

# Essential oils against *Phytophthora infestans* : Experimental methodology towards the prevention of potato late blight disease

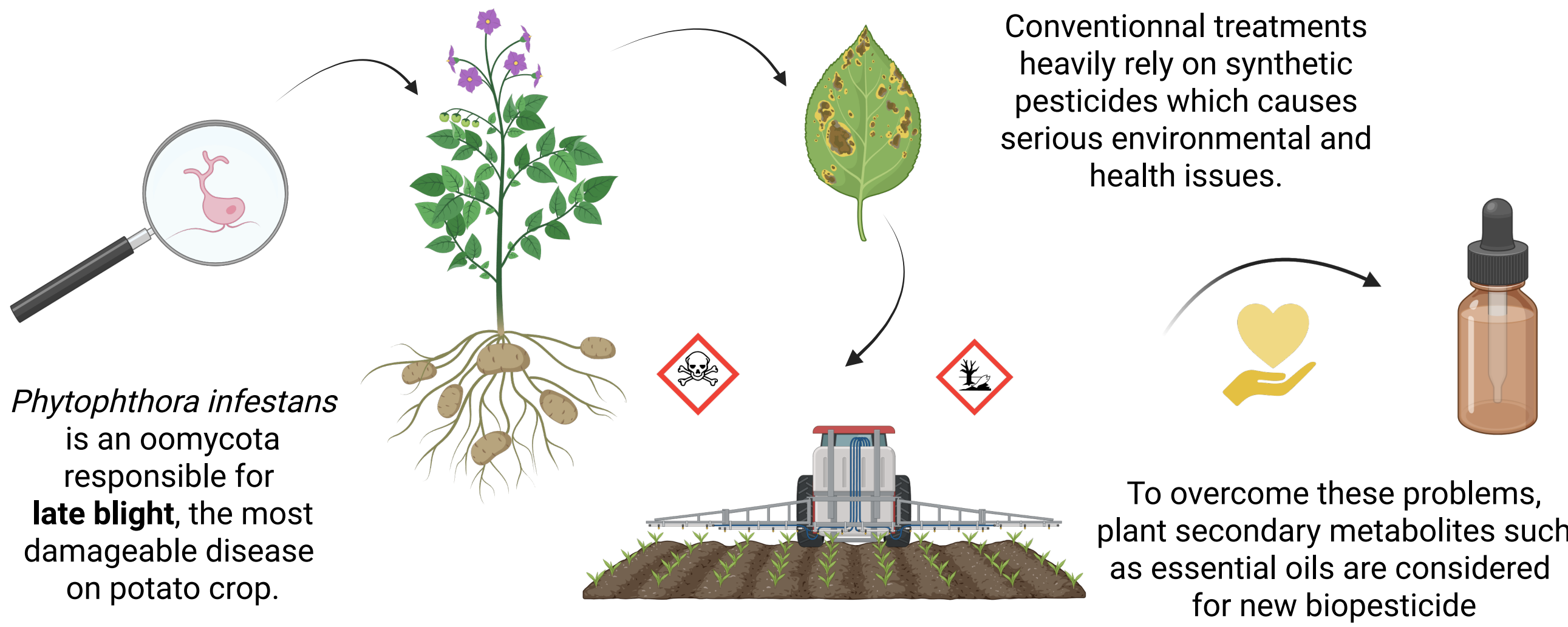
It's me!



