

Differences in pathogenicity among the three species of *Colletotrichum* on excised leaves, twigs, and branches of *Dalbergia sissoo*
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INTRODUCTION & AIM

HOST: DALBERGIA SISSOO

- Fast-growing and drought-tolerant and valued in agroforestry for nitrogen fixation and soil stabilization
- Economically valuable for timber, furniture, and agroforestry but now threatened by fungal diseases like dieback and anthracnose

Pathogen (*Colletotrichum* spp.)

- Colletotrichum* spp. are destructive fungal pathogens and cause anthracnose in leaves, twigs, and fruits
- New threat in Forestry and emerging of *Colletotrichum* spp. on *D. sissoo* . Ultimelty potential threat to regeneration and forest health

AIM:

- To assess the variation in pathogenicity among the three species of *Colletotrichum* (*Colletotrichum gloeosporioides*, *C. fragariae*, and *C. siamense*) on detached leaves, twigs, and branches of *Dalbergia sissoo*.
- To assess the infecting ability of *C. fragariae* and *C. siamense* which are not reported to cause diseases on *D. sissoo*.

RESULTS & DISCUSSIONF

Infection Rate

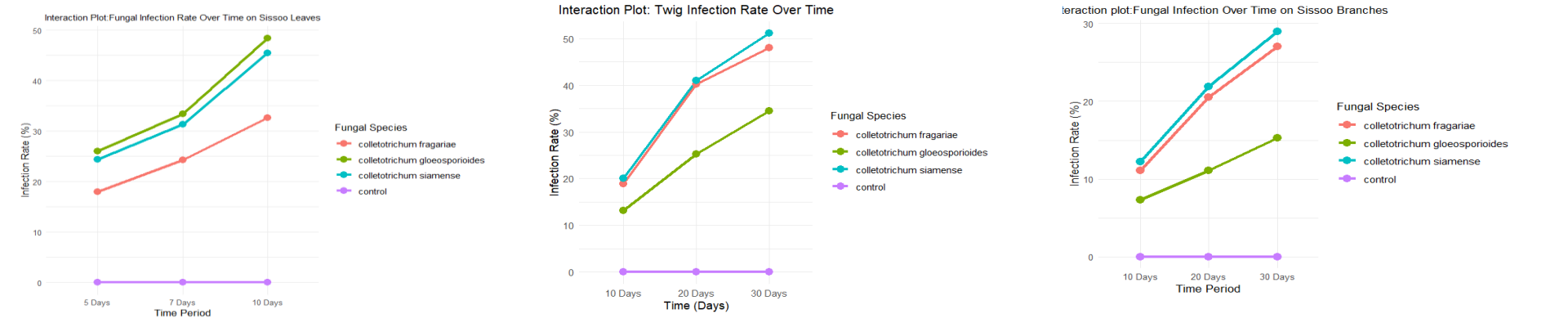


Figure: Lession development in twigs, branches and leaves

METHOD

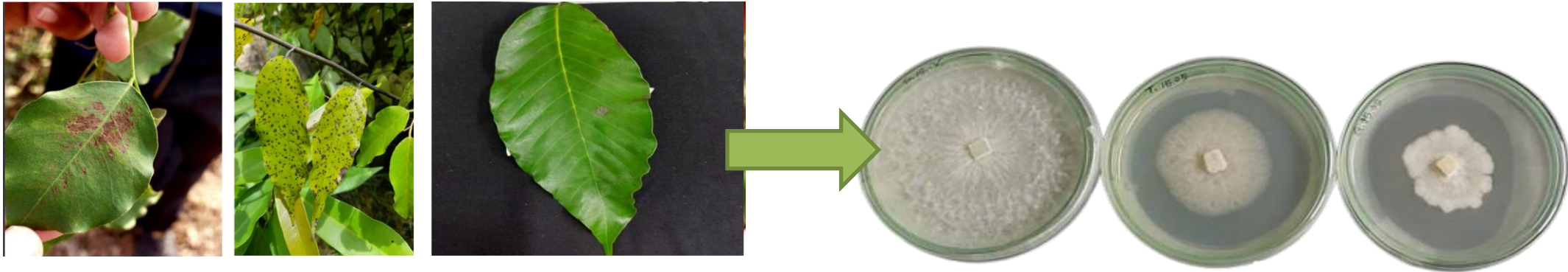


Fig-01:Symptoms and re-isolation of leaf spot disease on (a) *Dalbergia sissoo* , (b) *Hopea odorata* , and (c) *Dipterocarpus turbinatus*

