition may result in such a rank growth that other methods of disposal become very difficult and burning may be necessary. Destruction of plant debris by burning or by covering it by plowing under tends to limit the build-up of disease, but these measures are not always advisable from the point of view of soil conservation. The straw cutter will permit disposal of the straw of most cereal crops. Perhaps the most effective answer to the danger from a trash cover is found in crop rotation. It provides for the destruction by natural means of the sources of infection in the remains of an old crop. When there is more than a year between plantings of the same kind of crop, there is time for the diseased stubble to decompose and the disease organisms to be destroyed by other microorganisms or by antibiotics produced by them. If crop rotation is not practiced with a crop such as barley, the bad effects are quickly evident. Leaf-spotting diseases overwinter readily on old stubble, especially if it is not plowed under. If barley is sown a second year the leaf - spotting may cause serious losses in yield. Fortunately, most farmers are full aware of the advantages of crop rotation. Ask your local agricultural representative about the best rotation for your particular district.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) foliage | листва |
| 2) disposal | избавление, удаление |
| 3) straw cutter | соломорезка |
| 4) trash cover | слой мусора |
| 5) rank growth | буйный рост |

**Task 11. Choose correct answers to the following questions.**

1. Why is plant sanitation not always practiced with field crop?

a) because the seed treatment may not be of value;

b) because these crops are renewed each year;

c) because it is not effective.

2. What is a good illustration of control through sanitation?

a) a practice of burning alfalfa stubble ...;

b) a practice of removing such materials...;

c) a practice of plowing plant debris ....

3. What can happen if there is more than a year between plantings of the same kind of crop?

a) the diseased stubble can be decomposed;

b) the diseased stubble can be distributed through all the fields;

c) the diseased stubble can be not destroyed.

4. When may burning be necessary?

a) if removing of dead foliage is difficult;

b) if the spread of diseases from old dead plant is notice;

с) if infection remains on old crop.

5. Why must crop rotation be practiced?

a) because leaf-spotting diseases overwinter on old stubble;

b) because some fungus become able to grow on dead matter;

c) because spores are carried great distances

**Task 12. Tell about the advantages of crop rotation.**

**UNIT 3. DISEASES OF WHEAT**

**Section 1. Participle (Причастие)**

**Причастие** в английском языке – это неличная форма глагола, обладающая в равной степени признаками глагола, прилагательного и наречия. Всего выделяются два типа: причастие первое (или настоящего времени) и причастие второе (прошедшего времени).

**Participle I** (причастие первое) – это причастие в английском языке, называемое также Present Participle. Хотя Present Participle грамматически относится к настоящему времени, оно может выражать различные отношения в зависимости от контекста и времени, в котором стоит смысловой глагол. Причастие первое подразделяется на два типа: простое (Simple) и совершенное (Perfect). В первом случае имеется сходство с русским деепричастием несовершенного вида: doing – делающий, resting – отдыхающий. Во втором случае форму глагола можно назвать аналогом русского деепричастия совершенного вида: having written – написав, having finished – закончив.

**Сложные формы Participle I**

|  |  |  |
| --- | --- | --- |
| **Формы**  **причастия I** | **Active** | **Passive** |
| **Simple** | inviting  *приглашающий*  *приглашая* | being invited  *приглашаемый*  *будучи приглашенным* |
| **Perfect** | having invited  *пригласив* | having been invited  *после того, как приласили когда пригласили* |

Present Participle Simple образуется путём добавления к инфинитиву глагола окончания **-ing**, например, go – going; write – writing; sit – sitting (в некоторых случаях последняя гласная удваивается); lie – lying («i» меняется на «y», если «y» стоит в слове после согласной буквы). Present Participle Perfect образуется следующим образом: инфинитив глагола have с окончанием -ing + 3-я форма глагола. Например: having written, having gone, having decided и т. п.

**Употребление Participle I**

Present Participle Simple используется во многих случаях, обладая следующими свойствами:

1. Выражает действие, одновременное с основным.

Walking along the beach, I see birds. Гуляя по пляжу, я вижу птиц.

2. Выражает действие, произошедшее сразу перед другим.

Finishing the work, they left quickly. Завершив работу, они быстро ушли.

3. Характеризует подлежащее.

The man standing there is my father. Мужчина, стоящий там, мой отец.

Несколько реже можно встретить употребление Present Participle Perfect. Оно выражает действие, предшествующее основному. Having decided what to do, she dialed the number. Решив, что делать, она набрала номер.

**Participle II** (причастие второе). Эта разновидность английского причастия носит также название Past Participle. Соответствует страдательному причастию в русском языке, которое переводится аналогичным образом: eaten – съеденный, destroyed – разрушенный и т. д. Второе причастие прошедшего времени в английском языке имеет лишь одну форму – Past Participle Simple.

Оно образуется от глагола двумя способами. Правильный глагол: окончание -ed присоединяется к основе (start – started, answer – answered, play – played). Неправильный глагол: третья форма в таблице неправильных глаголов (make – made, write – written, understand – understood).

**Употребление Participle II**

Причастие 1 и 2 в английском языке различаются не только по форме, но и по содержанию, то есть по смысловой наполненности и использованию в предложении. Второе причастие так же неразрывно связано с существительным, как и первое, но есть отличие: это существительное не само является объектом действия, а испытывает его на себе. Например: a written letter – написанное письмо, a cooked dinner – приготовленный ужин, a closed door – закрытая дверь. Такое причастие в английском языке может выражать свойство предмета либо ранее совершённое действие. Пример для первого случая: He was a man respected and loved by everyone. (Он был человеком всеми уважаемым и любимым). Второй случай употребления можно проиллюстрировать так: I saw a broken window. (Я увидел разбитое окно). Все формы, которые имеет причастие в английском языке, могут употребляться в действительном или страдательном залоге. Причастие 1 в действительном залоге (Present Participle Active) употребляется, когда связанное с ним существительное или местоимение обозначает субъект действия (то есть само выполняет его): Singing she entered the room. (Напевая, она вошла в комнату). Причастие 1 в страдательном залоге (Present Participle Passive) употребляется, когда связанное с ним существительное или местоимение выражает объект действия (то есть испытывает действие на себе): Being tired he refused to join us. (Будучи уставшим, он отказался к нам присоединиться). Причастие 2 в силу своей специфики существует только в страдательном залоге.

**Функции причастия (Participle I и Participle II)** в английском языке определяются типом (1 или 2) и залогом (действительный или страдательный). В зависимости от этих факторов, причастие может играть роль определения, обстоятельства или части сказуемого.

**Синтаксические функции причастия**

**и их перевод на русский язык:**

**1. Часть сказуемого**

Participle I входит в состав сказуемого во всех временах групп Continuous и Perfect-Continuous.

Participle II входит в состав сказуемого во всех временах группы Perfect и в Passive Voice.

The man **is sitting** in the hall. Человек **сидит** в холле.

He **has opened** the window. Он **открыл** окно.

**2. Определение** (какой?)

При переводе на русский язык Participle I в функции определения соответствует действительному причастию в русском языке (*приглашающий, пишущий)*, а Participle II – страдательному причастию *(приглашенный, написанный)*.

The man **sitting** in the hall is my farther. Человек, **сидящий** в холле, мой отец.

I see him through the **opened** window. Я вижу его в **открытое** окно.

