Institute of Environmental Engineering and Natural Science: Suggested topics for thesis

Title of thesis

1. Effects of moisture, temperature, and biological activity on the biodegradation of pesticide in soil.
2. Effect of soil acidification on some microbiological processes of soil in a short-term fertilization experiment
3. Ecological effect of pesticide on soil microbe.
4. Side-effect of different pesticides on Rhizobium strains.
5. Growth of on Rhizobium and their symbiosis with host plant affected by some pesticides.
6. Effects of pesticide on enzyme activities in the soil ecosystem
7. Side-effects of fungicides and copper on soil microbial population.
8. Effect of fungicides on the microorganisms in the rhizosphere of common beans and maize.
9. Effects of the some fungicides on soil microbial activities
10. Toxic-effects of acetochlor, 2,4-D and their combination on bacterial amount and population richness in agricultural soils
11. Effects of the some herbicides on soil microbial activities
12. Impact of some herbicides on the growth of microscopic fungi and microbial processes in soil.
13. Effect of some herbicide combinations on rhizosphere microflora of sunflower.
14. The influence of herbicides on the development of soil microorganisms in various types of soil.
15. Side-effect of herbicides applied in maize culture on the dynamics of some soil microbial groups and soil enzyme activity.
16. Effect of herbicides on the microorganisms in the rhizosphere of common beans and maize.
17. Effect of insecticides on the microorganisms in the rhizosphere of common beans and maize.
18. Effects of the some insecticides on soil microbial activities
19. Estimation of soil microbial C biomass by a fumigation-extraction method: use on soils of high organic matter content, and a reassessment of the kEC-factor.
20. Mineralization and immobilization of C in fumigated soil and the measurement of microbial biomass C.
21. Estimation of soil microbial N biomass by a fumigation-extraction method: use on soils of high organic matter content, and a reassessment of the kEC-factor.
22. Mineralization and immobilization of N in fumigated soil and the measurement of microbial biomass N.
23. Estimation of soil microbial P biomass by a fumigation-extraction method: use on soils of high organic matter content, and a reassessment of the kEC-factor.
24. Mineralization and immobilization of P in fumigated soil and the measurement of microbial biomass P.
25. Estimation of soil microbial S biomass by a fumigation-extraction method: use on soils of high organic matter content, and a reassessment of the kEC-factor.

26. Mineralization and immobilization of sulphur in fumigated soil and the measurement of microbial biomass S.

Thesis topic suggestions - Ágnes Bálint

1. Examination of the nitrate content of various vegetables
2. Examination of the nitrate content of different fruits
3. Examination of soil nutrient content
4. Nitrogen cycle modeling with reaction kinetics
5. Examination of airborne dust with moss indication
6. Effect of organic contaminants on vitamin C content of plants by pot experiment
7. Effect of inorganic contaminants on vitamin C content in plants by culture vessel experiments