

INFLUENCE OF ELEMENTS OF CULTIVATION TECHNOLOGY ON THE FORMATION OF PRODUCTIVITY OF SUNFLOWER HYBRIDS

V.V. BORYSENKO, candidate of agricultural sciences,

A.A. YAREMCHUK, master of faculty of agronomy

Uman National University of Horticulture

Sunflower is the main oil crop in Ukraine. The seeds of its zoned varieties and hybrids contain 50–52% of oil, and the seeds of selected varieties contain up to 60%. Sunflower oil is widely used as a food product in its natural form. Its nutritional value is determined by the high content of polyunsaturated fatty linoleic acid of 55–60%, which accelerates the metabolism of cholesterol esters in the body, which has a positive effect on health. Sunflower has great fodder value. The cake obtained during seed processing contains 20–35% proteins and is considered a fairly good concentrated feed for animals, especially for dairy cattle.

The average yield of sunflower in Ukraine in recent years is at a low level and is 16–18 t/ha. There are several reasons for this phenomenon: violation of crop rotation and cultivation technology, lack of sufficient amount of material resources, low quality of seeds, etc. One of the important factors of modern technology is that not ordinary sunflower seeds are used for sowing, but new varieties and hybrids with improved characteristics.

Among agrotechnical measures aimed at increasing the yield of sunflower, an important place is the choice of the optimal method of sowing and the rate of sowing seeds, which are related to the area of plant nutrition and its configuration. The norm of sunflower sowing is the density of plants per unit area, i.e. the number of sunflowers per hectare. The rate of sowing depends on many individual parameters. It is important to take into account the quality of the soil, the average humidity characteristic of the area, the characteristics of the variety or hybrid, etc. With traditional cultivation technology with a plant density of 45–50 thousand plants/ha, hybrids do not realize their productivity potential.

Researches of recent years, conducted in the central, eastern and southern forest-steppe of Ukraine, indicate the feasibility of growing sunflower hybrids with 45 and 70 cm row width at increased plant density. The density of plants directly affects such indicators as the weight of 1000 pcs. of seeds, weight of seeds from one inflorescence and total productivity of plants.

However, the limits of optimal thickening are determined by specific natural and climatic conditions, ecological and biological characteristics of hybrids, etc. The influence of the method of sowing and the rate of sowing of sunflower on the quality indicators of the crop and its structure, consumption of elements of mineral nutrition and moisture remains insufficiently studied. This prompts us to study the reaction of domestic hybrids to thickening in the conditions of the southern part of the Right Bank Forest Steppe.