## UDC 634.75:631.544.4

The application of plant growth regulators within the technologies for strawberry (Fragaria × ananassa Duch.) cultivation in greenhouse conditions

## E.Kh. Abselyamova, F.V. Sylaieva

National University of Life and Environmental Protection of Ukraine

The increasing of strawberry output may be achieved by using of new varieties, which fruiting throughout of all vegetative period (for example the variety Albion). At the same time to obtain a high yield is possible by using a new technologies. These technologies include application of plant growth regulators.

The aim of our research was investigation of a formation vegetative and generative organs and as a well as yield and berry quality for variety Albion under hydroponic in unheated plastic-covered green-houses.

The spraying of plant was fulfilled before of flavoring phase by bioregulators Epin<sup>TM</sup>, Emistim S with varial concentrations and with clear water as control. Phytometer measurements, biochemical analyses and counts of yield components were fulfilled along of vegetation period phenological observations.

The spraying with growth regulators provided a substantially increased number of vegetative organs. Our results shows that, under the effect  $\text{Epin}^{\text{TM}}$  (with concentration 0,04%) the number of spurs increased on 150, leaves – on 56, stems – on 20, flowers – on 91% compared to control. As to effect of Emistim S (with concentration 0,02%) – on 150, 56, 20 and 76%, respectively, with provided increased quantity and quality of berry production.

The yield of strawberry changed after processing with plant growth regulators. The greatest yield was obtained for  $\text{Epin}^{\text{TM}}$  1.089 kg/per 1 bush and for Emistim S – 0.965 kg/per 1 bush. Increased yield in all variants of the experiments was collected due to increased number of leaves, spurs, stems, flowers and berries per bush, as well as the average weight per berry. The plant growth regulators being studied increase the dry soluble substance content on 5–49%, sugars – on 6–30%.

We propose to use Epin<sup>TM</sup> and Emistim S in technologies of growing of strawberry plants.