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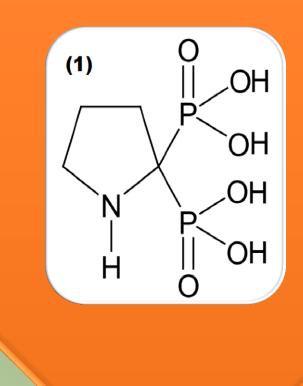




Effect of (pyrrolidine-2,2-diyl)bisphosphonic acid on <u>Raphanus sativus</u> and <u>Trifolium repens</u>: first observations

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Linear biphosphonic acid have already been reported to have herbicidal properties. The purpose of these preliminary tests was to verify the effect on radish and clover plants of the (pyrrolidine-2,2-diyl)bisphosphonic (1) acid, having a nitrogenic cycle.

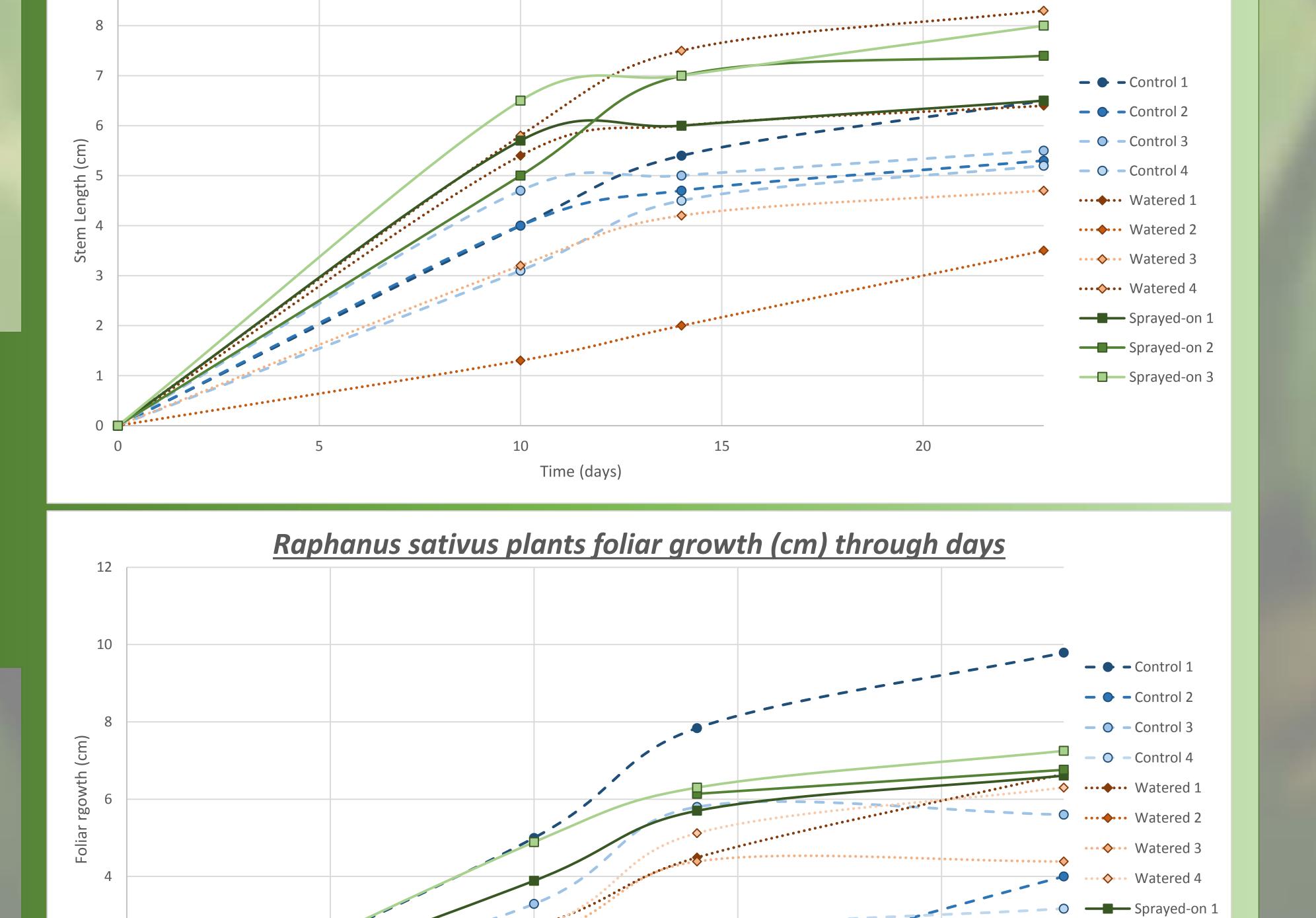


Here is a picture of a <u>Trefolium</u> <u>repens</u> pot where the specimens have only been watered with tap water. Most of pots present 5 specimens.



This is a picture of another <u>Trefolium repens</u> specimens one day after watering with (1). On the right it can observed a dead stem and on the left a dying one. On the bottom specimen we can observe ripples on the leaves.

On the other hand, Raphanus sativus showed different results. Overall the growth of stems and the average foliar surface were higher for sprayed specimens.



Time (days)

Raphanus sativus plants stem growth (cm) through days

In conclusion it seems that spraying the product over the leaves and watering the soil with tap water have more effect, than just applying the product in the soil.

(1) seems to have a fertilizing effect on Raphanus sativus but a herbicidal one on Trifolium repens.