**3. Обстоятельство**

Participle I в функции обстоятельства отвечает на вопрос *что делая?* ипереводится деепричастием.

Participle II переводится причастным оборотом или придаточным предложением.

Participle I может вводиться союзами when, while, а Participle II союзами when, if, unless. В этом случае они переводятся придаточными предложениями.

Sitting in the hall he reads newspapers. Сидя в холле, он читает газеты.

When published this article became a sensation. Когда эту статью опубликовали, она стала сенсацией.

**Task 1. Translate the sentences into Russian paying attention to the forms and functions of Participle I and Participle II.**

1. Some questions put to the lecturer yesterday were very important. 2. Having taken a dictionary, he began to translate the text. 3. Seeing mistakes in a student’s test a teacher always corrects them. 4. While speaking to our monitor, I have forgotten to ask him about the homework. 5. The students being registered in the list will take part in the conference. 6. When registered they should come into the conference hall. 7. Having been asked a question, the reporter had to wait for quiet. 8. He was writing formulas on the blackboard. 9. The reporter publishing these articles is a famous scientist. 10. The test was written correctly.

**Task 2. Use the verbs in the appropriate forms of Participle I or Participle II.**

1. (to do) his homework, he was thinking hard. 2. (to do) his homework, he went to the gym. 3. Here is the letter (to receive) by me yesterday. 4. The girl (to speak) by the phone is a first-year student. 5. Take an umbrella, it (to rain) out of doors. 6. (to be) very ill, he could not go to the University. 7. I (to wait) for my roommate for an hour, because I left my key in the campus. 8. Be attentive, this word (to pronounce) in a different way. 9. (to try) to understand, he had to listen attentively. 10. The (to lose) book has been found at last

**Section 2. Vocabulary and word study**

**Active Vocabulary. Text A**

|  |  |  |
| --- | --- | --- |
| 1) alike | | похожий, подобный |
| 2) couch grass | | пырей, ползучий |
| 3) to attack | | поражать |
| 4) wild | | дикий |
| 5) meadow fescue | | луговая овсяница |
| 6) strain | | порода, наследственность |
| 7) race | | род, порода |
| 8) variety | | разновидность, вид |
| 9) ability | | способность |
| 10) specificity | | особенность, вид |
| 11) durum wheat | | твердая пшеница |
| 12) bread wheat | | хлебная пшеница |
| 13) heavily | | тяжело, сильно |
| 14) extent | | протяжение, степень |
| 15) brick-red | | кирпично-красный |
| 16) eruption | | извержение, высыпание |
| 17) pustule | | пустула, прыщ |
| 18) particularly | | определённо, детально |
| 19) to contain | | содержать, вмещать |
| 20) ripen | | зреть, созревать |
| 21) darken | | темнеть, становиться темным |
| 22) stage | | стадия |
| 23) thick-walled | | толстостенный |
| 24) severe | | серьёзный, тяжёлый, высокий, |
| 25) distinct | | отчётливый, явный |
| 26) merely | | просто, только |
| 27) to survive | | переносить, выживать |
| 28) to germinate | | прорастать, пускать ростки |
| 29) species | | класс, род, тип, разновидность |
| 30) barberry | | барбарис |
| 31) to give rise | | дать рост, породить |
| 32) to spread | | распространяться |
| 33) to interbreed | | скрещивать(ся) |
| 34) meadow rue | | полевая рута (душистая) |
| 35) ergot | спорынья | |

**Task 1. Read the words and revise their meanings.**

Distinctive, cereal, several, look, wild, unit, to distinguish, acreage, to take place, appearance, to be responsible, sporidia, instead, chance, to escape.

**Task 2. Translate the sentences paying attention to a construction there+be.**

1. There are many different cereals in the world.

2. There is a strong tendency for the races that attack a given wheat variety.

3. There are two stages of stem rust. They are: red or summer stage, black or winter stage.

4. There are various species of barberry.

5. There are different ways to control rust and the best one is to grow stem-rust resistant varieties.

6. There is another way of controlling rust; to destroy barberry bushes.

7. There are several kinds of stem rust.

**Task 3. Translate the following word combinations into Russian.**

To look very much alike; to be made up of; distinct strain; increased to such an extent; because of brick-red eruptions on leaves; wind-borne spores; wheat sown early stands better chance.

**Task 4. Fill in the gaps with appropriate verb forms, paying attention to Participle I, Participle II.**

1. These strains can … from one another

a) distinguishing

b) be distinguished

c) distinguish

2. The durum wheat … even more rust susceptible than the bread wheat.

a) become

b) becoming

c) became

3. The rust infects wheat, … rise the red stage.

a) gave

b) given

c) giving

4. As old varieties become susceptible new ones are … .

a) have introduced

b) introduced

c) introduces

5. You can also control rust by … barberry bushes.

a) destroying

b) destroyed

c) destroy

6. Barberry has never … extensively in our regions.

a) grown

b) been grown

c) grow

7. The change in appearance … by formation of thick - walled spores.

a) must cause

b) causes

c) is caused

**Section 3. Reading and speaking**

**Task 1. Read and translate Text A.**

**TEXT А**

**STEM RUST**

Stem rust is the most destructive disease of cereals in the Prairie Provinces. It attacks wheat, barley, oats, rye and certain grasses. There are several kinds of stem rust which differ in that they attack different crops, although they all look very much alike. Stem rust of wheat attacks wheat, barley and wild barley but not oats or rye. Stem rust of rye attacks rye, barley, wild barley and couch grass but not wheat or oats. The rust of oats attacks not only oats but also wild oats and meadow fescue, though not wheat, barley or rye. The tendency of stem rust to break up into units that differ parasitically is carried to extraordinary lengths. Not only is wheat stem rust different from oat stem rust; wheat stem rust itself is made up of a great many parasitically distinct strains or races. These strains can be distinguished from one another by their ability or inability to attack different wheat varieties. The characteristic specificity of rust is economically important because there is a strong tendency for the races that attack a given wheat variety to increase from year to year where that variety is widely grown. But the race attacked them heavily, and from 1950 onwards increased to such an extent that the durum wheat became even more rust susceptible that the bread wheat. The change did not take place in the wheat but rather in the rusts that attacked them.

Appearance.

During summer, stem rust is easy to recognize on wheat plants because of brick-red eruptions, or pustules, on leaves and particularly on stem. This is the red or summer stage of the rust. Each pustule contains hundreds of thousands of spores, each of which may infect another plant and produce a new rust pustule in a week or 10 days. As wheat plants ripen, the rust pustules darken until they are almost black. This change in appearance is caused by the formation of thick-walled, dark-brown spores that can resist the severest winter. This is the black, or winter, stage of the rust, which is responsible for the name «black stem rust». The two stages are, however, not two distinct kinds of rust but merely two phases of the same rust.

Disease Cycle.

The black spores survive the winter and germinate in the spring, each spore producing four smaller spores known as sporidia. These sporidia cannot infect wheat or any other plant except for various species of barberry, the most important of which is the common barberry. The rust thus produced on the barberry cannot reinfect barberry; instead, it infects wheat, giving rise to the red, summer stage of the rust.

The barberry’s role in the rust life cycle is important for two reasons. First, it spreads the rust to grain and grasses in early summer. Second, while the rust is on the barberry different races can interbreed to produce new races. However, barberry is not essential for the appearance of rust each year in Canada. In North America, the red, or summer, stage of the rust is able to survive the winter and then spread by wind-borne spores to other parts of the continent. Our stem rust epidemics come mostly from this source.

