

МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РФ  
ГОСУДАРСТВЕННОЕ ОБРАЗОВАТЕЛЬНОЕ  
УЧРЕЖДЕНИЕ  
ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ  
«ВОРОНЕЖСКИЙ ГОСУДАРСТВЕННЫЙ  
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## **ФАРМАКОГНОЗИЯ**

Учебно-методическое пособие  
для чтения специальных научных текстов  
по фармакогнозии

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Учебно-методическое пособие подготовлено на кафедре английского языка естественно-научных факультетов факультета романо-германской филологии Воронежского государственного университета.

Данное учебно-методическое пособие является частью создаваемого на кафедре английского языка учебно-методического комплекса для студентов дневного отделения фармацевтического факультета.

Пособие состоит из 10 разделов, объединенных по тематическому принципу. Каждый раздел включает в себя текст, сопровождаемый комплексом упражнений, выполнение которых направлено на овладение терминологией в рамках определенной тематики и на развитие навыков изучающего и поискового чтения.

Представленный материал посвящен таким фундаментальным явлениям фармакогнозии, как характеристика лекарственных растений, особенностей их строения и специфика их использования в медицинских целях. Наличие глоссария и иллюстраций восполняют недостаток справочной литературы по данной тематике.

Учебно-методическое пособие предназначено для практических занятий по английскому языку и может быть использовано в качестве дополнительного материала к основному курсу как на аудиторных занятиях, так и в ходе индивидуальной работы.

## ***Text 2. Herbal drugs***

I. Read and learn the following words:

herbal drugs – лекарственное растительное сырье (ЛРС);  
algae – водоросли;  
lichen – лишайники;  
binominal system – биномиальная система;  
thin – layer chromatography-тонкослойная хроматография;  
assay – количественное определение, анализ;  
comply with – соответствовать, подчиняться (правилам).

Herbal drugs are regarded as pharmacognostically interesting and they comply with the requirements of the European Pharmacopoeia. These requirements are reproduced in the following text.

Definition.

Herbal drugs are mainly whole, fragmented or cut plants, parts of plants, algae, fungi, lichen in an unprocessed state, usually in the dried form but sometimes fresh. Herbal drugs are assigned by a botanical scientific name according to the binominal system.

Production.

Herbal drugs are obtained from cultivated or wild plants. Suitable collection, cultivation, harvesting, drying, fragmentation and storage conditions are essential to guarantee the quality of herbal drugs. Herbal drugs are free from impurities such as soil, dust, dirt and other contaminations.

Identification.

Herbal drugs are identified using their macroscopic and microscopic descriptions and any further tests that may be required (for example, thin-layer chromatography).

Tests.

A test for foreign matter is carried out, unless otherwise prescribed in the individual monographs. If appropriate, the herbal drugs undergo other tests, for example, total ash, ash insoluble in hydrochloric acid, extractable matter, swelling index and bitterness value tests. The test for loss on drying is carried out on herbal drugs, unless otherwise prescribed in the individual monographs. A test for determination of water is made for herbal drugs with a high essential oil content.

Storage.

Store in a well-closed container, protected from light.

### **Activities**

I. Find in the text the following words and phrases and translate them:

испытание на примеси, хранение, измельченное или резаное растение, качество лекарственного растительного сырья, индекс набухания, показатель горечи, потеря массы при высушивании.

II. Open the brackets using an appropriate derivative from the text:

1. Herbal drugs are in an ...(process) state, usually in the dried form but sometimes fresh.
2. Herbal drugs are free from...(purity) such as soil, dust and dirt.
3. A test for foreign matter is ...(carry) out, unless otherwise prescribed in the individual monographs.
4. The...(herb) drugs undergo other tests.
5. A ...(determine) of water is carried out for herbal drugs with a high oil content.

III. Mark the following statements as T(true) or F(false):

1. Herbal drugs are only whole plants.
2. Some specific appropriate tests may be applied to herbal drugs.
3. Suitable collection, cultivation, drying conditions are essential to guarantee the quality of herbal drugs.
4. Herbal drugs are assigned by a botanical scientific name according to the binominal system.
5. Store in a well-closed container, protected from light.

IV. In the two texts find the following sentences:

1. Giving the definition of pharmacognosy;
2. Giving the explanation of the word pharmacognosy;
3. Presenting the subject of the pharmacognostic studies;
4. Giving the description of herbal drugs;
5. Describing tests that are carried out on herbal drugs;
6. Telling about the storage of herbal drugs.

V. Discuss the herbal drugs in pairs. Dwell on:

1. Characteristics;
2. Production;
3. Tests.

## UNIT 2

### Pre-reading tasks

I. Read and learn the following words.

fibrous root system – мочковатая корневая система;

taproot – стержневая корневая система;

adventitious root – побочный корень;

vegetative organs – вегетативные органы;

reproductive organs – генеративные органы;

bud – почка, бутон.

II. Look through the text and define the underlined words using the Appendix (p. 29).

### ***Text 1. Plant body organization***

Every plant contains many different types of cells, tissues and organs. They are composed of many repeating units. These units are organs such as leaves, roots, flowers and stems. Seed plants have specialized organs for growth and reproduction. Vegetative organs (roots, stems and leaves) function in the process of growth. The reproductive organs of seed plants include flowers and fruits. Most plants are stationary organisms. Their anatomy, way of life and mode of reproduction are adapted to meet the needs in water, energy and mineral nutrients.

Many plants are divided into a root below the ground and a shoot above it. The root is a branching organ that grows downward into the soil, anchors the plant and supports it both physically and nutritionally. On the one hand roots spread out through the soil to provide a solid base of attachment. On the other hand they absorb and transport water and mineral nutrients that the plant cannot take in from the air. There are two common types of root systems: a fibrous root system that consists of a million branching roots and a single large taproot which extends deep into the soil with other smaller roots branching from it. There are also adventitious roots that can arise from stems or leaves. The shoot includes the stem, branches, leaves, flowers and fruits.

Stems are organs that conduct water and minerals from the roots to the other parts of the plant. Another important stem function is to display the leaves of the plant to the light. The stem plays also a central role in the transport of materials throughout the plant. Finally, some stems store food for the plant.

Leaves are organs which are attached to the stem. Every leaf is composed of two parts, the blade and the petiole. There are two kinds of leaves. A leaf with