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## PROSPECTS FOR GROWING AND USING TARRAGON IN UKRAINE

Wormwood *Artemisia dracunculus* L. in Ukraine is better known as tarragon – a perennial plant from the *Asteraceae* family [1] up to 130 cm tall (fig.1).

Tarragon is very popular in the Caucasus and Central Asia. Spicy and aromatic forms of salad dressing are common in Ukraine and Moldova. The green mass of tarragon is used as a spice when salting cucumbers and tomatoes, when making marinades, sauerkraut. Young herbaceous shoots with leaves are used as food, Chinese and French dishes are seasoned with tarragon, especially poultry, rice and cooked fish [2]. It can be used in all spring salads, soups, sauces, meat, fish, vegetable, egg dishes, broths, poultry and mushroom dishes. In many countries, tarragon is widely used to prepare spicy vinegar, for which a few sprigs of fresh or dried tarragon are placed in a bottle of vinegar. In many countries, tarragon is used fresh. The most suitable for this are the very young tips of the shoots together with the leaves, which are also very rich in biologically active substances.

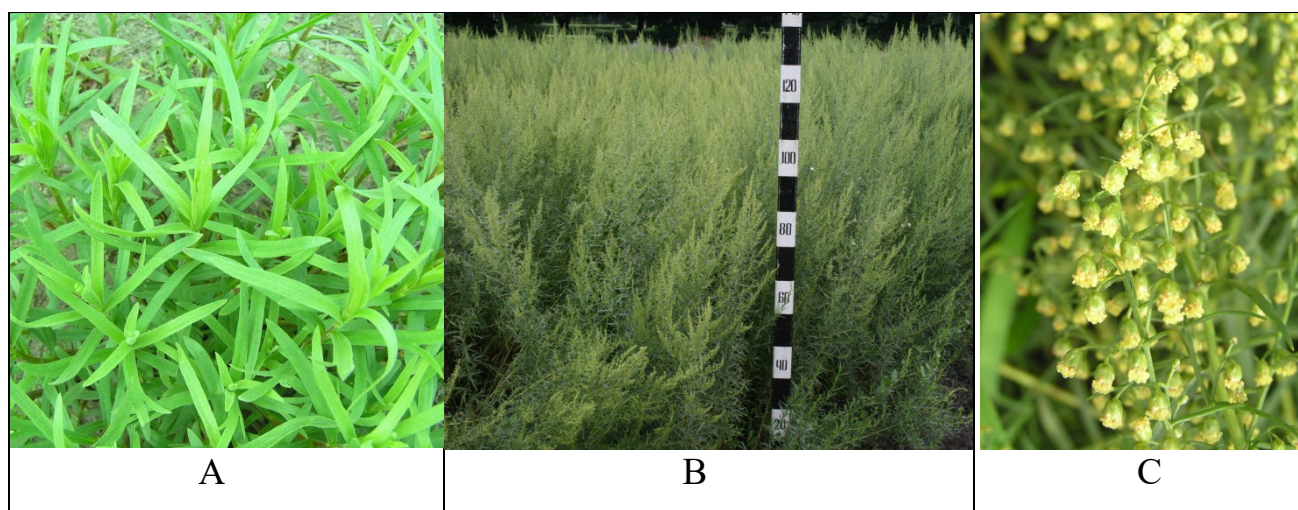


Fig. 1. Young plants with leaves –A, plants in flowering phase – B, inflorescences – C.

The development of scientific medicine is directly related to the deep study and use of active substances of plant origin. After all, almost 40% of drugs used in modern medicine are of plant origin. For certain groups of drugs [3], this figure reaches 80%. Antiseptic and bactericidal properties of spicy-aromatic plants were noted in canning. The essential oils included in their composition improve the

culinary qualities of products, stimulate the activity of the taste and digestive organs, increase appetite, increase the digestibility of food products, have a beneficial effect on metabolism, the activity of the nervous and cardiovascular systems.

In folk medicine, it has long been used as a strong anti-scurvy agent. Recently, it has attracted attention as a plant with a high content of carotene, which is necessary for the body, in particular for eye diseases. It is recommended as a diuretic and anthelmintic. Tarragon wormwood enhances the production of gastric juice, improves appetite, and normalizes the functions of endocrine glands [4].

We studied 2 varieties of tarragon of the NBS selection – ‘Aquamarine’ and ‘Sybiriak’ [5]. The plants were grown at the collection plots of NBS in 2022 – 2023. The ‘Aquamarine’ variety does not produce seeds every year, so the best method of its reproduction should be considered vegetative – parts of the bush, stem cuttings and root cuttings [6]. When sowing seeds in the soil in spring, seedlings appear in 15–19 days. In the first year of life, plants do not bloom. Stem and root cuttings are planted at the end of summer – at the beginning of autumn or spring (April–May). The distance between plants is 35–45 cm. Care consists in loosening the soil, weeding from weeds and watering. Tarragon can grow up to 15 years in one place. However, for use as a vegetable crop, it should be transplanted to a new place every 3–4 years. In the first year of life, tarragon is cut closer to autumn, so as not to cause depression of the young plant, while in subsequent years, the greens are cut from 4 to 6 times per season, when the shoots reach a height of 25–30 cm. The yield of tarragon was depended on the year of vegetation and number of cutting (table 1).

Table 1.

Yield of tarragon dependence on the year of vegetation and number of cutting, t/ha

Year	Cutting of plants		Total
	first	second	
2022	9,42	6,43	15,85

2023	10,8	11,0	21,9
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Tarragon contains vitamin C, rutin, essential oil, flavonoids, and coumarins. The maximum content of vitamin C in tarragon plants was noted during the spring growth period (more than 700 mg %), maximum content of essential oil – during flowering phase (0,276 % in terms of raw substance). The maximum amount of ascorbic acid is produced by the leaves, although it decreases during the growing season. Tarragon is dried quickly at a low temperature so that it did not lose its green color and aroma. The plant raw materials should be stored in paper or plastic bags in a dry, cool place.

When growing tarragon as a raw material for the canning industry and for obtaining essential oil, the herb must be harvested once in the flowering phase.

To use fresh tarragon, it is advisable to cut it several times during the season until the lower parts of the shoots have lignified. At this time, plants contain many essential oils and contain a significant amount of ascorbic acid.

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### **WEED COMMUNITY IN SOYBEAN CROPS**

Soy is an important crop because of its high yield and rich protein content. In addition, it is the main source of vegetable oil among all oil crops. The increase in soybean acreage from 24 to 102.4 million hectares shows the growing interest in this crop on a global scale. This may be due to the development of cultivation technologies, increased demand for soybeans as a feed and food crop, as well as the economic advantages of soybean cultivation compared to other crops.

Due to the expansion of soybean acreage and the importance of this crop to the agricultural sector, weed control is an important aspect of soybean cultivation. The presence of weeds can negatively affect the productivity and quality of soybeans. Effective weed control measures include the use of herbicides, selection of an appropriate soybean variety with greater weed competitiveness, and proper cultivation and care of the crops.

As a result of the conducted research, it was established that in the agrocenosis of soybeans there were the most annual weed species, they were represented by the following species: *Setaria glauca* L., *Chenopodium album* L., *Echinochloa crus-galli* L., *Amaranthus retroflexus* L., *Raphanus raphanistrum* L. and others. Of the perennial weed species *Sonchus arvensis* L., *Equisetum arvense*, *Elytrigia repens* and