Annotation

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Forming vegetative mass and yield of cucumber on a vertical trellis

Cucumber is one of the most popular vegetable crops in Ukraine. Technology of growing cucumbers on a trellis with drip irrigation is becoming wide-spread in conditions of low-lying area of Transcarpathia among farmers and private farms of Vynohradiv, Uzhhorod and Beregovo districts. The aim of research was the selection of high-yielding cucumber hybrids adapted to these soil and climatic conditions using drip irrigation. The main objectives of studies were monitoring the growth and development of plants, studying and comparison of total yield, marketability and fruit quality. The objects of research were cucumber hybrids: Justina F1, Satina F1, Platina F1 and Crispina F1 (control). Some biometric characteristics of cucumber plants at the beginning of the fruiting phase which were significantly different due to different rates of forming plants during the growing season were determined; leaf area at the beginning and end of fruiting phase which characterizes photosynthetic capacity of plants; total and marketable yield and biochemical composition of fruits of studied hybrids. The average yield of three-year studies on the variant with Platina F1 hybrid was 51.6 t/ha and is 19.6% higher than the control; marketable yield – 42.1 t/ha that was 8.3 t/ha higher than the control. Justina F1 hybrid gave high growth of yield relative to the control (10.9%). During the experiment the smallest yield both general (35.3 t/ha) and marketable one (29.3 t/ha) was obtained from Satina F1 hybrid. Thus, Platina F1 hybrid is selected as the most productive one with high output of total and marketable yield, excellent taste qualities and higher content of dry matter, sugars and ascorbic acid. It is recommended to grow this hybrid in the conditions of low-lying area of Transcarpathia.

Key words: *cucumber, hybrid, vertical trellis, biometric characteristics, yield, marketability.*