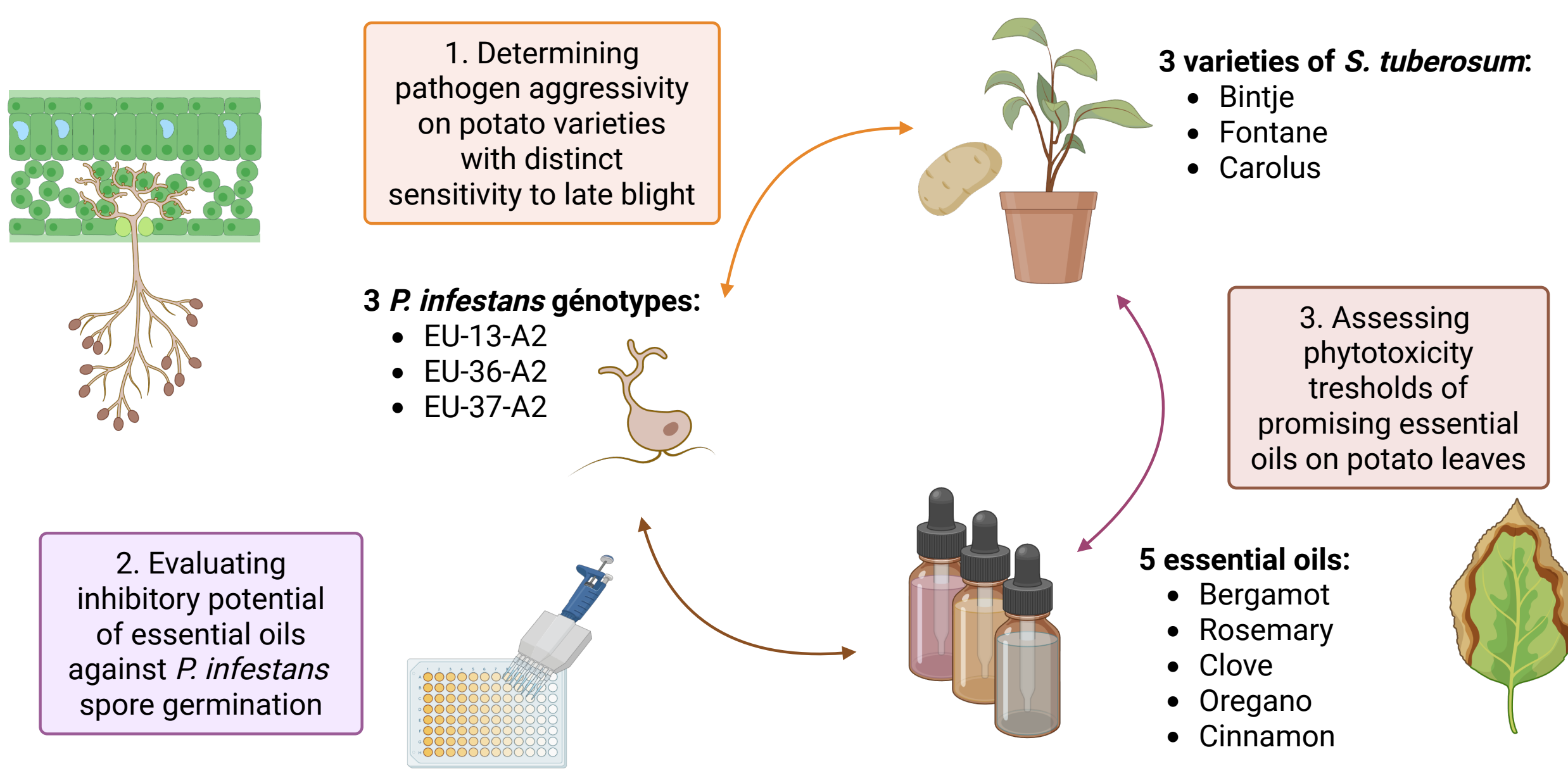
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UMRt BioEcoAgro 1158 - Gembloux Agro-Bio Tech, ULiège, Belgium - JUNIA, Lille & UPJV, Amiens, France : "Specialized metabolites of plant origin" team