Wheat sown early stands a better chance of escaping rust infection than late-sown grain.

**Task 2. Using the information from Text A, tell about the role of barberry in pathological process and spreading of rust.**

**Task 3. Fill in the gaps with the words given from the list.**

Rust pustules; reinfect; menace; brick-red eruptions; germinate; survive; attacks; different races.

1. Stem rust is easy to recognize on wheat plants because of … on leaves and stems.

2. As wheat plants ripen, the … darken until they are almost black.

3. The black spores … the winter and … in the spring.

4. The rust thus produced on the barberry cannot … barberry.

5. In the countries where stem rust is a … , plant geneticists are constantly working to produce new rust resistant variety.

6. Stem rust of wheat … wheat, barley and wild barley but not oats or rye.

7. While the rust is on barberry … can interbreed to produce new races.

**Task 4. Find in the text English equivalents of the following words and word combinations.**

Выглядеть очень похоже; полевая овсяница; распространяться на большое расстояние (пространство); определенный сорт пшеницы; до такого размера; но вернее; суровая зима; но только; за исключением.

**Task 5. Answer the questions.**

1. What disease is the most destructive one?

2. What plants are infected by this disease?

3. What can the strains of stem rust be distinguished by?

4. Why is the characteristic specifity of rust economically important?

5. Where did the change take place?

6. Why is the stem rust easy to recognize?

7. What can you say about pustule?

8. What is the change in appearance caused by?

**Task 6. Read and translate Text B.**

**TEXT В**

**LEAF RUST**

Leaf rust, also caused by a fungus, is probably the second most destructive disease of wheat in Western Canada. Like stem rust, it is made up of many parasitically distinct strains known as physiologic races. Some wheat varieties, such as Thatcher, are susceptible to nearly all the North American races of this rust. Other varieties, such as Selkirk and Lee, are resistant to some races but susceptible to others. A new variety may be classed as resistant at first, but as it becomes more widely grown the leaf rust races that can attack it tend to become more prevalent year by year until the variety has to be regarded as susceptible.

Appearance.

Leaf rust is largely confined to the leaves of wheat plants but occurs also, to a lesser extent, on the stems just below each leaf. Leaf rust pustules are nearly round and are much smaller than those of stem rust. They are yellowish red, and may be so closely spaced on heavily rusted plants that they give the leaves an orange red appearance. As the plants ripen the rust pustules darken until they become black. As in stem rust, the dark color is caused by the formation of thick-walled, dark-brown winter spores. These spores can survive winter whereas the red, or summer, stage survives the winter only in the southern States and, occasionally, in areas in which winter wheat is grown.

Disease Cycle.

The black spores which live through the winter germinate in the spring, each spore producing four smaller spores called sporidia. These sporidia cannot infect wheat. They can, however, infect certain other plants, particularly certain kinds of meadow rue that grow in Europe and Asia. The rust on meadow rue can, in turn, infect wheat to produce the red, summer stage. However, the kinds of meadow rue that are native to North America are so highly resistant that they do not contribute to the spread of the rust.

In North America the persistence of leaf rust from year to year is due to the overwintering of the red, summer stage in the southern States and Mexico.

Control.

The best control measure is the growing of resistant varieties.

It is not easy to breed varieties resistant to all stem rust races and all leaf rust races.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) to tend | стремиться |
| 2) prevalent | преобладающий |
| 3) to be confined to | находиться, быть прикованным |
| 4) yellowish | желтоватый |
| 5) occasionally | случайно, изредка |
| 6) to contribute | способствовать, содействовать |
| 7) persistence | выносливость, настойчивость |

**Task 7. Choose the statements corresponding to the content of Text B.**

1. A new variety may be classed as … at first.

a) tolerant

b) resistant

c) susceptible

2. Leaf rust pustules are … .

a) bluish red

b) whitish red

c) yellowish red

3. The … cannot infect wheat.

a) spore

b) sporidia

c) pustules

4. Like stem rust, it is made of many distinct … .

a) kinds

b) races

c) strains

5. The black spores … in the spring.

a) germinate

b) produce

c) distribute

**Task 8. Give English equivalents to the following words and word combinations.**

Озимая пшеница; полевая рута; выводить новые сорта; физиологический вид; год за годом; в меньшей степени; как раз ниже листа; может быть расположен так близко; там где; определённый вид (тип); в свою очередь; высоко устойчивый.

**Task 9. Speak on the topics.**

1. Leaf rust and its impact on different wheat varieties.

2. How and why is it possible to notice leaf rust on the plant?

3. Spores development of leaf rust and their impact on plants.

**Task 10. Read and translate Text C.**

**TEXT С**

**BUNT**

Bunt of wheat, or smutty wheat, is caused by two closely related smut fungi. Because both forms of the disease look alike, develop in the same way and need the same type of control, no distinction between them will be made here. A third kind of bunt, called dwarf bunt, is now known to occur in British Columbia and Ontario on winter wheat. Bunt occurs wherever wheat is grown, and before effective control methods were discovered it was a very serious disease in some wheat producing countries. With the use of modern seed disinfectants, bunt of wheat has been practically eliminated from the Prairie Provinces. It remains only on farms where control measures are neglected, and in the winter-wheat area where soil-borne smut spores sometimes reproduce the disease. Although losses caused by bunt of wheat have been very small in recent years, they still amount to many thousands of dollars annually. A high proportion of these losses arise because smutty wheat has to be sold at a discount. The fungi causing bunt of wheat are each composed of several races which are indistinguishable in their appearance but differing in their ability to attack different varieties of wheat. Some also have a characteristic bunt odor whereas others do not.

Appearance.

Smutted heads of wheat are usually bluish green in appearance and they remain green longer than healthy heads. Awns may fail to develop, or may fall off as smutted heads ripen. Sometimes all the heads of a plant are affected and at other times only one or two. The heads themselves may be partially smutted, both normal grains and bunt balls occurring in the same head. Bunt balls resemble wheat kernels but they are bluish green at first, then change to various shades of brown as they reach maturity.

Disease Cycle.

Bunt balls, each of which may contain up to nine million spores, are broken by threshing and the spores thus set free adhere to the surface of sound grain. Smut spores may also be carried by air currents to nearby fields that would otherwise be free of smut.

Control.

Modern seed disinfectants, if properly applied to wheat seed, give good control of bunt.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1. bunt | твердая головня |
| 2. smutty; smut | грязный; головня |
| 3. dwarf bunt | карликовая головня |
| 4. odor | запах, душок |
| 5. head | колос (колосок) |
| 6. ball | шар |
| 7. kernel | зерно |
| 8. maturity | зрелость |
| 9. adhere | прилипать |
| 10. awn | ость |

**Task 11. Choose the right answers to the questions.**

1. Are there any difference between bunt and smut?

a) Yes, there are

b) No, there are not

c) May be there are some differences

2. Where do the spores adhere after threshing bunt balls?

a) The spores adhere nearby fields after threshing bunt balls

b) After threshing bunt balls the spore adhere the surface of sound grain

c) The spores adhere different grasses after threshing bunt balls

3. Is a third kind of bunt called dwarf bunt?

a) Yes, it is

b) No, it is not

c) It is called smutty bunt

4. What losses are caused by bunt of wheat?

a) They are very small

b) They are great

c) They are not very great

5. What color are smutted heads?

a) They are bluish green

b) They are yellowish

c) They are green

**Task 12. Translate the following word combinations.**

Two closely related smut fungi; the same way; wheat producing countries; soil-borne smut spores; high proportion; awns may fail to develop; tiny germ tubes penetrate seedling; once inside; the host plant; the fungus threads branch profusely; modem seed disinfectants.

