

metabolism, cell growth, digestion, testosterone production. Cu is involved in the transport of oxygen, promotes the resorption of Fe through intestine, and indirectly participates in the production of hemoglobin and myoglobin in muscle. The natural sources of minerals are: Mg – pumpkin seeds, spinach, dried plums, beans; K – dried apricots and plums, beans, baked potatoes, spinach, mushrooms; Zn – sprout wheat, pumpkin and sesame seeds, chickpea; Cu – sesame, sunflower seeds, walnuts; Fe – cereals, spirulina, plums, lentils, peanuts, spinach; P – nuts, algae, beans.

Conclusions. People who practice sports must use balanced natural sources of minerals daily.

Key words: sportsmen, minerals, role, natural sources

361. THE ORNAMENTAL PLANTS THROUGH THE LIGHT OF THE ACTIVE PRINCIPLES

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Introduction. The ornamental plants are wide-spread due to their beauty, usually considered to be without any value than decorative one, but there are some of them that also possess spicy (thyme), aromatic (lavender) or food properties (rosemary, basil), not to forget about their therapeutic qualities and toxicity. At first sight, the decorative plants are very harmless with a pleasant smell and look, but their varied chemical composition and therapeutic spectrum does not exclude their toxic potential.

Aim of the study. The selection of ornamental plants with therapeutic potential through the light of the chemical compounds and usage in medicine.

Materials and methods. Analysis of bibliographical data concerning the selected decorative plants used in office or house, their therapeutic and poisonous properties according to the chemical compounds.

Results. The research of chemical composition of these plants showed that the most important substances which they contain are: alkaloids (*Aphelandra squarrosa*, *Scindapsus aureus*, *Acalypha hispida*, *Dieffenbachia maculata*); volatile oils (*Hedera helix*, *Coleus forskohlii*), tannins (*Spathiphyllum cochlearispathum*, *Abutilon pictum*, *Ficus elastica*); flavonoids (*Anthurium andraeanum*, *Colocasia esculenta*); saponosides (*Dizygotheca kerchoveana*, *Fatsia japonica*, *Schefflera actinophylla*) and calcium oxalate (*Philodendron verrucosum*, *Syngonium podophyllum*).

Conclusions. Choosing of ornamental plant is an extremely important decision. Besides their beauty, the decorative plants can have both beneficial and negative effects on the state of the human body. It is necessary to know what effects can have the plants which share with us the same air and space everyday, in order to prevent possible damage to our health.

Key words: ornamental plants, chemical compounds

362. DIETARY FIBERS: EFFECTS ON HUMAN HEALTH

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Introduction. The simple term of dietary fibre originating with Hipsley (1953), but the most consistent definition is: non-digestible carbohydrates and lignin, functional fibers consisting of

isolated, non-digestible carbohydrates which have beneficial effects in humans and total fibre as the sum of dietary and functional fibers.

Materials and methods. The profile literature and database were evaluated and analyzed.

Results. Nowadays there are several classification systems of dietary fibers based on: role in the plant, type of polysaccharide, their simulated gastrointestinal solubility, products of digestion and physiological indicators. The accepted classifications are based on their solubility in a buffer at a defined pH, and/or their fermentability in an in vitro system. There are 2 groups of dietary fibers: water-insoluble/less fermented (cellulose, hemicellulose, lignin) and the water-soluble/well fermented fibers (pectin, gums, mucilages). Functions of dietary fibers in human body: add bulk to the diet; making feel full faster; attract water and turns to gel during digestion, trapping carbohydrates and slowing absorption of glucose; lower total and LDL cholesterol; regulate blood pressure; speed the passage of foods; add bulk to stool; balance intestinal pH and stimulate intestinal fermentation production of short-chain fatty acids. The benefits of dietary fibers on human health: may reduce appetite; lower variance in blood sugar levels; reduce risk of heart disease; reduce symptoms of metabolic syndrome and diabetes; reduce risk of colorectal cancers; alleviate constipation. The importance of food fibers has led to the development of a large market for fiber-rich products, there is a trend to find new sources of dietary for foods. Fiber supplementation of foods can change their consistency, texture, and sensory of the end products, can offer new opportunities in food industry.

Conclusions. Dietary fiber can be used in various functional foods. Influence of different processing treatments (like extrusion-cooking, canning, grinding, boiling, frying) alters their properties and improves their functionality.

Key words: dietary fibers, classification, function, benefits

363. MEDICINAL PLANTS AND PHYTODRUGS USED IN GASTROINTESTINAL TRACT DISORDERS

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Introduction. The digestive system is a morphological and functional ensemble of organs which is responsible not only for the digestion and absorption of the ingested food, but also for the evacuation of unassimilable residues. Diseases of the digestive tract can occur to any person, regardless of gender, age or social class and represent a problem both in the medical and socio-economic fields. In the R. Moldova, 8,8% of deaths are caused by the diseases of the digestive tract. The districts in the central area of the R. Moldova are the most affected by pathologies of the gastrointestinal tract, correlated with the quality of water and soil (salts, pesticide content). Today, there are many natural remedies that we can use before resorting medicamentous treatment.

Aim of the study. Analysis of vegetable products and phytodrugs used in the treatment of the diseases of the digestive system, with: anti-inflammatory, antidiarrheal, anthelmintic, tonic-bitter, laxative, carminative, regenerative, hepatoprotective activity.

Materials and methods. Evaluation of profile literature, the medicinal plants, active principles and phytodrugs according with the State Nomenclature of Medicines of Moldova.

Results. Among many medicinal plants used in digestive system diseases, we can mention: *Chamomilla recutita* L., *Linum usitatissimum* L. (antiinflammatory action through the content of volatile oils and polyholosides); *Vaccinium myrtillus* L., *Quercus robur* L., *Fragaria vesca* L., (antidiarrhoeal action is ensured by tanning substances); *Tanacetum vulgare* L., *Dryopteris filix-mas* L. (anthelmintic action – by the content of volatile oils and filicine); *Gentiana lutea* L.,