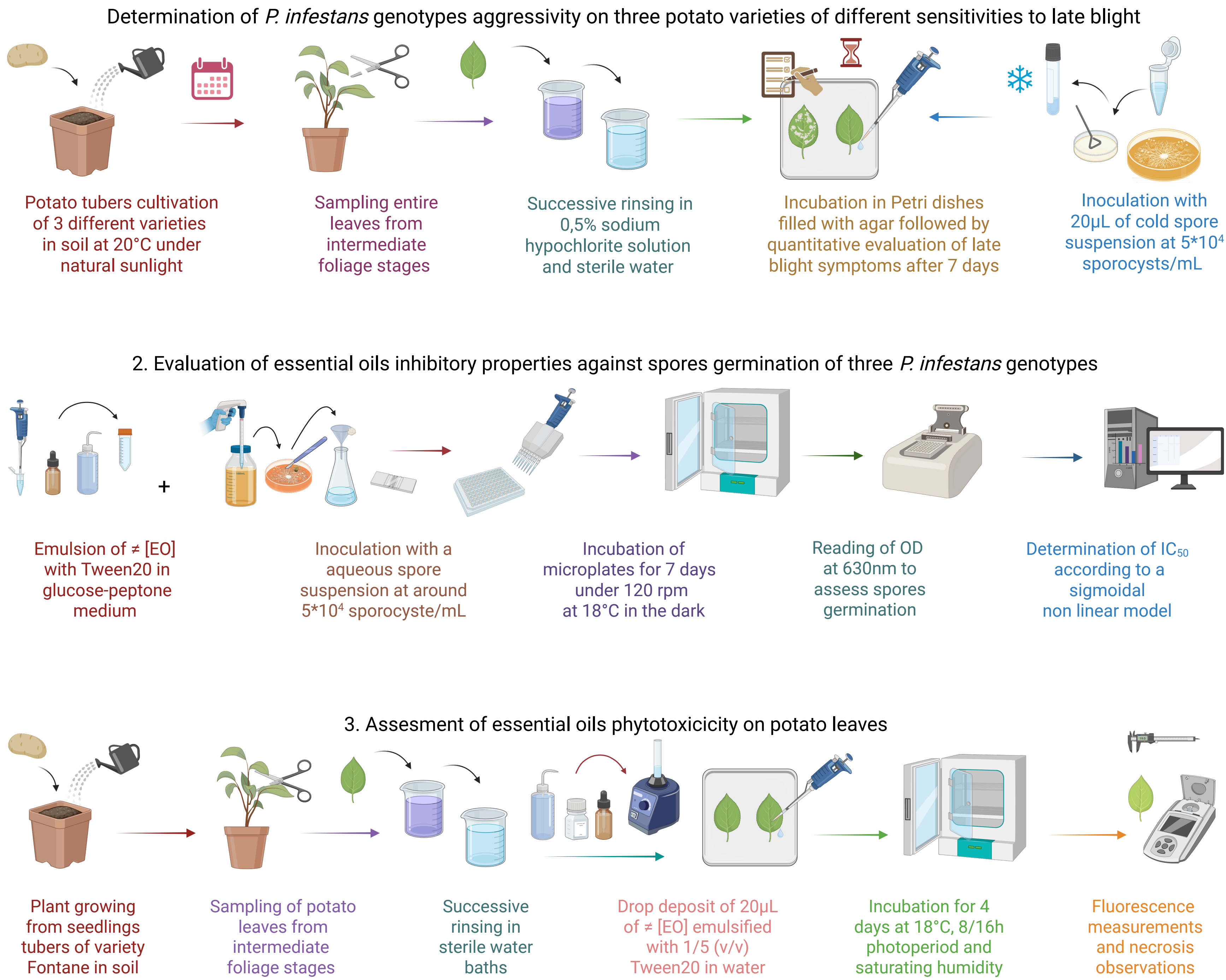
## INTRODUCTION



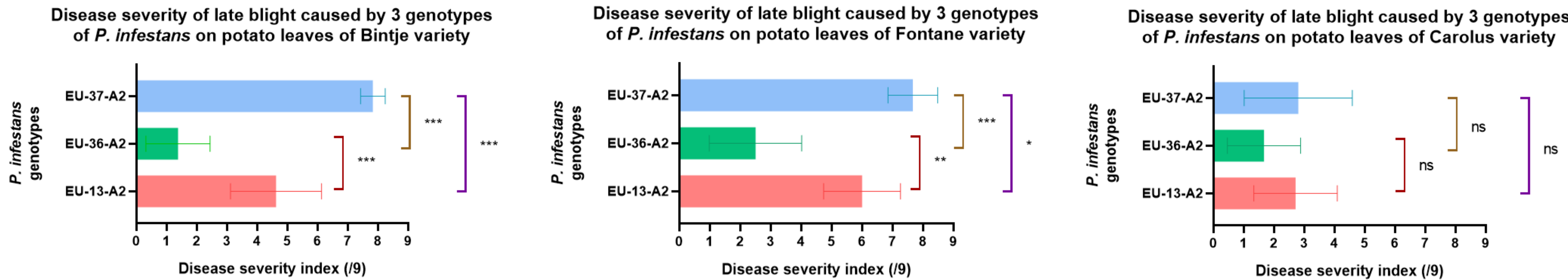
## EXPERIMENTAL CONTEXT



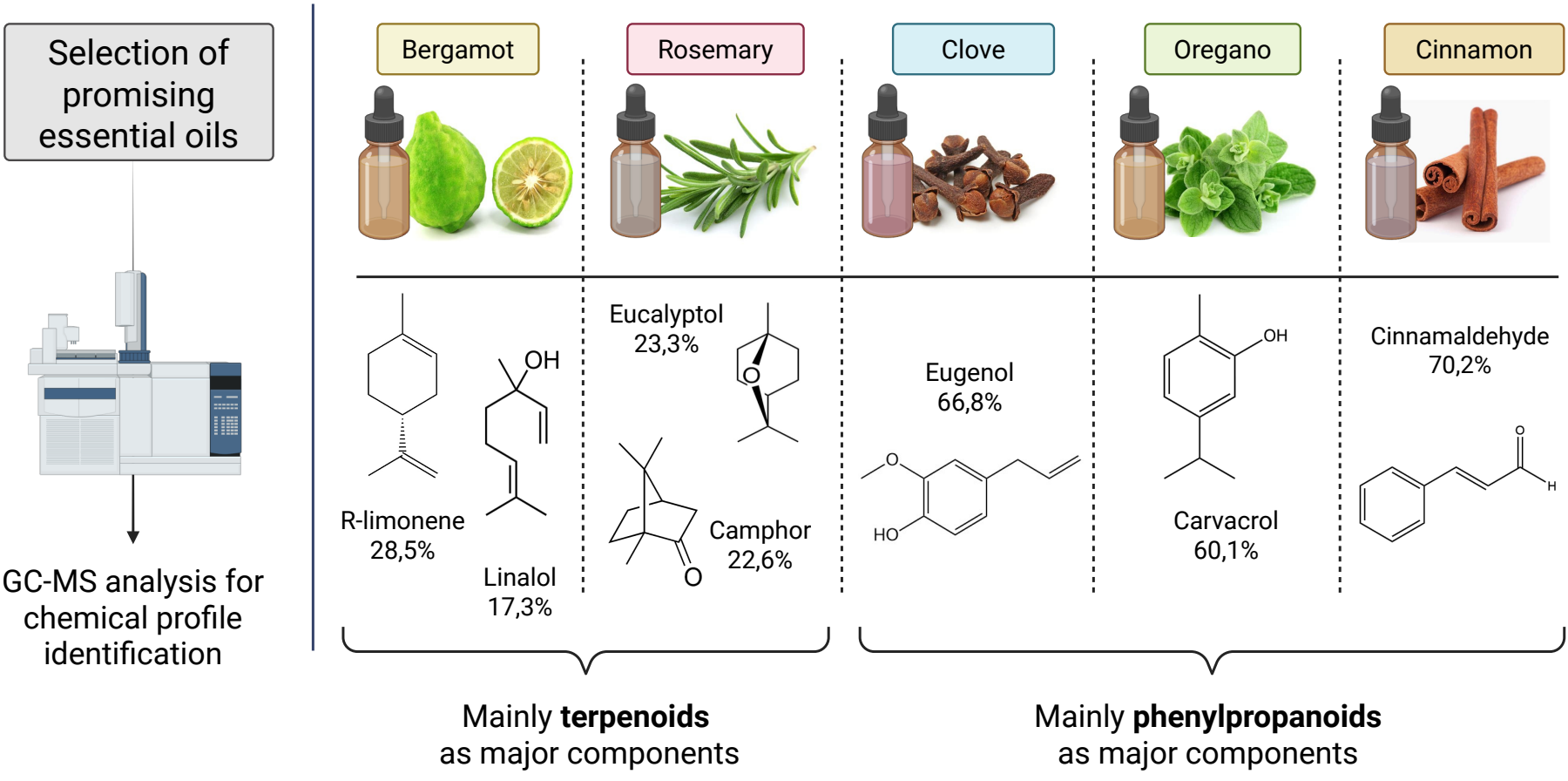