**Task 13. Tell about appearance of the infected plant.**

**UNIT 4. DISEASES OF BARLEY**

**Section 1. Grammar**

**Инфинитив (Infinitive)**

**Инфинитив**, или неопределенная форма глагола – это [форма глагола](http://englishgu.ru/finite-and-non-finite-forms-verb/), которая не имеет лица и числа. Инфинитив лишь называет действие, обозначаемое глаголом. Как и в русском языке, в английском неопределенная форма глагола отвечает на вопросы «что делать?» и «что сделать?»

Признаком инфинитива является частица **to** перед глаголом, например: **to work** работать**, to read** читать.

В некоторых случаях инфинитив употребляется без частицы to:

1) После модальных глаголов must, can (could), may (might) и need:

He must help me. Он должен помочь мне.

You may come in. Ты можешь войти.

2) После глаголов to make – заставлять, to let – разрешать, а иногда также после to help – помогать:

Help me choose a gift for my sister. Помоги мне выбрать подарок для сестры.

Mother makes me clean my room. Мама заставляет меня убирать мою комнату.

3) В обороте [«объектный падеж с инфинитивом» (complex object)](http://englishgu.ru/complex-object-slozhnoe-dopolnenie/) после глаголов to watch – наблюдать, to see – видеть, to hear – слышать, to feel – чувствовать и некоторых других:

I saw her write the letter. Я видел, как она пишет письмо.

**Формы инфинитива**

|  |  |  |
| --- | --- | --- |
| **Группа времен** | **Active Voice** | **Passive Voice** |
| **Simple** (Indefinite)  выражает действие, происходящее одновременно с действием сказуемого | **to do**  делать (вообще) | **to be done**  быть сделанным (вообще) |
| **Continuous** (Progressive) выражает длительное действие, продолжающееся одновременно с действием сказуемого | **to be doing**  делать  (в определенный момент) | – |
| **Perfect** выражает действие, предшествующее действию сказуемого | **to have done**  (уже) сделать  (до какого-либо определенного момента) | **to have been done**  (уже) быть сделанным (до какого-либо определенного момента) |

**Примеры:**

I want **to ask** you – Я хочу спросить тебя.

I want **to be asked** – Я хочу, чтобы меня спросили.

I happened **to be asking** her about you when you came in. Так случилось, что я спрашивал ее о тебе, когда ты пришел.

You could **have asked** me first. Ты мог бы сначала спросить у меня.

She could **have been asked** by anybody. Ее мог спросить кто угодно.

**Синтаксические функции инфинитива и их перевод на русский язык:**

**1. Подлежащее** (subject)

Инфинитив в функции подлежащего занимает в предложении глаголу в неопределенной форме или существительному в именительном падеже.

To know English is important. Знать английский язык важно/Знание английского языка важно;

**2.** **Обстоятельство цели** (adverbial of purpose)

Инфинитив в функции обстоятельства переводится на русский язык при помощи союза **чтобы.**

To get high yields *we* must irrigate the soil. Чтобы получить высокие урожаи, *мы* должны орошать почву.

В данной функции инфинитив может вводиться также союзом **in order to** *(для того чтобы).*

In order to get high yields *we* must irrigate the soil.

Для того чтобы получитьвысокие урожаи, *мы* должны орошать почву.

Союз in order не следует путать с существительным order порядок, приказ, перед которым может быть предлог in, но после которого не употребляется частица to.

Everything is in order. Все в порядке.

**Примечание.** Чтобы правильно определить функцию, нужно найти в предложении подлежащее. Если подлежащее имеется, то инфинитив является обстоятельством, если нет, то инфинитив является подлежащим.

Инфинитиву, который следует после слов **too** слишком, **sufficiently** достаточно, **enough** достаточно, в русском языке соответствует неопределенная форма глагола с предшествующим союзом чтобы/ для того, чтобы.

This soil is too bad to cultivate it. Эта почва слишком плохая, чтобы ее возделывать.

This soil is good enough to cultivate it.

Эта почва достаточно хорошая, чтобы ее возделывать.

**3.** **Определение** (attribute)

Инфинитив в функции определения следует в предложении за существительным. При переводе предложения на русский язык такому инфинитиву обычно соответствует определительное придаточное предложение с союзным словом *который*; сказуемое этого предложения выражает, как правило, долженствование, возможность или действие в будущем.

These are students to take part in the discussion.

Это студенты, которые примут участие в дискуссии.

We spoke about examinations to be taken in summer. Мы говорили об экзаменах, которые надо будет сдавать летом.

**4. Дополнение** (object)

В функции дополнения инфинитив стоит после глагола-сказуемого или прилагательного. На русский язык обычно переводится неопределенной формой глагола, отвечающей на вопрос (что делать?).

I hope to see you next week. Надеюсь увидеть вас на следующей неделе.

I am glad to help you. ­­­­ Я рад помочь вам.

**5.** **Именная часть сказуемого** (predicate nominative)

Составное сказуемое бывает именным или глагольным. Составное именное сказуемое состоит из связки (глаголов **be, feel, keep, become, grow, get, turn, seem, appear** т.п.) и именной части составного глагольного сказуемого, указывающей на само действие.

His aim was to inform Mark. Его целью было проинформировать Марка.

**6. Часть** **составного** **глагольного** **сказуемого** (compound verbal predicate)

We intend to celebrate this occasion. Мы намереваемся отпраздновать это событие.

**Task 1. Translate the sentences paying attention to the functions of the Infinitive.**

1. To play chess was his greatest pleasure. 2. The child did not like to be washed. 3. Which is more pleasant: to give or to be given presents? 4. To improve your pronunciation you should record yourself and analyze your speech. 5. Nature has many secrets to be discovered. 6. To be instructed by such a good specialist was a great advantage. 7. He is very forgetful, but he doesn’t like to be reminded of his duties. 8. I have come here in order to meet her. 9. To smoke is harmful. 10. He stopped to speak to his friend.

**Task 2. Find subject and predicate in each sentence. Determine the functions of the Infinitive (subject or adverbial of purpose).Translate the sentences.**

1. To clean teeth twice a day should become a habit. 2. To take a proper care of your health is very important. 3. To get adequate results the scientists carried out a series of experiments. 4. To be strong and healthy you must always do your morning exercises. 5. To walk in the garden was a pleasure. 6. The car was waiting at the door to take them to the station. 7. To explain the problem he drew diagrams all over the blackboard. 8. To discuss your work is necessary today. 9. To advertise in magazines is very expensive. 10. To meet the increased demand for industrial goods, a great number of new shops have been opened in the towns.

