

# How root and leaf traits of soft fruit help resist pest and pathogen attack



The James  
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Institute

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## Background

This project hopes to identify morphological structures and biochemical characteristics that interfere with pest/pathogen movement, host recognition, feeding or reproduction on or in the plant. We aim to investigate 4 key traits (1) root architecture and morphology, (2) leaf trichomes, (3) cane/stem architecture and (4) plant habit to determine how variation in these traits contributes to resistance against pest and diseases in the soft fruit crops raspberry, blackcurrant and blueberry.

## The soft fruit crops

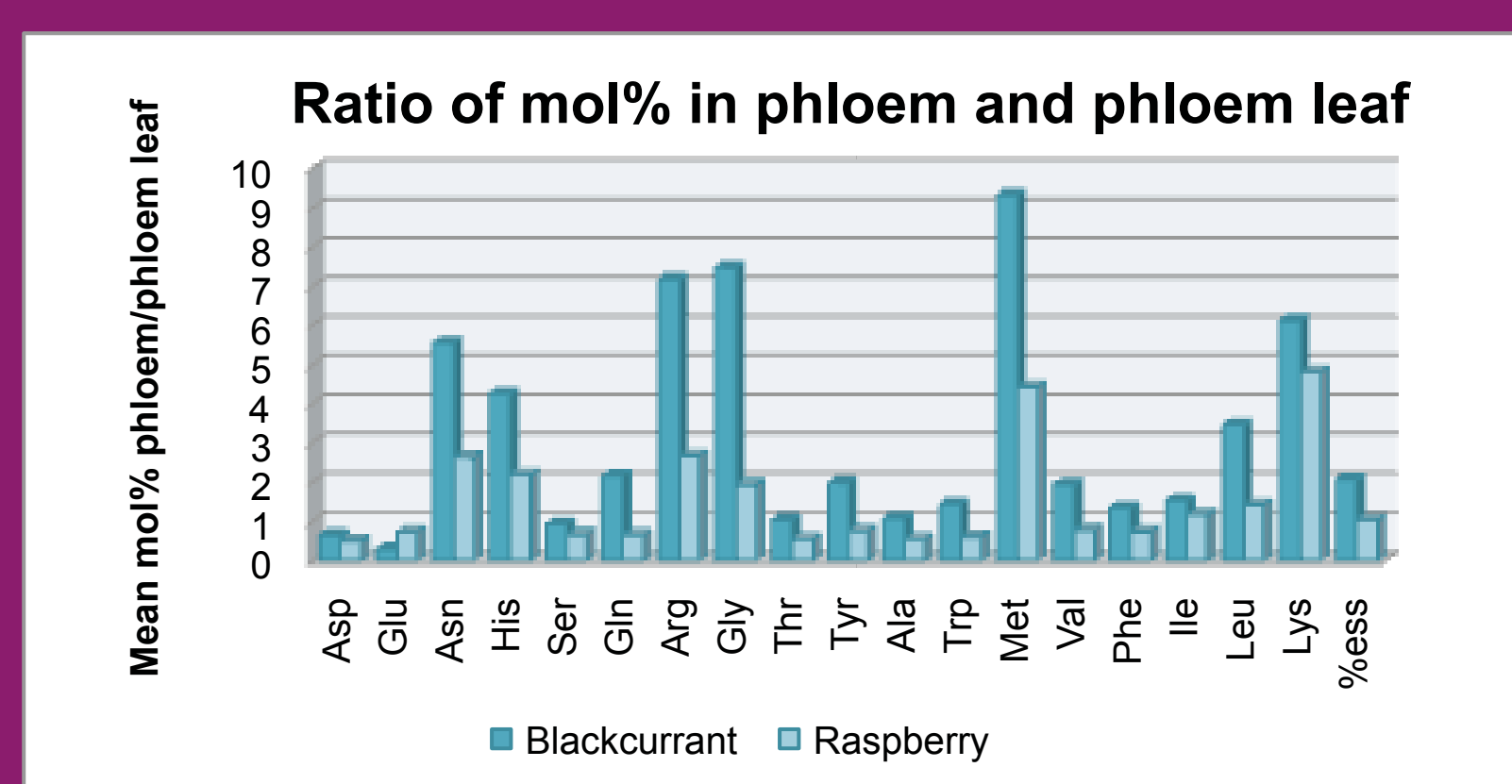


## The pests and diseases

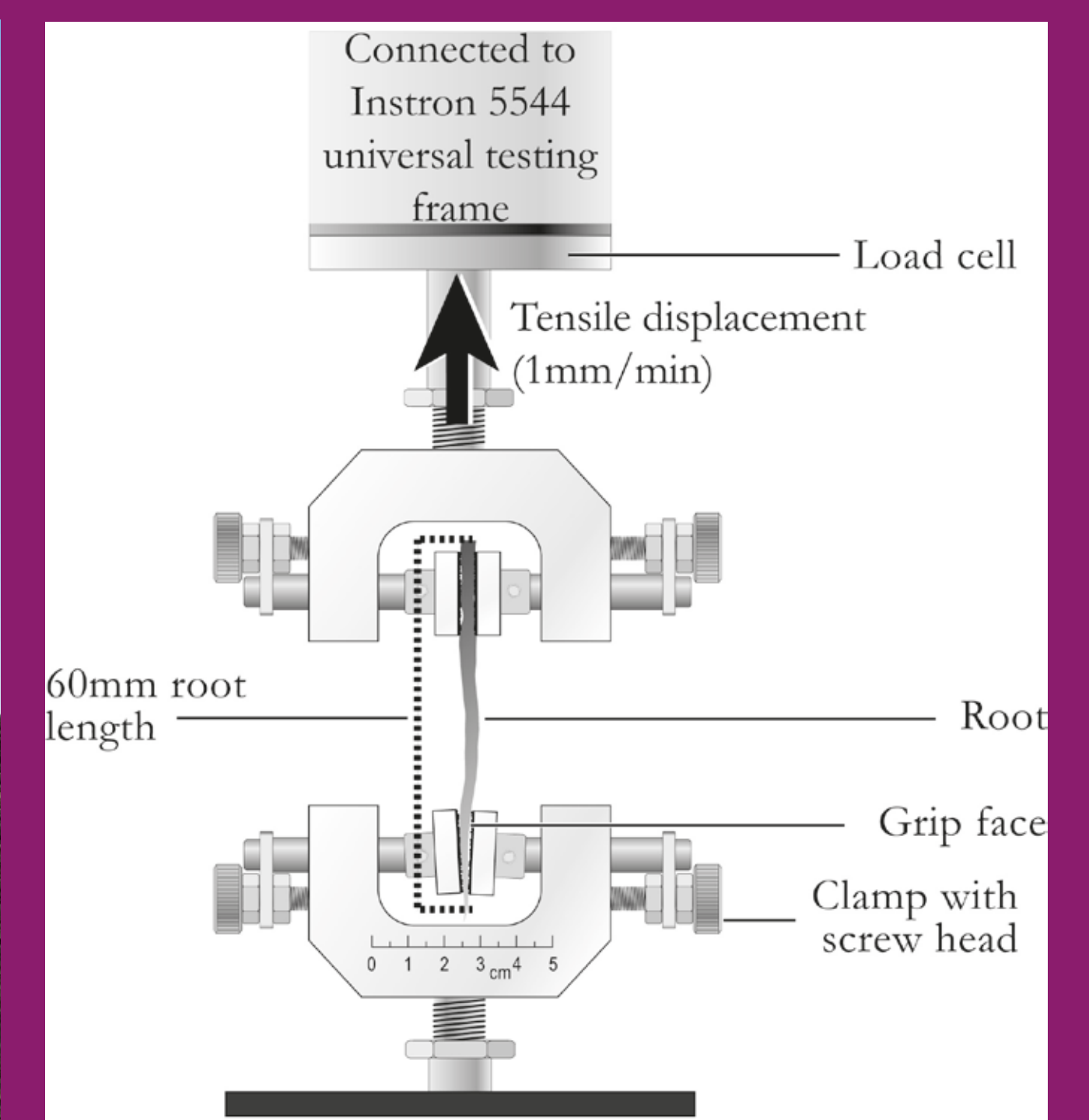


## The plant characteristics under investigation

### Plant nutrients



### Physical root and leaf characteristics



Phenolics,  
lignin and  
cellulose