## METHODOLOGY



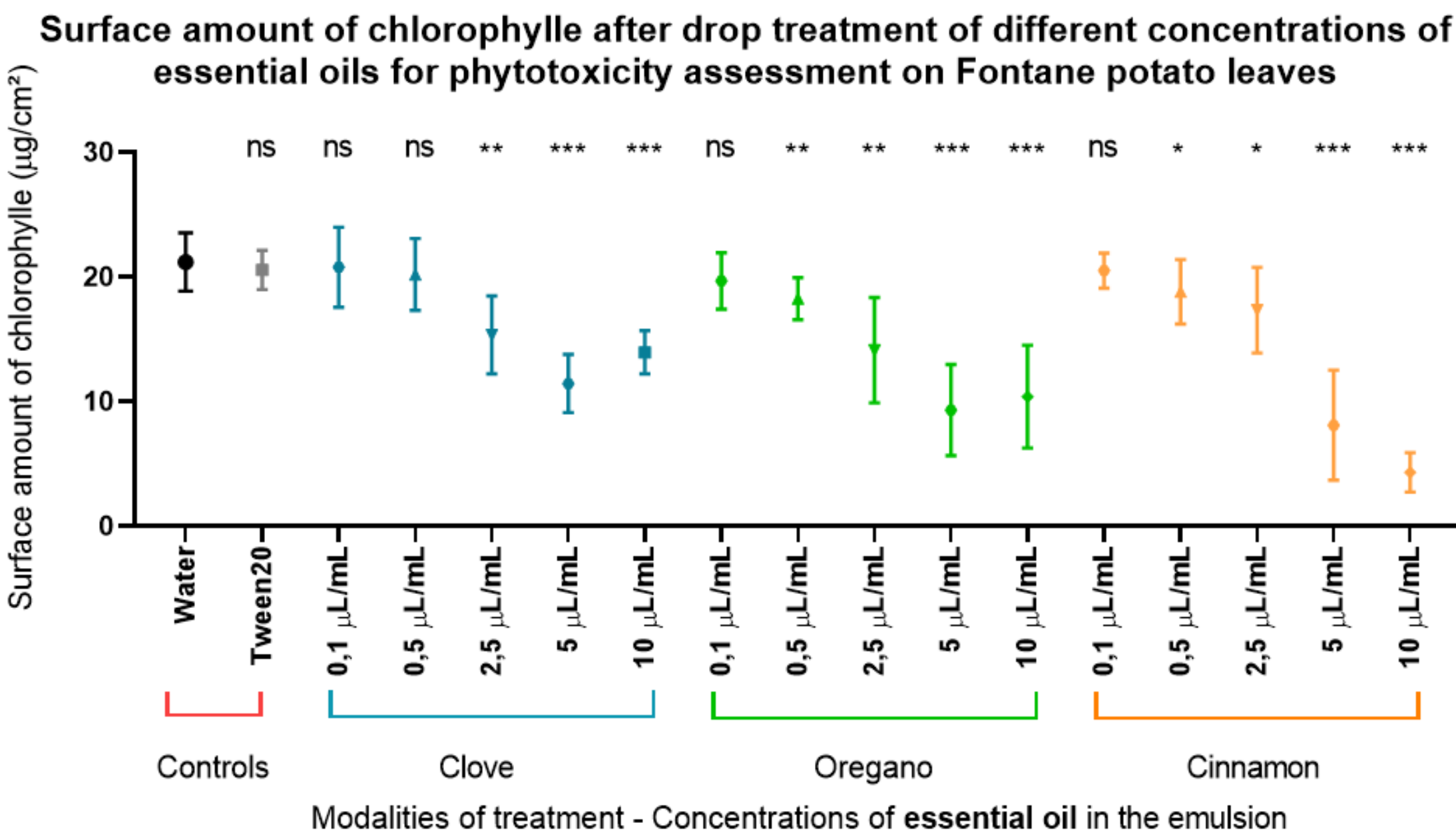
## RESULTS



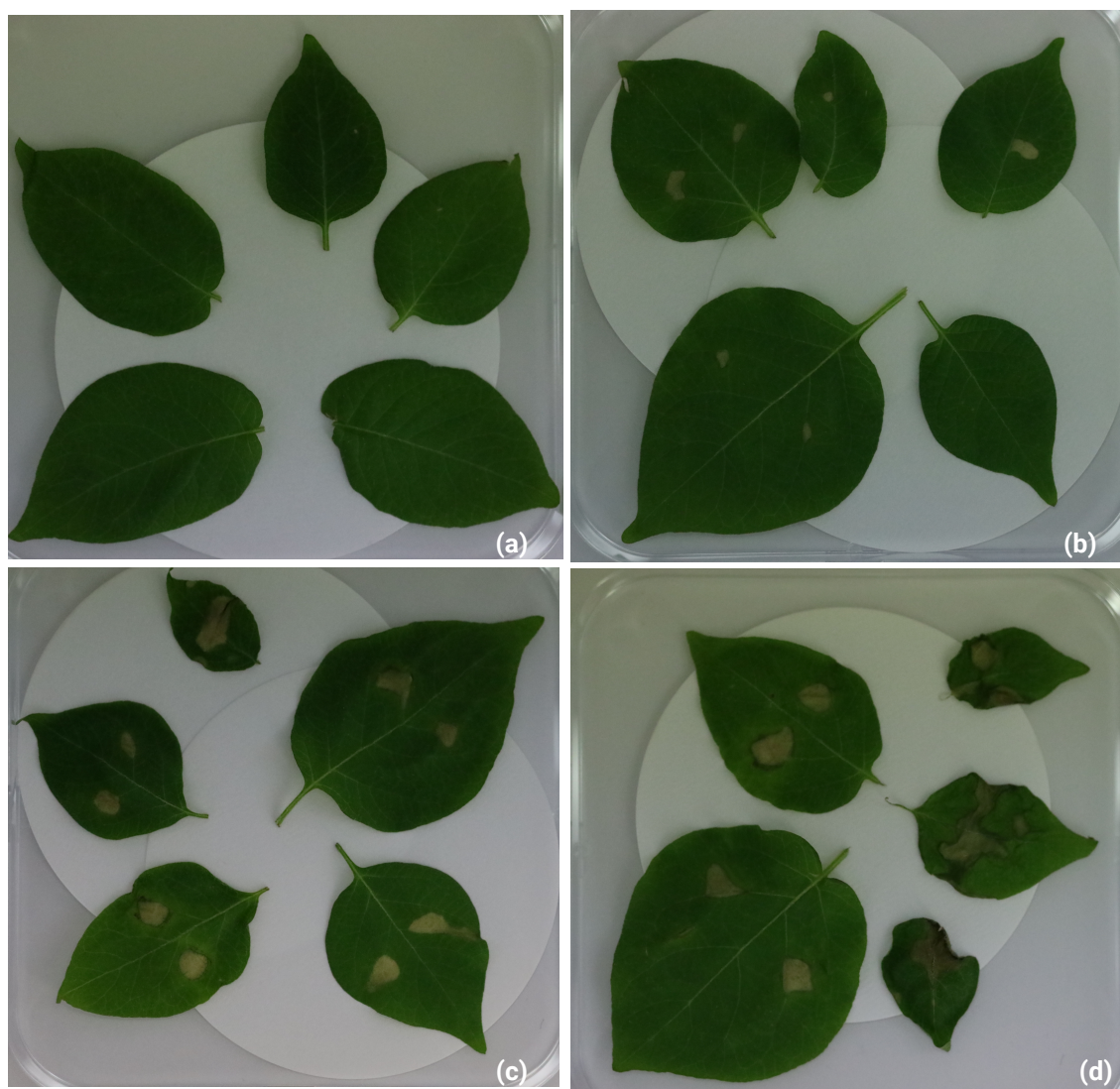
1. Bintje and Fontane are two sensitive varieties while Carolus clearly shows some tolerance to late blight. Genotype EU-37 seems the most aggressive.



2. All three essential oils with phenylpropanoids as major compounds allowed a much higher inhibitory potential against spore germination than terpenoids-rich essential oils.

