

**WINTER PEAS ARE A NEW CROP FOR UKRAINIAN FARMERS  
(НОВА КУЛЬТУРА ДЛЯ УКРАЇНСЬКИХ АГРАРІЇВ – ГОРОХ ОЗИМИЙ)**

*Воронюк К. І. – здобувач вищої освіти групи АМП 2/1*

*Науковий керівник – Тішечкіна К. В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ*

*Два сезони українська агрономічна спільнота обговорює можливості озимого гороху – одні бачать у новинці перспективу, інші поки що виступають за традиційні озимі культури на полях. Метою цієї статті є вивчення особливостей ростових процесів і розвитку рослин гороху озимого, дослідження агротехніки гороху озимого.*

**Ключові слова:** *Горох озимий, сорт, гібридна популяція, селекція, врожайність, потенціал урожайності, насіння, попередник.*

*For two seasons now, the Ukrainian agronomic community has been discussing the possibilities of winter peas. Some see the novelty as a prospect, while others still favor traditional winter crops in the fields. The purpose of this article is to study the growth processes and development peculiarities of winter pea plants and research winter pea agricultural technology, with a focus on the NS Moroz variety.*

**Keywords:** *Winter peas, variety, hybrid population, selection, yield, yield potential, content, predecessor.*

As a potential agronomist, I am interested in studying new varieties that will have great prospects for the agriculture of Ukraine in the future.

Winter peas are a relatively new crop in Ukraine, with few producers having enough information about its key advantages and peculiarities of cultivation in the Mykolaiv region [3]. The same agrarians who were among the first to risk sowing winter peas see it as a promising new crop that, with a successful approach, can compete with traditional winter crops.

Today, several dozen farms in Ukraine already have practical experience in growing this legume crop; however, the development of technology elements is still ongoing.

The NS Moroz variety, which I will be researching, was tested in the conditions of the educational-scientific-practical center of the Mykolaiv National Agrarian University and confirmed the value of peas as a high-protein crop, as well as a universal predecessor that vacates the field early and accumulates nitrogen in the soil. This new niche in the market has the advantage of developing using winter moisture even before the onset of summer drought. The yield potential of the NS Moroz variety is 2–3 times higher than that of spring peas because it has a well-developed root system that reaches a depth of about 10 cm after overwintering, while spring peas usually begin to sow during this period.

NS Moroz is a winter sowing pea variety created by Serbian breeders, with the Institute of Agriculture and Horticulture in Novi Sad as the originator. It is a winter variety of protein pea, intended directly for seed production. The variety was created by the pedigree method, that is, the selection from a hybrid population. The variety is ultra-early and evenly ripe, good and tolerates low temperatures, at the level of winter wheat, resistant to low temperatures in the conditions of Ukraine. A plant of limited growth, 60-80 cm tall, with frequent knots in the lower part of the stem, which allows the culture to lie down less. It has a hairy leaf that allows attachment in the early stages of growth and development so that the seeds do not germinate before harvest itself.

The NS Moroz variety has several main economic and biological characteristics, including very early ripening, limited growth (height 60-80 cm), average grain yield 4.5-6.0 t/ha [5], a mass of a thousand seeds of 180-200 g, average protein content of 23-25%, concentration of nodes in the lower part of the trunk, branched plants with an average of two stems that bear pods and seeds, afilea (whisker) leaf type, white flowers, and pods located mainly in the upper part of the stem (12-16 pcs. per plant) [1].

All modern conditions are practiced in the agricultural production of the NNPC of the Ukrainian National Academy of Sciences, and crop yield and efficiency applied agrotechnical techniques mainly depend on the variety and the quality of planted seeds. Every year, the economy determines the need for seed material, and variety change and renewal are promptly carried out with seed material [2]. The NS Moroz variety has excellent prospects for further cultivation in this economy.

Growing peas from seed is economically beneficial, as they are a valuable predecessor crop for most agricultural crops and a valuable fodder for livestock [4].

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