

**COMPARISON OF THE MITOSIS MODIFYING ACTIVITY
OF INFUSION PLANTS CONTAINING ESSENTIAL OILS
OF LAMIACEAE**

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The comparative evaluation of the studied extracts of *Thymus serpyllum*, *Nepeta cataria* and *Melissa officinalis* showed that all extracts caused an inverse relationship between root growth and mitotic index from concentration. The original infusion of *Thymus serpyllum* inhibited mitosis compared with positive control. Infusion at a dilution *Thymus serpyllum* of 1:8 slightly stimulated cell division compared with the negative control. Infusion at dilutions of 1:1, 1:2, 1:4 statistically significantly reduced the mitotic activity of the cells relative to the negative control, but did not inhibited mitosis, just like dioxidine in the positive control. In the experiment, the original infusion *Nepeta cataria* and all its dilutions inhibited the mitotic activity of the cells relative to the negative control. The original infusion of *Melissa officinalis* and its dilution 1:1, 1:2 inhibited mitosis relative to the negative control. At dilutions of 1: 4 and 1: 8, the infusion showed no statistically significant change in the mitotic index relative to the negative control. In contrast to infusion *Thymus serpyllum*, infusion *Nepeta cataria* reduced the mitotic activity of the cells relative to the negative control in all experimental groups (initial infusion and at all dilutions (1: 1, 1: 2, 1: 4, 1: 8), therefore, probably, the infusion *Nepeta cataria* has high mitosis-inhibiting properties regarding thyme.

Key words: *Thymus serpyllum*, *Nepeta cataria*, *Melissa officinalis*, effect on mitosis, Allium test.

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