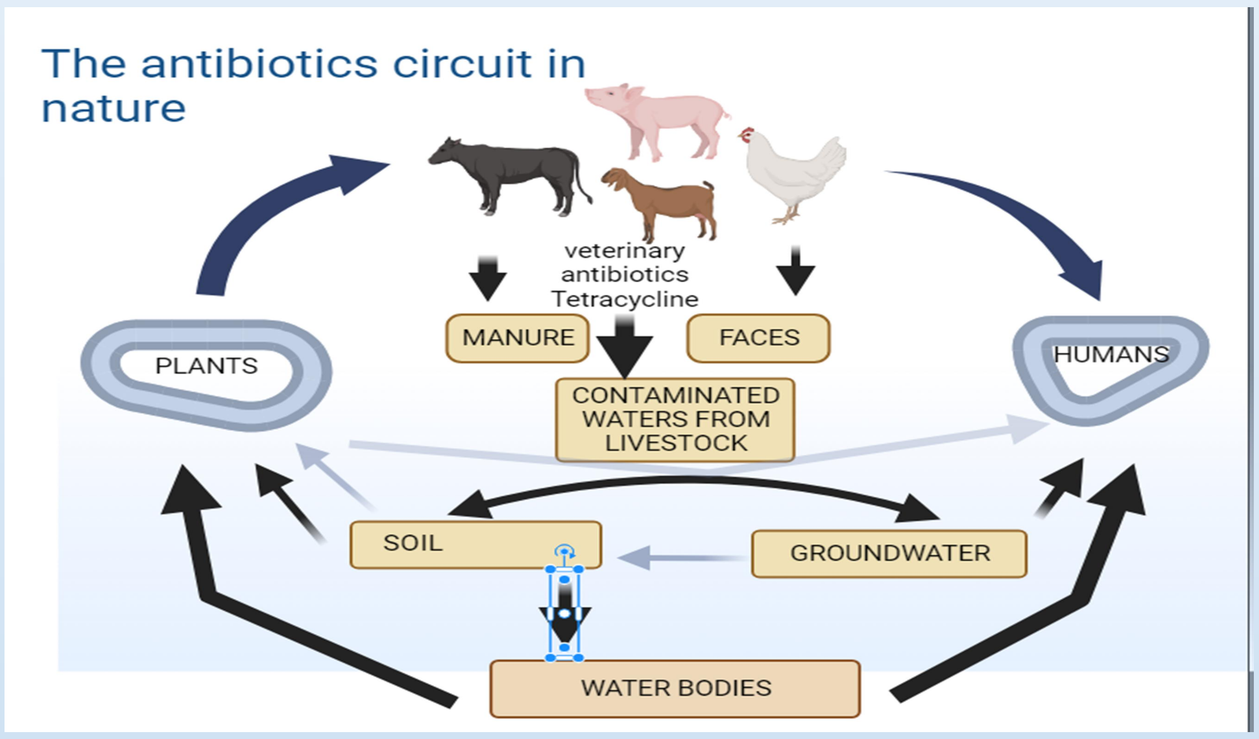
EVALUATION OF THE TETRACYCLINE EFFECTS ON THE AROMATIC PLANTS WITH ANTIMICROBIAL EFFECT

Laura Novac#, Anca Harabagiu#., Ana Fulgheci, Dragos Radulescu, Alina Banciu, Daniel Rudaru, Emanuel Mighiu, Catalina Stoica, Stefania Gheorghe, Irina Lucaciu, Mihai Nita-Lazar*

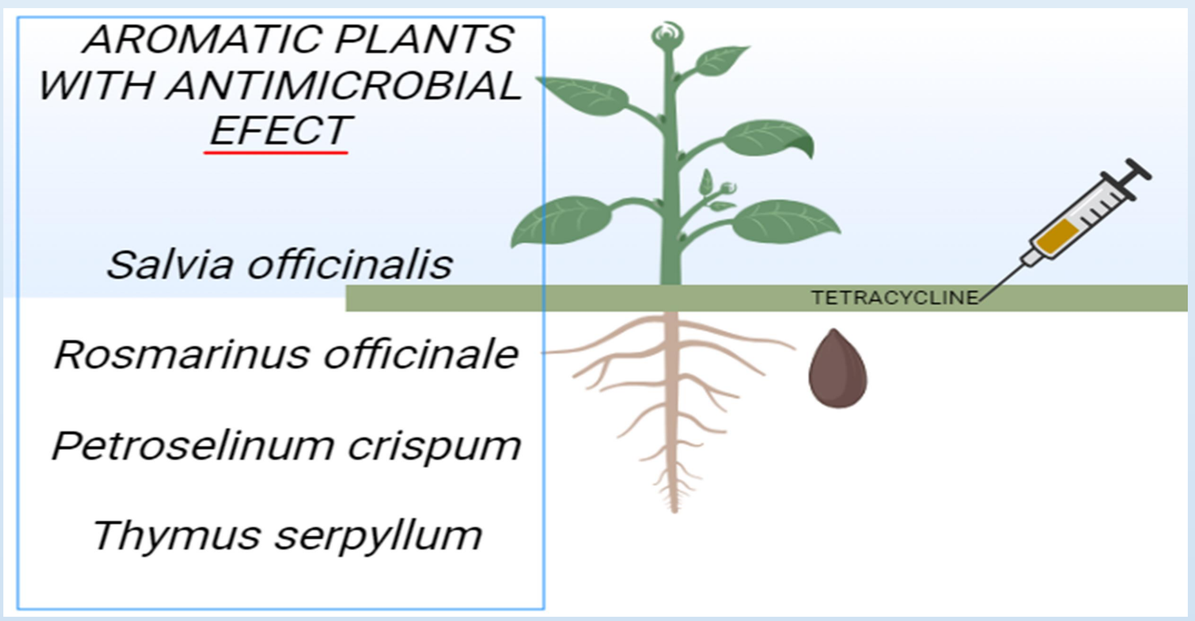
National Research and Development Institute for Industrial Ecology ECOIND, 71-73, DrumulPodu Dambovitei Str., Bucharest, Romania, email addreess: laura.novac@ecoind.ro

Introduction



Materials and methods

- SOIL
- SEEDS
- TETRACYCLINE- 0,6; 1,2 mg/L



Results and Conclusions

Species	**Concentration** mg/L	**Germination rate%, day 5**	**Germination rate% - day 20,** % control (1)	**Root growth day 20 (mean), mm** control (2)
Rosmarinus officinale	0.6	60	80	4.78
	1.2	50	60	4.45
Salvia officinalis	0.6	80	90	7.94
	1.2	70	70	7.55
Petroselinum crispum	0.6	50	60	7.25
	1.2	40	40	7.04
Thymus serpyllum	0.6	50	70	5.00
	1.2	40	50	4.80

The highest germination rate is recorded by 1. **sage** (*Salvia officinalis),*

2. **rosemary** *(Rosmarinus officinale)*

3. **thyme** *(Thymus serpyllum)*

4. **parsley** (*Petroselinum crispum)*

Higher concentrations of tetracycline → stronger negative impact on → germination rate → root growth

Prolonged exposure to tetracycline appears to exacerbate the negative effects on root growth.

Acknowledgments

This work was carried out through the “Nucleu” Program within the National Research Development and Innovation Plan 2022-2027 with the support of Romanian Ministry of Research, Innovation and Digitalization, contract no. 3N/2022, Project code *PN 23 22 02 01*.