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STUDIES ON THE ETHYL METHANE SULPHONATE (EMS) INDUCED DESYNAPSIS IN CORIANDRUM SATIVUM L.

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The present work was carried out to study the effect of Ethyl Methane Sulphonate (EMS) treatment on microsporangogenesis and pollen fertility in Coriandrum sativum L. For this purpose, the seeds were treated with three serial doses of EMS viz. 0.1, 0.3 and 0.5 % and sown in triplicate to raise the M₁ generation. Control was also maintained separately for each set. During the investigation of different meiotic phases, PMCs with desynaptic chromosomes were observed in plants treated with 0.3 and 0.5 % solutions of EMS. Besides the desynaptic univalent chromosome, other various types of chromosomal aberration were also observed in different phases of meiosis such as laggards, unequal separation and bridges with abnormal post meiotic products.

Key words: *Coriandrum sativum L., desynaptic, ethyl methane sulphonate, pollen fertility, synaptic.*

ДОСЛІДЖЕННЯ ДЕСИНАПСИСУ,
ВИКЛИКАНОГО ЕТИЛМЕТАНСУЛЬФОНАТОМ
(EMS) У *CORIANDRUM SATIVUM L.*

Мета цього дослідження полягала у вивченні впливу обробки етилметансульфонатом (EMS) на мікроспорогенез і фертильність пилку *Coriandrum sativum L.* З цією метою насіння обробляли трьома послідовними дозами EMS: 0.1, 0.3 і 0.5 % і висівали його у трьох повторях для отримання покоління M₁. Також окремо забезпечували контроль для кожного набору. Під час дослідження різних фаз мейозу у рослин, оброблених 0,3 і 0,5 % розчинами EMS, спостерігали материнські клітини пилку (PMC) з десинаптичними хромосомами. Окрім десинаптичних унівалентів, у різних фазах мейозу

також спостерігали різні інші типи хромосомних аберацій, такі як лаггарди, нерівномірний поділ та мости з аномальними постмейотичними продуктами.

Ключові слова: *Coriandrum sativum L., десинаптичний, етилметансульфонат, фертильність пилку, синнаптичний.*

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