



INFLUENCE OF THE INSECTICIDES ON CYTOGENETIC STABLE OF WHEAT GENOME

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Widely use of insecticides in agriculture led to great necessity of learning of their influence on cytogenetic stability of plants, human being and animals, because chemical substances became the main reason of mutagenous activity.

Nowadays wide use of insecticide Mospilan became the object of our investigation because of its mutagenous activity. This activity was determined on a sort of soft wheat Fantaziya odesskaiya, by means of anaphase method. The seeds were germinated by standard method. Tips of rootlets were fixed in 45% vinegar acid. Then, we made hot hydrolysis in 1 N HCL, and after that rootlets were painted. Seeds were germinated on usual water in control. Normal solution of insecticide was solute in two variants (1:2, 1:4). In each variant we accounted 100 cells. The main type of aberrations was making of single chromosome bridges in anaphase. The main part of cells with aberrations was 13,0+3,4 % in control. It was 27,0+4,4 % in variant 1:4. Quantity of cells with aberrations was rising to 41,0+4,9 % in variant 1:2. Differences between variants of experiment and variants and control are trustworthy when $P < 0,05$ (differences between control and variant 1:2 are trustworthy when $P < 0,01$).

So, we can see direct dependence between insecticide concentration and quantity of appearing of chromosome aberrations. Consequently, to avoid appearance of chromosome aberration in somatic cells of workers we have to observe prevention of accidents during of working with insecticides. Besides, it is important to explore plants for finding critic studies when their sporofication can be sensitive to insecticides mutagenic influence.

ВЛИЯНИЕ ИНСЕКТИЦИДА НА ЦИТОГЕНЕТИЧЕСКУЮ СТАБИЛЬНОСТЬ ГЕНОМА ПШЕНИЦЫ

Веревкина Т.Е.

При помощи анафазного теста на мягкой пшенице фантазия одесская установлено мутагенное действие инсектицида Моспилан (действующее вещество ацетамиприд). Частота возникновения хромосомных aberrаций оказалась прямо пропорциональна концентрации инсектицида.

***Supervisor A.L. Sechnyak**