

The insecticides: summethion, lannate, carbicron, thiodan and kelthane, the fungicides: diathane M-45 and aldrin and the herbicides: ramrod, lasso, round up and gramoxone induce acute mitostatic effects of *Vicia faba* root meristematic cells. Pycnotic nuclei and premature chromosome condensation are also evident. Also carbicron, kelthane, lasso and ramrod induce anaphase bridges accompanied by relatively scarce micronuclei. The results suggest possible genetic damage by these chemicals.