

**Thrips resistance in gladiolus: An eco-metabolomic approach** Wahyuni, D.S.C.

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### STELLINGEN

### Behorende bij het proefschrift

#### Thrips resistance in *Gladiolus*: an eco-metabolomic approach

- 1. The density of epicuticular papillae is an important morphological trait correlating with thrips resistance and thus, provides a promising marker for fast phenotypical resistance screening in *Gladiolus* (this thesis, Chapter 2)
- 2. *Gladiolus* host resistance to thrips correlates with physical papillae leaf structures but is strongly intertwined with chemical defensive metabolites (this thesis, Chapter 3).
- 3. Ontogenic development is an important determinant of leaf-based thrips resistance in *Gladiolus* (this thesis, Chapter 4).
- 4. Host resistance in *Gladiolus* is mainly genetically determined without a strong genotype-environment interaction (This thesis, chapter 5).
- 5. NMR-based metabolomics holds a great potential for identifying early stage putative biomarkers related to thrips resistance but the importance of secondary metabolites related to plant susceptibility is underestimated.
- 6. The combination of QTL mapping for resistance and for signals from metabolomic analyses such as NMR is a promising strategy to identify metabolites involved in resistance (Bac-Molenaar *et al.*, 2019).
- 7. Constitutive and inducible host plant resistance are not mutually exclusive and thus, both are relevant within the breeding process.
- 8. The increasing insecticides resistance due to the overuse of chemicals teaches us to shift non-insecticidal tactics (Wu *et al.*, 2018).
- 9. 'All the pests that out of earth arise, the earth itself the antidote supplies' Lithica (400 BC).
- 10. An erudite scientist is no longer sufficient for scientific progress, in this era interdisciplinary cooperation brings science forward.