**Section 2. Vocabulary and word study**

**Active Vocabulary. Text A**

|  |  |
| --- | --- |
| 1) measure | мера |
| 2) so long as | пока |
| 3) related | cвязанный, родственный |
| 4) subdivide | подразделять(ся) |
| 5) aware | осознавать |
| 6) avoid | избегать |
| 7) stunt | задержка в росте |
| 8) internode | междоузлие |
| 9) sheath | щель |
| 10) boot leaf | обёртка, шелуха, чешуя |
| 11) vestige | след, остаток |
| 12) chaff | мякина, соломенная сечка |
| 13) wash away | вымывать, смывать |
| 14) contaminate | заражать, загрязнять |
| 15) eventually | возможный, конечный |
| 16) inconspicuous | незаметный |
| 17) awn | ось сложного колоса |
| 18) mycelium | грибница |
| 19) hull | шелуха, лущить |
| 20) dormant | спящий, дремлющий |
| 21) threadlike | нитевидный, волокнистый |
| 22) tissues | ткани |
| 23) disinfectant | дезинфицирующее средство |

**Task 1. Give Russian equivalents to the following English words:**

Distinct, develop, relatively, least, the same, a number of, amounting, annually, emerge, true, application, thresh, leaving, common.

**Task 2. Translate the following word combinations into Russian:**

By far; considerable damage; false loose smut; vestiges of chaff; deformed awns; compacted spore; be set free; on the other hand; grow as tall as heads; delicate grayish membrane; powdery mass.

**Task 3. Fill in the gaps with appropriate verb forms. Translate the sentences.**

1. Covered and false loose smuts … into a number of parasitic races.

a) be subdividing

b) are subdivided

c) subdivided

2. The smutted heads … .

a) break

b) are broken

c) is broken

3. Each smutted head … by a delicate grayish membrane.

a) is covered

b) are covered

c) covers

4. The spores … leaving an inconspicuous, bare rachis.

a) is blowing

b) are blown

c) is blown

5. The mycelium of the smut … the very young seedlings.

a) penetrate

b) is penetrating

c) are penetrated

6. Leaf rust sometimes … considerable damage.

a) be caused

b) causes

c) are causing

**Task 4. Choose the words with the same meaning:**

|  |  |
| --- | --- |
| 1) strain | a) need |
| 2) sound | b) various |
| 3) requirement | c) race |
| 4) different | d) every year |
| 5) emerge | e) healthy |
| 6) annually | f) appear |
| 7) a lot of | g) firm |
| 8) resistant | h) a great number of |

**Task 5. Translate the following sentences paying attention to the Infinitive.**

1. The aim of plant protection is to stop the spread of harmful organisms and to prevent their introduction before they become agricultural pests in specific crops and regions. 2. The first step of plant protection is to ensure a correct diagnosis of a problem. 3. To reduce pest attack the farmer decided to take actions. 4. To encourage the integration of agrarian disciplines in an interdisciplinary approach to plant protection is important for agriculture. 5. For farmers to obtain high yields they should apply modern technologies. 6. The work to be done in spring is connected with agrochemical measures. 7. The goal of plant disease management is to reduce the economic and aesthetic damage caused by plant diseases. 8. Plant pathology to be studied at the University involves pathogen identification, disease etiology, disease cycles, economic impact, plant disease epidemiology, plant disease resistance, etc. 9. To know more about plant diseases you can read Plant Pathology Journal. 10. Plant disease epidemiologists strive for an understanding of the cause and effects of disease and develop strategies to intervene in situations where crop losses may occur.

**Section 3. Reading and speaking**

**Task 1. Read and translate Text A.**

**TEXT А**

**COVERED AND FALSE LOOSE SMUT**

Covered and false loose smuts of barley are quite distinct in appearance, but their methods of development and their control are the same. These two fun diseases attack barley and a number of related grasses but they do not attack any other crop. Each of them is subdivided into a number of parasitic races, which differ only in that they attack different varieties of barley.

These two barley smuts still cause extensive economic losses amounting to millions of dollars annually. If farmers would only become aware of the facts about these diseases, such losses could be avoided. Both of them can be readily controlled by regular seed treatments with an effective seed disinfectant.

Appearance.

Covered smut stunts an affected host plant, particularly the top internodes of the stem; and the smutted head usually emerges through the sheath below the boot leaf. Smutted heads are compact and hard, and they usually contain vestiges of chaff and deformed awns. The compacted spores are not readily blown or washed away by wind and rain until harvested and threshed, then smutted heads are broken and large numbers of spores are set free to contaminate sound grain.

False loose smut, on the other hand, looks very much like true loose smut. Smutted heads emerge in the same manner and the same time, and grow as tall as heads of healthy plants. At first, each smutted head is covered by a delicate grayish membrane, which soon breaks down setting free a loose, dark-brown, powdery mass of spores. Eventually the spores are blown or washed away leaving an inconspicuous, bare rachis.

Disease Cycle.

Both covered and false loose smuts of barley are carried over from season to season as seed-borne spores. Under favorable conditions, during maturation of a crop and storage of seed, some seed-borne spores may germinate and produce a certain amount of mycelium under the hulls of the seeds. Both mycelium and spores remain dormant until affected seeds are planted and begin to germinate. Then the threadlike germ tubes and the mycelium of the smut penetrate the very young seedlings and the smut grows with the infected plant until the heads begin to develop. In young, developing barley heads, the smut mycelium displaces all or most of the plant tissues and by the time the affected heads emerge, they contain smut spores instead of seed and chaff.

Control.

Careful application of a recommended seed disinfectant gives good control of both covered and false loose smuts of barley.

**Task 2. Using the information from Text A, tell how plant disease appears and spreads, and estimate its economic importance for agriculture.**

**Task 3. Fill in the gaps with the words from the list given below and translate the sentences.**

1. The two barley smuts still cause … economic losses annually.

2. Both smuts can be … controlled by regular seed treatments.

3. Large numbers of spores are set free to contaminate … grain.

4. Both mycelium and spores remain … until affected seeds are planted and begin to germinate.

5. Leaf rust of barley is one of the … destructive diseases of this crop.

6. The threadlike germ tubes penetrate very young … .

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

sound, dormant, extensive, least, readily, seedlings

**Task 4. Answer the questions.**

1. Are covered and false loose smuts of barley quite distinct in appearance?

2. What disease attacks different varieties of barley?

3. When could losses be avoided?

4. Where does covered smut stunt an affected host plant?

5. When are spores set free?

6. When can some seed-borne spores germinate?

7. Which defect grows with the infected plants?

8. Which measures of control give good results in case of covered and false loose smuts of barley?

**Task 5. Read and translate Text B.**

**TEXT В**

**NET BLOTCH**

There are different races of blotch. They spot blotch, net blotch, and speckled blotch.

Net blotch is one of the most common leaf-spot diseases of barley. Crop losses resulting from this disease are proportional to the amount of leaf area destroyed by the fungus. When conditions favor disease development heavy infection can reduce yields considerably.

Appearance.

The disease attacks leaves and also leaf sheaths and glumes. Typical leaf blotches are light green or brownish at first. As the blotches develop, irregular lines appear. The lines are a darker brown than the surrounding area and give the blotches their characteristic, netted appearance. As the blotches grow older their centers become uniformly dark brown and the lines forming the net are visible only at the margin of each blotch. Sometimes, especially on young plants, the net does not develop and blotches are uniformly deep brown. At first the blotches are small but they develop lengthwise along the leaves, and two or more of them may join to form long streaks.

Disease Cycle.

The fungus overwinters on or in seed, or on the plant remains of a previous crop. In the spring, the overwintered fungus on seed or plant remains grows and infects the young plants of the new crop. Further spread of the disease is brought about by spores produced in the new infections on the young plants.

