Toxicity of copper in plants

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Team 11

Background

1, Copper(**Cu**) is used as an antibacterial materials.
It means Cu has negative effect for plants.

→ we want to reduce toxicity of Cu in plants.

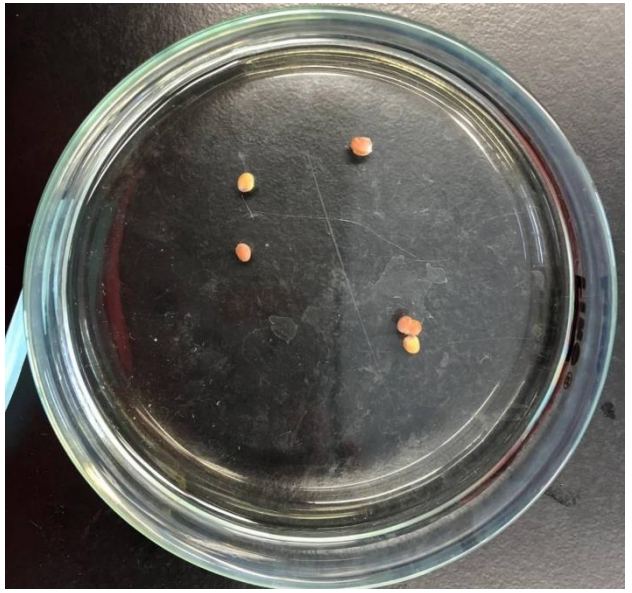
2, ▪ Some people think silver(**Ag**) can be inactivated by Sodium Chloride(**NaCl**).
▪ Ag ion and Cu ion have similar antibacterial structure.

→ we think Cu will have the same result.

Experiment

Material

- H_2O
- Radish （Seed）
- NaCl solution
- $CuSO_4$ Solution



The conditions of an experiment.

