

INSECURES MEDICINAL POTTED PLANTS OF THE BOTANY DEPARTMENT OF NUPH

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Introduction. Indoor plants accomplish not only aesthetic, but also sanitary and hygienic purposes. Among these plants, there are a lot of well-known medicinal species, but there are dangerous ones. Potted plants are teaching aids, which are indispensable for high-quality lectures, seminars and workshops.

Aim. To analyze the types of indoor plants, to identify unsafe ones for human health, to study their usage in the educational process and to specify security measures when working with them.

Materials and methods. Comparative, descriptive method of systematization and definition of plants.

Results and discussions. At the Department of Botany NUPh are grown about 50 kinds of indoor plants, the selection of which is dictated primarily by the needs of the educational process. The largest number of species refers to the families of Araceae, Euphorbiaceae, Moraceae and Geraniaceae, that are widespread in gardening of interiors and office spaces. The Araceae family includes

Dieffenbachia bausei Regel., *Monstera deliciosa* Lieb., *Scindpsus pictus* Hassk., *Syngonium podophyllum* Schott., *Philodendron sodiroi* Hort. *Zamioculcas zamiifolia* Lood. The most widespread and dangerous of them is *Dieffenbachia bausei*. Poisonous sap of its shoots contains oxalic acid and calcium oxalate. After contact with the skin it causes severe irritation. *Dieffenbachia bausei* has phytoncidic activity – greatly reduces the content of pathogenic microorganisms in the air. In the educational process are used while studying the types of stomatal apparatuses and crystals of calcium oxalate.

Euphorbiaceae are represented by *Codiaeum variegatum* L., *Euphorbia leuconeura* Boiss., *E. mill* L., *E. tirucalli* L. and others. In all organs of these plants there is poisonous milky sap, that contains euforin poison. During skin contact it causes strong inflammation, and is dangerous at eye contact. In modern medicine preparations from representatives of this family are used in the form of extracts for the treatment of the stomach disease, kidney, dysentery, cystitis, hemorrhoids, externally are used to remove warts, freckles, trophic ulcers. In the educational process at the Department of Botany Euphorbiaceae is used to study

metamorphosis of stipules, stomatal apparatus types, endogenous secretory tissues.

From Moraceae are cultivated *Ficus alii* L., *F. benjamina* L., *F. elastica* Roxb at the Department. These plants can cause a variety of allergic reactions at people with an increased sensitivity, such as asthma, mucosal edema, vomiting. *Ficus* have a poisonous milky sap, which, when in contact with skin causes an acute inflammation, eczema, dermatitis. Members of the genus *Ficus* in the educational process are used in the study of plant morphology: life forms, branch types, leaf arrangement, leaves venation; fitogistologii: periderm, endogenous secretory tissues.

To the family of Geraniaceae are belonged *Pelargonium grandiflorum* Wild., *P. roseum* Wild., *P. zonale* L. The most popular representative is *Pelargonium roseum*. Leaves and stems are covered with glandular trichomes that secrete essential oil. Often allergy is due to this essential oil. In the perfume and pharmaceutical industries it replaces more expensive rose oil. It is used at the treatment of cardiovascular system, hypertension, asthma, kidney stones. In the educational process the species of *Pelargonium* are a classical object of studying of the structure of the escape, the morphology of the leaf epidermis and trichomes.

When using these species at the learning process and when looking after them it's necessary to keep simple safety rules. Working with plants one needs to wear gloves, after the work one should obviously wash his hands with soap, to cut parts of the plant – use a separate tool. If the sap nevertheless has got on the skin or mucous membrane, it should be carefully washed off with water, if necessary - to take anti-allergic agent. With the deterioration of general condition is necessary to seek medical help. After studying the properties of unsafe indoor plants, we can correctly use them in the studying process and bravely grow them in the classrooms.

Conclusions. Having studied the properties of unsafe indoor plants and the rules of working with them, we can safely grow in classrooms and use these plants competently in the learning process.