Control.

The disease is seed-borne and hence seed treatment with a recommended seed disinfectant is a valuable method of control. Crop rotation is also an important control measure because it limits the spread of the disease from the remains of previous crops.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) blotch  2) spot | пятнистость, крапчатость  пятно |
| 3) net blotch | сетчатая пятнистость |
| 4) spot blotch | бурая пятнистость |
| 5) speckled  6) speckled blotch | пятнистый, крапчатый  крапчатая пятнистость |
| 7) glume | колосковая чешуя |
| 8) area | поверхность, зона |
| 9) uniformly | одинаково, равномерно |
| 10) line | линия |
| 11) visible | видимый, явный |
| 12) margin | край |
| 13) lengthwise | продольный |
| 14) streak | полоса, черта, прочертить |
|  |  |

**Task 6. Find in the text the English equivalents of the following words and word combinations.**

Распространённая болезнь листовой пятнистости; поверхность листа; значительно сокращать урожай; листовые влагалища и чешуйки; неровные линии; край пятна; темно-коричневый; сначала; остатки растения; предшествующий урожай; следовательно; важная мера контроля.

**Task 7. Choose the appropriate items to fill in the gaps.**

1. … is one of the most common leaf spot diseases of barley.

a) loose smut

b) net blotch

c) blight

2. The disease attacks … .

a) stems and roots

b) branches

c) leaves and sheaths

3. The net doesn’t develop and the blotches are uniformly … .

a) deep brown

b) pale green

c) bluish red.

4. As … develop irregular lines appear.

a) glumes

b) blotches

c) sheaths

5. The fungus … on or in seed or on the plant remains.

a) develops

b) attacks

c) over winters

**Task 8. Speak on the topics.**

1. The change of plant appearance in case of net blotch.

2. The pathological process of net blotch.

**Task 9. Read and translate Text C.**

**TEXT С**

**BACTERIAL BLIGHT**

Bacterial blight of barley is caused by a bacterium similar to the one that causes bacterial black chaff of wheat. The main difference between them is in the kind of crop they can attack. At times there are severe local outbreaks, and occasionally considerable damage is done over a wide area.

Appearance.

The first sign of an attack of bacterial blight is the development on the leaves of barley plants of pale - green areas, some of which have small, brown spot in their centers. Later, these areas appear water - soaked. They may form stripes several inches long or may assume rounded or irregular shapes. At this stage, the bacteria ooze out into droplets of rain or dew, and when dry may be seen as thin scales of exudates or as tiny amber-colored beads. Later the infected spots become golden yellow and, finally, they turn pale brown. To detect the disease at its later stages of development in a field, hold up an affected leaf and look at it against a bright part of the sky. If the disease is bacterial blight, you will see translucent areas in it. In severe infections whole plants may become infected and their leaves entirely destroyed.

Disease Cycle.

This is a seed-borne disease, the bacteria being carried mainly in infected hulls. The blight may also be carried over winter on crop remains and on infected grasses. In wet weather plant-to-plant spread in a field is rapid, but in dry weather crop recovery may occur as new uninfected growth develops.

Control.

Whenever possible, sow seed from uninfected fields. Crop rotation helps to control the disease and barley should never be sown directly after barley.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1. blight | скручивание |
| 2. outbreak | вспышка |
| 3. water soaked | водянистый, мокрый |
| 4. ooze | вытекать |
| 5. exudate | выделение |

**Task 10. Find in the text the English equivalents of the following words and word combinations.**

Мельчайшие «янтарные» капли; временами; возможно; признак; бледно-зелёный; полоса; дюйм; неровная форма; тонкий слой; определить; полупрозрачные места (пятно); при ярком свете; шелуха, кожица; восстановление культуры; непосредственно.

**Task 11. Choose correct answers to the following questions.**

1. What is Bacterial blight of barley caused by?

a) Bacterial blight of barley is caused by fungi.

b) Bacterial blight of barley is caused by pests.

c) Bacterial blight of barley is caused by bacterium.

2. What is the first sign of an attack of bacterial blight?

a) … the development on the leaves of barley plant of pale-green areas.

b) … the appearance of water-soaked and gray-green plots.

c) … the approaching of pale-blue areas on stems.

3. When will you see translucent areas on affected leaf?

a) ... if the disease is yellow dwarf

b) ... if the disease is stripe mosaic.

c) ... if the disease is bacterial blight.

**Task 12. Tell how the appearance of plant is changing in the process of disease development.**

**UNIT 5. DISEASES OF OATS**

**Section 1. Grammar**

**Инфинитивные обороты (Infinitive Constructions)**

Инфинитив входит в состав инфинитивных конструкций (оборотов):

1) Сложное дополнение (Complex object)

2) Сложное подлежащее (Complex subject)

3) Конструкция, вводимая предлогом for («For» infinitive construction)

**Сложное дополнение (Complex object)**

Это сочетание местоимения в объектном падеже или существительного в общем падеже с инфинитивом.

|  |  |  |  |
| --- | --- | --- | --- |
| Подлежащее | Сказуемое | Местоимение в объектном падеже или существительное | Инфинитив |
| They | knew | him | to be wrong |
| Они | знали, что | он | был не прав |

Оборот сложное дополнение употребляется после глаголов:

1. **Предположения** (to think, to expect, to believe, to suppose, to feel, to trust и так далее)

I expected her to talk to me. Я ожидал, что она поговорит со мной.

**Запомните:**после глаголов  to consider, to declare, to find обычно глагол to be опускается, не используется.

They find her very beautiful. Они считают её очень красивой.

2. **Чувственного восприятия (to see, to watch, to feel и так далее).** После них инфинитив употребляется без частицы **to**.

I saw her come home. Я видел, как она пришла домой.

3. **Желания (to want, to desire, to wish** и так далее**)**

I want her to come back. Я хочу, чтобы она вернулась обратно.

4. **Приказа и разрешения (to order, to encourage, to allow** и так далее**)**

I allowed his friend to visit us- Я позволил его другу навестить нас.

После глаголов **to see** и **to notice** сложное дополнение не используется с глаголом to be, используется that.

I saw that she was excited. Мы видели, что она была рада.

**Сложное подлежащее (Complex subject)**

Включает в себя сочетание подлежащего и инфинитива в сложной глагольной форме.

|  |  |  |
| --- | --- | --- |
| Существительное или  местоимение | Глагол, обычно  в пассивном залоге | Инфинитив |
| They | were thought | to be dishonest |
| Их | считали | нечестными |

**Complex subject** используется после глаголов:

1. **To say, to report, to state, to announce, to allow, to ask в пассивном залоге.**

He is said to know him. Говорят, он знает его.

2. **Глаголов чувственного восприятия и умственного состояния: to see, to believe, to know** и так далее в пассивном залоге.

He was heard to cry noisily. Было слышно, как она громко плачет.

3. **Глаголов to seem/ to appear­­­-казаться, to turn out, to prove, to happen, to chance (в значении случаться)**

It seems to be unbelievable. Это кажется невероятным.

4. **Прилагательных: to be likely – вероятно, to be unlikely – маловероятно, to be certain/ to be sure – несомненно, обязательно.**

They are unlikely to get know each other. Вряд ли они знают друг друга.

**Примечание:**

1. Только глаголы **to expect, to be likely, to be certain/to be sure** могут выражать будущее время.

