



NEW PERSPECTIVE CULTURE LEMONGRASS

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Summary: *In the article is reviewed use and value of Botanical-Morphological characteristic of new perspective culture –Lemongrass. Containing the biologically active substances, such as geraniol and citronellol, it is widely used in cooking, food industry, medicine, perfumery, and as an ornamental plant, a means of protection against insects.*

Lemongrass can be successfully introduced in the field of the development of ecological agriculture for producing environmentally friendly products, since pesticides and chemicals are not used in its tending-growing agro-technology

Key words: *lemongrass, botanical-morphological characteristic*

Georgia is an agrarian country, and has considerable agricultural potential. Natural climatic conditions that are characteristic of the subtropical zone enable to widely introduce the new species and varieties in the agricultural industry. As is known, citrus species and varieties have been imported from different countries. They were spread in different regions of our country and were cultivated on the small holdings as well as in the form of plantations. However, periodical severe winters and frosts cause great damage not only to individual crops, but to the whole plantations.

Citrus fruits are rich in vitamins, essential oils and other biologically active substances, and are widely used in the national economy. However, the complex agro-technical activities for protecting them against frosts are rather expensive and substantially increase the prime cost of products. It finally leads to reduction of the competitiveness of products and decreases the interest from both the population and farmers. All this has resulted in degradation of citrus breeding. Since one of the main objectives of agricultural development strategy is to introduce new crops and varieties and to develop the production chain, great importance is attached to search and selection of such crops that do not require the use of complex agro-technologies during their growth and cultivation, the protection against diseases and pests and return high yield, are rich in biologically active substances, and the obtained products are highly demanded on the local market and easily marketable especially in tourist and villa zones.

In this regard, we believe that lemongrass, which is spread in subtropical zone and is commercially cultivated in many countries worldwide (Vietnam, Thailand) as a lemon-substituting crop, is of much interest. Containing the biologically active substances, such as geraniol and citronellol, it is widely used in cooking, food industry, medicine, perfumery, and as an ornamental plant, a means of protection against insects.

Cymbopogon citratus is one of the most common varieties of lemongrass. This sort of lemongrass belongs to Poaceae (Gramineae) family, and it is a fast-growing perennial herbaceous plant with a height of 1-1,5 m, has bright-green long leaves with a length to 1m, straitens to the top and has the fibrous ends, and barely perceptible bright-purple flowers that are collected as racemes; its seed is circular-ellipsoidal in shape (Pic. 1).

Leaves and stems are rich in phytocides and essential oils (geraniol and citronellol), due to which the plant has pleasant citrus aroma. Leaves and stems are used in a rawform. Even after drying

they do not lose their useful properties. This a moisture- and heat-loving plant, that propagates from seeds and rooted cuttings, begins to grow at a temperature of 20⁰C, the feeding area is 1 m². It requires frequent watering, grows rapidly in slightly acidic and light clay soils; crops are harvested in September-October. Plant reproduces vegetatively and by seeds. (Pic.2, Pic.3).



Pic 1. Lemon sorghum



Pic.2, Pic.3 Vegetative Reproduction of Plant

In some European countries (Italy, Spain, Portugal and etc.) lemongrass is used as one of the reliable means for the biological fight against insects and mosquitoes. Today, when there is a danger to human health throughout the world caused by a newly-detected Zika virus, which is spread by *Aedes aegypti* mosquitoes, the cultivation of lemongrass crop for preventive purposes in the smallholdings and as a house plant is of high importance.

Lemongrass can be successfully introduced in the field of the development of ecological agriculture for producing environmentally friendly products, since pesticides and chemicals are not used in its tending-growing agro-technology. Essential oils obtained from the plant are quite expensive and are in great demand in the food industry as well as in perfumery and pharmacology.

Natural conditions and landscapes of West Georgia gives the possibility to widely spread lemongrass. Its cultivation is also possible in other regions of the Kolkheti lowland.

References

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