

# LABORATORY OF PLANT CYTOGENETICS

Use of Allium test for purpose of establishing quality of waters, 2010

PRIVATE LABORATORY  
OF PLANT CYTOGENETICS



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## Test report for Flaška

Use of genotoxicity ALLIUM anaphase-telophase genotoxicity assay  
with common onion (Allium cepa L.) grown in taken water samples (INVITTOX: PROTOCOL No.8; IP – 8 ©: Fiskesjö 1989;  
Rank 2003 and ALLIUM metaphase genotoxicity assay: Firbas 2004, 2006, 2010)

*Cytogenetics research termin: 25.6. – 28.6.2011*

Sample	Duration of sample plants cultivation	Number of metaphase cells	Number of metaphase cells with chromosome aberrations	Genotoxicity level (%)	Average root length (mm)
I	72	200	40	20,0*	32
II	72	200	22	11,0*	35
III	72	200	5	2,5	40
IV	72	100	21	21,0	22

- I. Waterworks water; Muretinci 14, SI – 2272 Gorišnica
- II. Treated waterworks water with GLASS FLAŠKA 0,33
- III. Negative control (tap water filtered through R. O. – Reverse Osmossi)
- IV. Positive control (1 mg/L or 1 ppm methane-methyl-sulphamide – MMS 4016, SIGMA)

### GENERAL CONCLUSIONS

Following the results of general toxicity (chlorine, heavy metals, pesticides etc.) and genotoxicity level between positive and negative control treated tap water (orig. GLASS FLAŠKA 0,33) has a lower genotoxicity level than ordinary tap water.

Raziskave v rastlinski aplikativni citogenetiki  
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