 I am sure to do this. Я обязательно сделаю это.

2. Если после **to seem/to appear, to prove** следует прилагательное, то глагол **to be** опускается.

 She seems happy. Она выглядит счастливой.

**Конструкция, вводимая предлогом for (for+nfinitive construction)**

Сочетание предлога **for** с существительным в общем падеже или местоимением в объектном падеже и инфинитива.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Предлог for | Существительное или местоимение | Инфи-  нитив |
| It is difficult | for | me | to tell |

Перевод: Мне сложно это рассказывать.

Объектному падежу свойственно употребление в качестве дополнения,  в то время как для субъектных местоимений характерна роль подлежащего. Объектный падеж может переводиться различными способами, однако так как перед ним стоит предлог **for** (для), соответственно, в этом случае объектный падеж местоимения будет отвечать на вопросы «для кого?» или «кому?».Инфинитив можно употреблять как в активном залоге, так и в пассивном.

**Функции в предложении:**

1. **Сказуемое**

This cake is for children to eat. Этот торт для детей.

2. **Подлежащее.** Обычно вводится с **it**.

It is difficult for me to understand it. Мне сложно это понять.

3. **Определение**

The best advice for him to talk to his parents. Лучший совет для него – поговорить с его родителями.

4. **Дополнение**

They waited for me to come home. Они ждали, что я приду домой.

5. **Обстоятельства цели.**

He repaired TV set for you to watch it. Он починил телевизор, что вы могли его смотреть.

**Task 1. Translate the sentences paying attention to Infinitive Constructions.**

1. I consider your success to be very significant. 2. For him to become a prizewinner he should train well. 3. I believe this to be true but I want to know more. 4. When I listen to music, I like it to be loud. 5. He is said to spend his vacation in the South. 6. You are expected to get a job at a big company or something like that. 7. I think they expected me to congratulate them. 8. These snacks seem to be delicious.. 9. The scientists are supposed to make a discovery in astronomy. 10. For Helen to take part in the conference she has to be registered on the website.

**Task 2. Translate into English using the Infinitive Constructions: Complex Subject or Complex Object.**

1. Он хочет, чтобы мы пришли к нему сегодня. 2. Я хотел бы, чтобы вы подождали меня здесь. 3. Он хочет, чтобы его сын стал фермером. 4. Известно, что его послали в Москву на конференцию. 5. Говорят, ее пригласили на вечеринку. 6. Мы не хотели, чтобы вы его прерывали. 7. Вы хотите, чтобы он вам помог? 8. Сообщают, что поезд отправляется через 25 минут. 9. Я хочу, чтобы его статья была опубликована. 10. Доктор не хочет, чтобы вы ехали на юг.

**Section 2. Vocabulary and word study**

**Active Vocabulary. Text A**

|  |  |
| --- | --- |
| 1) сrown rust | корончатая ржавчина |
| 2) throughout | повсюду, на всей ... |
| 3) timothy | тимофеевка (трава) |
| 4) scarce | недостаточный, скудный |
| 5) underside | нижняя сторона |
| 6) pronglike | зубчатый |
| 7) apex | верхушка |
| 8) discharge | выброс, выделение |
| 9) buckthorn | жостер, крушина |
| 10) outbreak | вспышка |
| 11) vicinity | район, округа |
| 12) resemble | походить |
| 13) enclose | заключать |
| 14) vestige | остаток |
| 15) hull | шелуха, скорлупа |
| 16) cluster | соцветие, кисть |
| 17) gray speck | серая пятнистость |
| 18) lack | недостаток |
| 19) soluble | растворимый |
| 20) convert | превращать |
| 21) pasturage | подножный корм |
| 22) cope | справляться с ч-л |
| 23) patchy | пятнистый, пёстрый |
| 24) tip | верхушка |
| 25) heading | образование колосьев |
| 26) blast | бластея, увядание, гниль |
| 27) panicle | метёлка (соцветие) |
| 28) spikelet | колосок |
| 29) wither | вянуть, сохнуть |
| 30) outer | внешний, наружный |

**Task 1. Read the following words. Find their meanings in the dictionary.**

Occur, wild, throughout, slightly, amount, ability, resistant, chaff, race, glume, strain, currently, projection, responsible for, meadow fescue.

**Task 2. Choose English words corresponding to Russian terms given in the left column:**

|  |  |
| --- | --- |
| 1. сорт | vary, various, variety |
| 2. обработка | cultivate, cultivation, cultivating |
| 3. мера | measurable, measure, measurement |
| 4. замена | replace, replacement, replaceable |
| 5. восприимчивость | susceptive, susceptible, susceptibility |
| 6. росток | germinate, germ, germination |
| 7. преобладание | prevail, prevalent, prevalence |
| 8. зреть | ripen, ripe, ripeness |

**Task 3. Make up adjectives with suffix -ish** **and translate them into Russian.**

red, blue, gray, white, brown, green.

**Task 4. Fill in the gaps with appropriate forms of the verbs and translate the sentences into Russian.**

1. The summer stage of crown rust can … the winter in some regions.

a) be survived

b) survived

c) survive

2. Each of the oat smuts … up of a number of distinct races.

a) be made ...

b) make ...

c) is made ...

3. The spores of the covered smut fungus … in vestiges of the outer chaff.

a) are enclosed

b) is enclosed

c) enclose

4. Stem rust … wheat, barley or rye.

a) attack

b) be attacked

c) does not attack

5. Infected heads … at the same time as heads of healthy plants.

a) be emerged

b) emerge

c) emerges

6. When infested seed …, germ tubes originating from seed borne spores penetrate the oat seedlings.

a) plants

b) is planted

c) planted

7. Gray speck … in many districts of our country.

a) are found

b) has been found;

c) find

**Section 3. Reading and speaking**

**Task 1. Read and translate Text A.**

**TEXT А**

**CROWN RUST**

Crown rust, sometimes called leaf rust, occurs on wild and cultivated oats and on several grasses that grown throughout most of the agricultural area. This fungus disease often causes extensive damage. The rust does not infect wheat, barley or rye. Timothy is the only widely cultivated grass attacked by crown rust and is only slightly susceptible. The amount of crown rust infection varies greatly from year to year.

Crown rust, like other cereal rust, consists of many parasitic races differing from one another in their ability to attack various oat varieties. At least 65 races of crown rust occur in North America. A large number of oat varieties are resistant to many of these races but no one variety is resistant to all of them. Oat varieties currently used in breeding for resistance to crown rust are susceptible to only a very few of the races and these races are, scarce.

Appearance.

The summer stage of this rust produces orange pustules on the leaves, sheaths and glumes of oat plants. As the plants begin to ripen the orange spore masses are replaced by spores of the winter stage which form on the underside of the leaves and look shiny and black. Each black spore has pronglike projections form a kind of crown around its apex – hence the name crown rust.

Disease Cycle.

The winter spores survive until spring or early summer when they germinate and produce very small spores which are discharged into the air. They cannot infect oats or grasses but they do infect several kinds of buckthorn. The rust produced on the buckthorn cannot reinfect buckthorn but infects oats, on which it produces the summer stage of the rust. Susceptible buckthorns are common in many areas and are frequently responsible for local outbreaks of crown rust in these provinces. Most buckthorn plantings are in the larger towns and do not play a significant role in the spread of crown rust. The summer stage of crown rust can survive the winter in the southern regions. The first crown rust infections that appear each summer are caused by wind-borne spores carried from northern rusted fields.