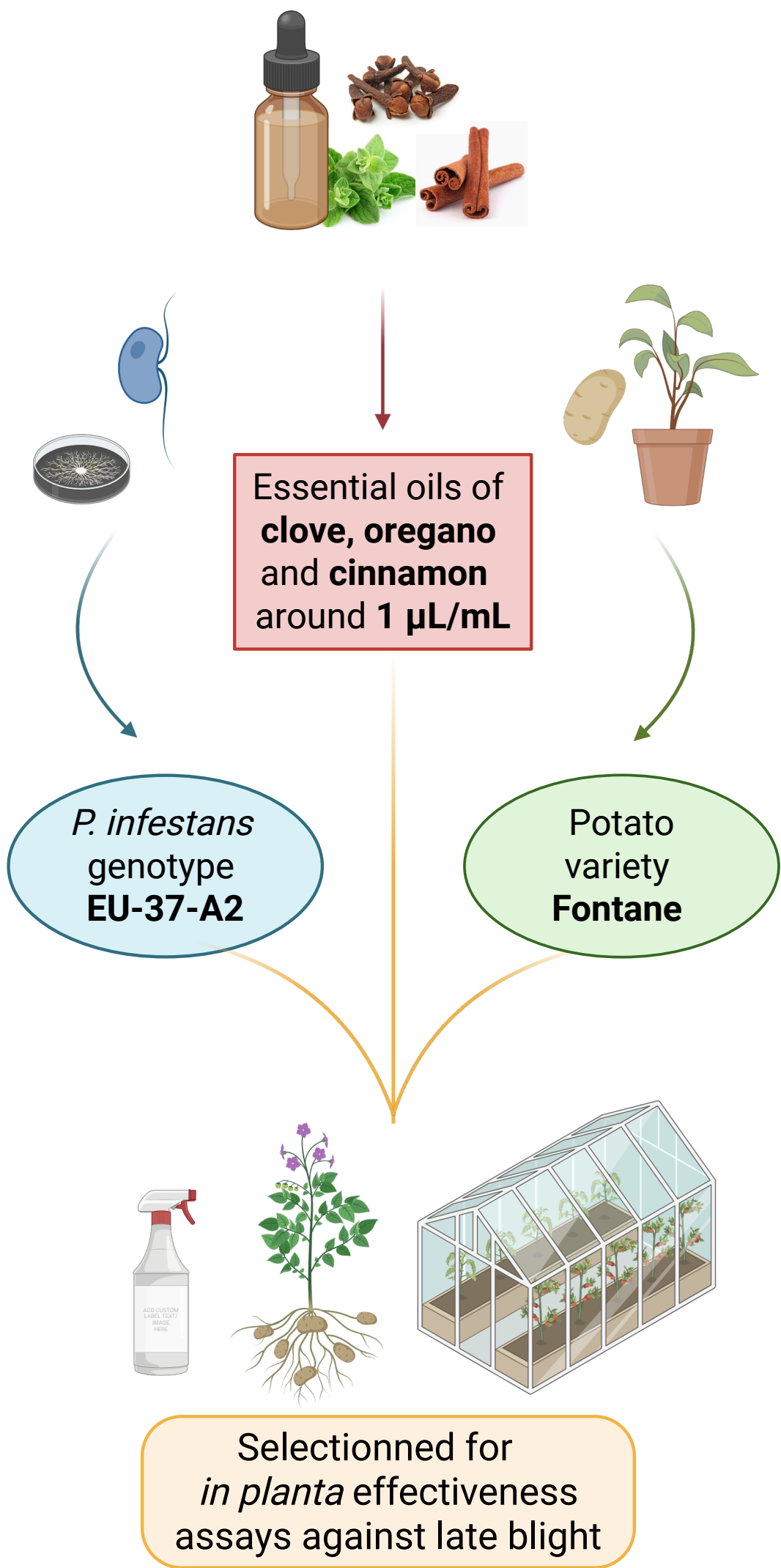


3. Phytotoxicity thresholds were assessed only for the three most promising essential oils against *P. infestans* namely clove, oregano and cinnamon, mainly composed of phenylpropanoids. It seems that non-visible signs of phytotoxicity appeared on leaves for all three oils between 0,5 and 2,5 µL/mL.



Potato leaves after 4 days with drop treatments of oregano essential oils emulsions at (a) control ; (b) 2,5 µL/mL ; (c) 5 µL/mL and (d) 10 µL/mL

## CONCLUSION



## REFERENCES

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