

## **Lesson 4.**

**Topic of the lesson: Determination authenticity of medicinal raw materials of the morphological groups «Bark», «Underground organs»**

**Aims:** Determine the main indices of authenticity of the medicinal plant raw material «Bark», «Underground organs». Carry out macroscopic analysis of medicinal plant raw materials. Carry out microscopic analysis of medicinal plant raw materials. Identify the main groups of biologically active substances in the studied species of medicinal plant raw materials.

### **Work 1. Determination authenticity of medicinal raw materials (Bark).**

Take a sample of the medicinal raw materials "Bark" from the teacher. Carry out macroscopic analysis and microscopic analysis of medicinal plant material, and if the regulatory document specifies the section "Qualitative reactions" or "Determination of the main groups of biologically active substances", then conduct qualitative reactions to confirm the presence of BAS in the studied raw material.

#### **Macroscopic analysis:**

The medicinal plant material presented must be taken.

Describe the raw material according to the scheme in the analysis report.

#### **Microscopic analysis:**

Prepare micro preparations of bark, use a microscope to identify the main anatomical and diagnostic features of the raw material. Write down and draw in the analysis report the identified features.

#### **Qualitative reactions:**

If the ND specifies this section, carry out the qualitative reactions and write down the traces detected in the analysis report.

Conclude on the authenticity of this medicinal plant material.

### **Work 2. Determination authenticity of medicinal raw materials (Underground organs).**

Take a sample of the medicinal raw materials "Underground organs" from the teacher. Carry out macroscopic analysis and microscopic analysis of medicinal plant material, and if the regulatory document specifies the section "Qualitative reactions" or "Determination of the main groups of biologically active substances", then conduct qualitative reactions to confirm the presence of BAS in the studied raw material.

#### **Macroscopic analysis:**

The medicinal plant material presented must be taken.

Describe the raw material according to the scheme in the analysis report.

#### **Microscopic analysis:**

Prepare micro preparations of underground organs, use a microscope to

identify the main anatomical and diagnostic features of the raw material. Write down and draw in the analysis report the identified features.

**Qualitative reactions:**

If the ND specifies this section, carry out the qualitative reactions and write down the traces detected in the analysis report.

Conclude on the authenticity of this medicinal plant material.

## Protocol of analysis of medicinal raw materials

Date\_\_\_\_\_

Medicinal raw material Eng/Lat\_\_\_\_\_

Medicinal plant Eng/Lat\_\_\_\_\_

Family Eng/Lat\_\_\_\_\_

**Authenticity:**

**Macroscopic features:**

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**Microscopic features:**

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**Qualitative reactions:**

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**Conclusion:**\_\_\_\_\_

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