Control.

As with other cereal rusts, control is best accomplished by using an oat variety recommended for its resistance.

Other measures helpful in reducing crown rust infection are early sowing, which gives oat plants a chance to ripen before infection becomes heavy, and destruction of any buckthorn bushes in the vicinity of grain fields.

**Task 2. Using the information from Text A, tell how to control a crown rust of oats.**

**Task 3. Fill in the gaps with the words from the list given below and translate the sentences into Russian.**

1. Timothy is only … .

2. As the plants begin to ripen … are replaced by spores of the winter stage.

3. The amount of infection … varies greatly from year to year.

4. The winter spores cannot infect oats but they do infect … .

5. … are common in many areas and are responsible for local outbreaks of crown rust.

6. … gives oat plants a chance to ripen before infection becomes heavy.

7. The … of crown rust can survive the winter.

Several kinds of buckthorn; the orange spore masses; early sowing; by crown rust: slightly susceptible; susceptible buck thorns; summer stage.

**Task 4. Answer the questions:**

1. What plants are attacked by crown rust?

2. Where does crown rust occur?

3. What wild grasses are attacked by crown rust?

4. What is the difference of crown rust races?

5. What has each spore of crown rust?

6. What is the reason of appearing the first crown rust infection?

7. What measures are used to control crown rust infection?

**Task 5. Read and translate Text B.**

**TEXT В**

**GRAY SPECK**

Manganese Deficiency.

Gray speck is caused by a lack of soluble manganese in the soil. Manganese is a mineral element essential to the growth of oats. Even if plenty of manganese is present in the soil; it is of no use unless the crop can take it up. Some soils hold it in an insoluble form. Living plants need it to convert nitrogen from the soil into proteins which have food value for man and animals. Gray speck affects oats chiefly, but is sometimes seen also on wheat and barley.

Because gray speck is the direct result of the scarcity of available manganese, its severity depends on the degree of the scarcity. Thus, when manganese is very scarce the disease can become so severe that a crop will not come into head. Furthermore, the growth that takes place will not even make good pasturage.

Fortunately, such conditions are rare. Gray speck has been found in many districts, but the acreages affected have been comparatively small. Although the damage has not been widespread, a farmer who happens to have a manganese-deficient field or farm may suffer seriously unless he learns to cope with this disease.

Appearance.

An affected field may have an unthrifty, patchy or brownish appearance, which is noticeable even at a distance of several meters. The brownish appearance is attributable partly to old affected leaves which die prematurely, and partly to numerous small dead spots distributed along leaves that are still green, at first vary from light-green to gray and later from whitish to brown.

The first signs of disease do not usually appear until the fourth or fifth leaf has developed. A characteristic sign is breaking over all leaves about two-thirds of the distance from their tips. This breaking occurs at a point where a leaf has been killed by the disease. As the disease progresses, series of small, oval, whitish spots appear between the veins of the younger leaves. Under conditions of very great manganese deficiency, plants die early.

**Vocabulary notes**

|  |  |
| --- | --- |
| 1) scarcity | недостаток |
| 2) sign | признак |

**Task 6. Tell what you know.**

1) about specific characters of gray speck

2) about causes of gray speck

**Task 7. Find in the text the English equivalents of the following words and word combinations.**

Важный; много; марганец; азот; несмотря на; в основном; более того; к счастью; хотя; заметный; частично; преждевременно; ломкость листьев; колошение; умеренно.

**Task 8. Choose the appropriate items to fill in the gaps.**

1. Some soils hold it in an … form.

a) soluble

b) insoluble

c) soluted

2. The growth that takes place will not even make good … .

a) pasturage

b) field

c) area

3. When leaf spots are few they may have … effect on the grain.

a) hard

b) little

c) strong

**Task 9. Read and translate Text C.**

**TEXT С**

**BLAST**

A Nutritional Disorder.

Appearance.

Oat blast is a condition familiar to most farmers because every field of oats displays, shortly after heading, a considerable number of panicles with blasted spikelets. Instead of all the spikelets containing two kernels, there are a number of panicles with blasted spikelets. Instead of all the spikelets containing two kernels, there are a number of empty spikelets, usually in the lower part of the panicle, that have withered before the kernels were formed. Only partially formed, white, empty glumes are left and it is these that are responsible for the characteristic appearance of the disease.

Cause.

To understand the cause of oat blast, it is necessary to know how the panicle of the oat plant is formed within the plant. Normally, several weeks before the panicle emerges, the plant begins to form young spikelets. Under favorable conditions these spikelets will mature. However, if growing conditions change greatly for the worse (as in a severe drought) shortly before the plants head out, they respond by sacrificing the spikelets on which they have expended the least energy. That is why blasted spikelets are usually on inner branches, near the base of the panicles where the youngest spikelets are located.

Control.

There is no known way to control blast. Late-sown oats often have more blast than those sown early. Early sowing usually results in larger panicles and, even if there is considerable blast, better yields. Some varieties tend to be less susceptible to blast than others but they are not always the best yielders.

**Vocabulary notes:**

|  |  |
| --- | --- |
| 1) to display | показывать, проявлять |
| 2) blasted | зараженный бластеей |
| 3) kernel | зерно |

**Task 10. Find in the text the English equivalents of the following words and word combinations:**

Условие, известное к-л; сразу после колошения; до того как сформировалось зерно; за несколько недель до; при благоприятных условиях; к худшему; поздний сев.

**Task 11. Choose correct answers to the following questions:**

1. What is responsible for the characteristic appearance of the disease?

a) ... blasted spikelets

b) ... white, empty glumes

c) ... oat heads

2. When does the plant begin to form young spikelets?

a) after the first spikelets appear

b) as the oat plant begins to wilt

c) several weeks before the panicle emerges

3. What ways to control do you know?

a) ... late sowing of oat

b) ... early sowing of oat

c) ... treatment of grain

**Task 12. Tell why oat blast is familiar to most farmers.**

**ЗАКЛЮЧЕНИЕ**

Учебное пособие представляет собой взаимосвязанный комплекс материалов, в процессе работы над которым обучающиеся должны овладеть профессиональной англоязычной терминологией, активизировать грамматические структуры, усовершенствовать их реализацию во всех видах речевой деятельности. Таким образом, логическая структура учебного пособия позволяет осуществлять формирование коммуникативной компетенции, под которой понимается умение соотносить языковые средства с конкретными сферами, ситуациями, условиями и задачами профессионального общения, предполагающего ознакомление с международными практиками и инновационными технологиями, а также осуществление профессионального взаимодействия и обмен опытом в профессиональной деятельности.

Многообразие учебного материала позволяет варьировать объем заданий и может способствовать решению некоторых сложных задач, связанных с дифференцированным подходом к обучению, учетом индивидуальных особенностей и степени подготовки обучающихся.

Так как характер учебного материала, его методическая организация делают возможным взаимосвязанное обучение всем видам речевой деятельности на иностранном языке, способствуют изучению грамматического строя английского языка, обучению чтению и переводу англоязычной литературы, они также обеспечивают постепенный переход к работе с аутентичными профессионально ориентированными текстами.

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**Тапехина** Татьяна Евгеньевна

**ЗАЩИТА РАСТЕНИЙ**

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