

Biodiversity of Useful Plants, Ethnobotanical Traditions and their Sustainable Use in Georgia.

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Georgia is a country in the Caucasus region famous for its favorable temperate climate and geographic and soil conditions, which greatly contributes to the establishment of rich biodiversity including cultivation of medicinal, aromatic, melliferous, dye, spicy and poisonous plants or Useful Plants.

The following parameters are essential for the future use of plant biodiversity, ethnobotanical traditions and for conservation of genetic and species diversity:

- ✓ Searching of and cataloging, monitoring, area, condition, conservation, bio-morphological research and in case of necessity, study of chemical composition, enrichment of existing database of useful plants in the different ecosystems of Georgia including endemic, rare and those on the verge of extinction;
- ✓ Raising awareness about the importance of protecting and rationally using the unique flora of Georgia;
- ✓ Creation of industrial plantations with innovative technologies to obtain ecologically pure or bio-raw materials;
- ✓ Intensification and sustainable use of ethnobotanical traditions and mechanisms for the promotion of phyto-production;
- ✓ Selection of plant groups interesting for the preparation of natural food additives;
- ✓ Differentiation of the conditions of production, drying, processing, storage of useful plants for their rational use;
- ✓ Creating an ecologically pure raw material base for the phyto-industry;
- ✓ Integrate the principles of equitable distribution of benefits with the rights conferred by the Convention on Biological Diversity of which Georgia is a party.

Recently, interest to the potential use of useful plants has increased more and more, despite the fact that synthetic - chemical means are abundantly available in the modern medicine, cosmetics and culinary . This process is not surprising, because the use of the latter is accompanied by multiple complications which do not occur when one uses the herbal means. The spectrum of pharmacologically active substances represented in plants formed during the ontogenesis with the strictly defined sequence, quantity and quantitative content, such as essential oils, alkaloids, glycosides, tannins, vitamins or biologically active substances, which have a mild and long-lasting effect on the human body, but the result is stable, which is an actual task in modern medical practice.

It should be noted that useful plants contain biologically active substances in strictly limited proportions and quantities in relation to the ecosystem. In addition, large use of antibiotics in child nutrition and animal feeding has been banned in many developed countries of the world. On this background, natural, biologically active phytonutrients will occupy an irreplaceable place in human or animal nutrition in the world market, wherewith is rich biodiversity of our country.

Experimental research was conducted using proven methods: Biological control of environment (monitoring), GIS-Arcview, International crop descriptors, International collecting descriptors, Biomorphological research was carried out by classical methods during the period of ontogenesis.

We have elaborated recommendations for Georgia on historically traditional priority – growth and production technology of ecologically pure standard raw materials and products of

useful plants. A highly productive model for diagnostics has been created in the block of earth - environment- plant – fertilization - harvest, and impact of ecosystems on productivity, quality of raw materials and production has been differentiated.