

INFLUENCE OF THE METHOD OF SOWING, RATE OF SEEDING AND LEVEL OF MINERAL NUTRITION ON PRODUCTIVITY OF LOVE-LIES- BLEEDING

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Annotation. The publication presents the results of research on the development of elements of the technology of growing of love-lies-bleeding (*Amaranthus paniculatus*) in the conditions of the northern Steppe of Ukraine. At growing of love-lies-bleeding for grain, the most productive were the wide-row (45 cm) sowings with the seeding rate 1,0 kg/ha, the grain yield was 1,77 tons/ha with actual plant density 593 thousand/ha. Application of complete mineral fertilizer ($N_{90}P_{90}K_{30}$) provided an increase in the yield of love-lies-bleeding 0,42 t/ha compared with the control (without fertilizers). With this dose of fertilizer, the carry-over of nitrogen by plants to form 1 ton of grain was 20,6 kg, and that of phosphorus and potassium was 13,2 and 5,6 kg, respectively. The highest yield of green mass (42,38 t/ha), collection of feed units (6,89 t/ha) and digestible protein (0,67 t/ha) with once cut use of sowing were obtained at companion growing of agrophytocenoses of love-lies-bleeding and maize. In total for two hay cutting (main and late) the highest yield of green mass (50,10 t/ha), the collection of feed units (8,41 t/ha) and digestible protein (0,89 t/ha) provided the companion sowing of love-lies-bleeding with sudan-grass hybrid.

Keywords: love-lies-bleeding, method of sowing, seeding rate, mineral fertilizers, companion agrophytocenoses, productivity.