Method

1 We took 10ml of each H_2O and $CuSO_4$ solution in separate petri dishes.

2 We added 30,40,50,60,80,100mmol NaCl solution in $CuSO_4$ solution.

3 We covered them with aluminum foil to protect from the sun.

4 We observed them for 1 week.

Result & Conclusion

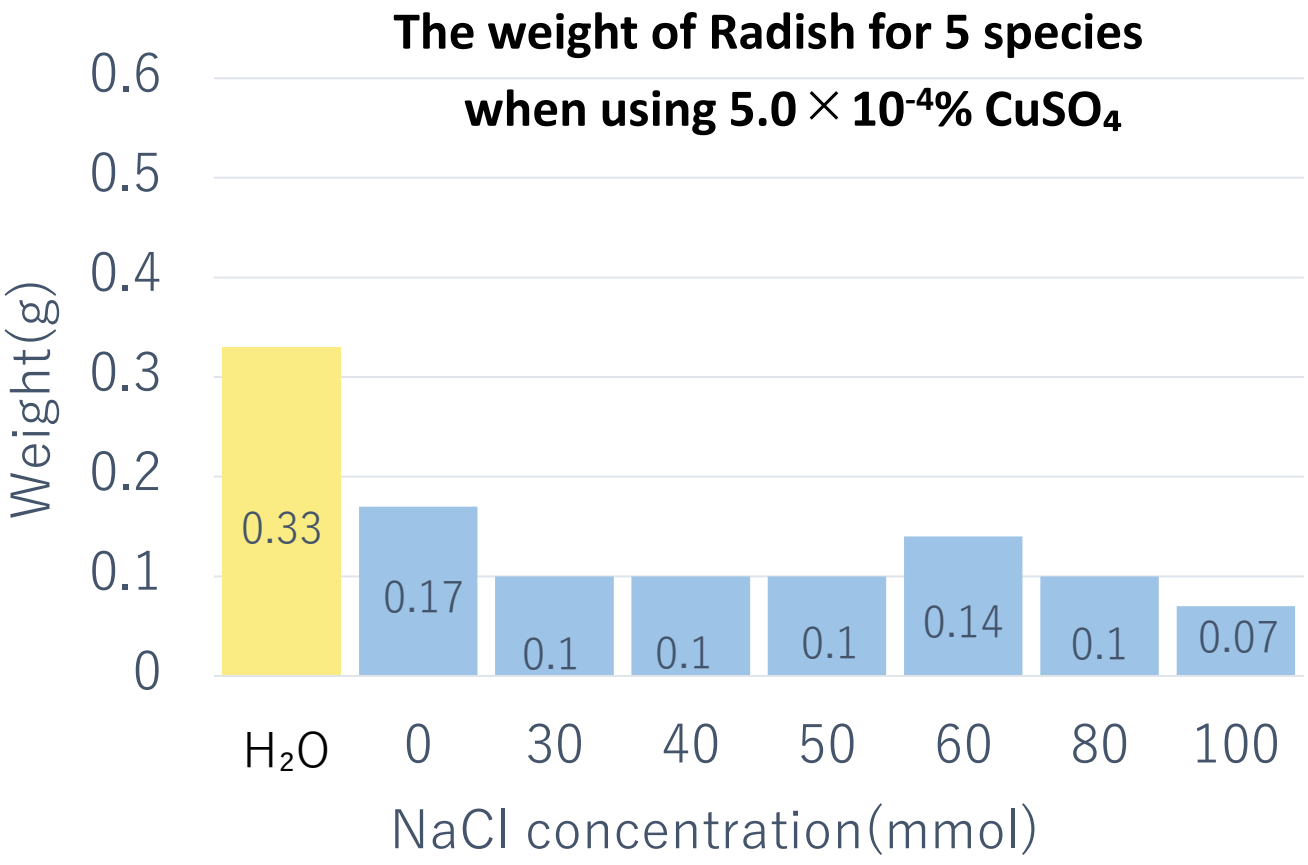


Figure1

○When using $CuSO_4$ (5.0×10^{-4} %)

the plant didn‘t grow more than using H_2O

Nacl effect was too great.

Result & Conclusion

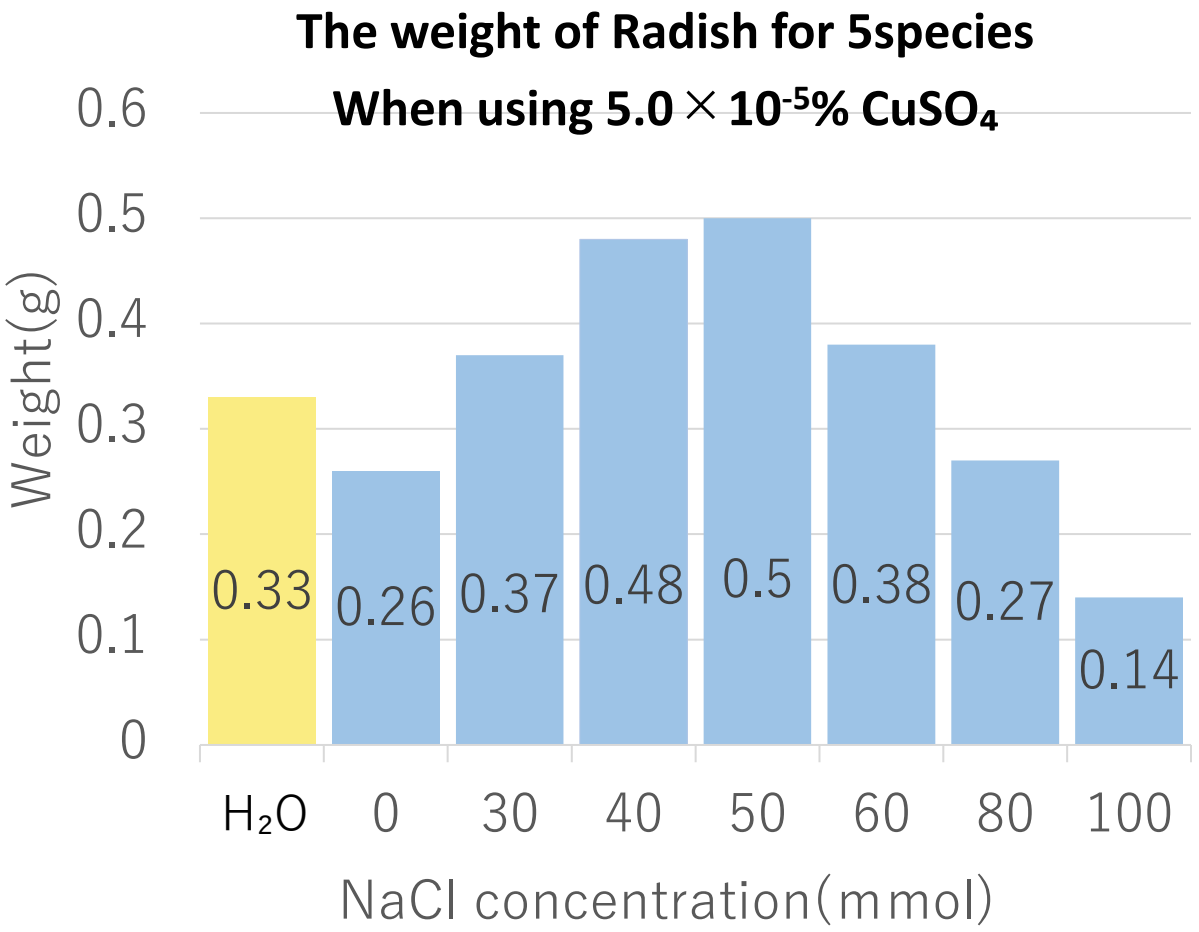


Figure2

○When using $CuSO_4$ (5.0×10^{-5}%)

Heavier than others when using 40mmol,50mmol NaCl.

The concentration of NaCl and $CuSO_4$ that plants can grow well.

Future work

We want to check

- the concentration of NaCl and $CuSO_4$ in which plants can grow more easily.
- the role of NaCl in plant growth.
- the regularity of results.

Thank you for listening！