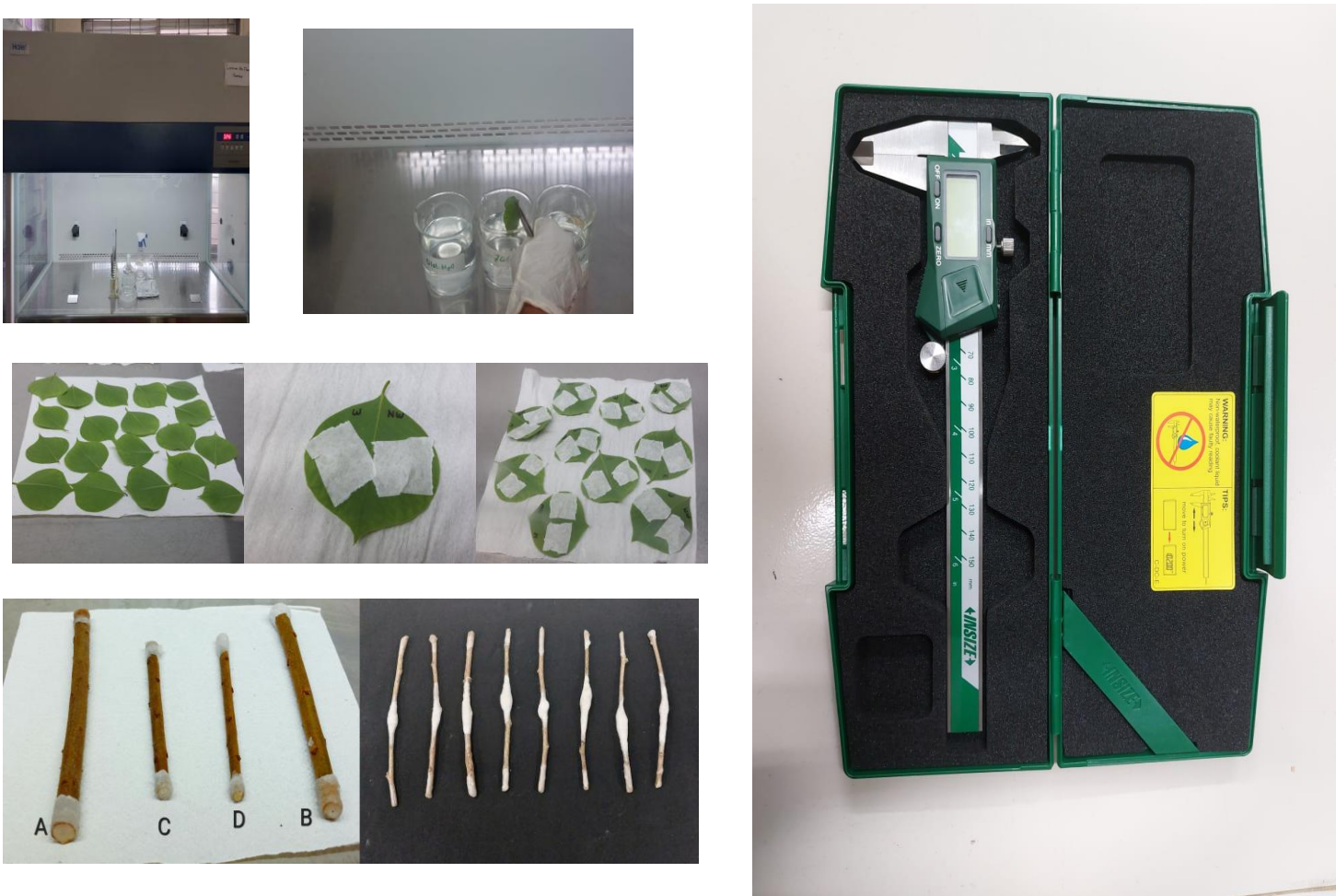
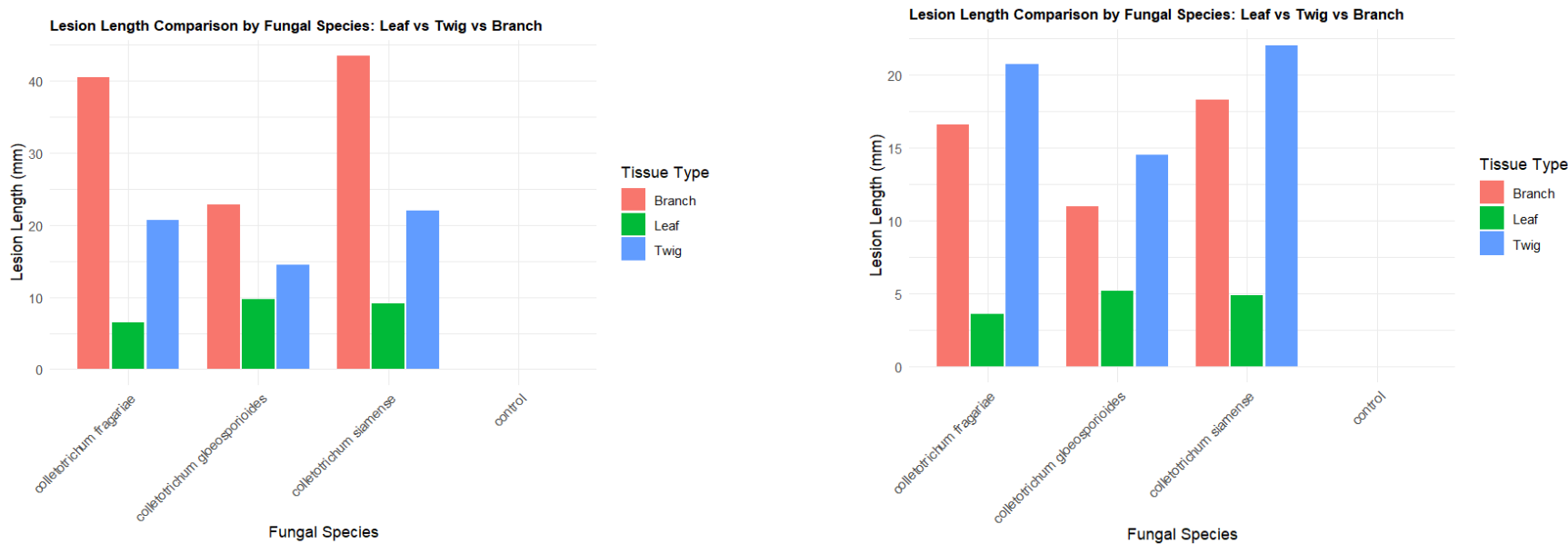
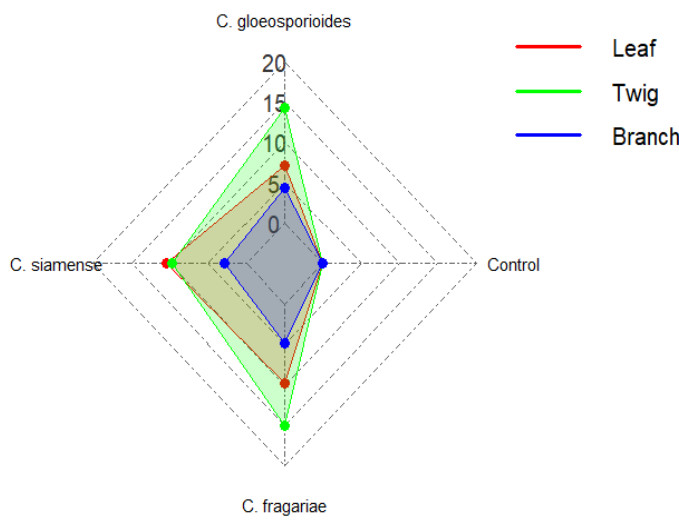


Fig-02: Leaves (wounded and unwounded), branches, and twigs of *Dalbergia sissoo* after surface sterilization and inoculation with mycelial agar disc plugs of *Colletotrichum gloeosporioides*, *C. siamense*, and *C. fragariae*.

Responses of plant organs (leaves, twigs and branches) to Fungal



Infection Rate Radar Plot (All Pathogens)



CONCLUSION

- Pathogenicity varies by species and tissue type
- C. gloeosporioides* affects leaves; *C. siamense* targets woody parts
- Non-host species also show notable infection, indicating broader threat

FUTURE WORK / REFERENCES

- Monitor infection in forests seasonally
- Find biocontrol for safe, long-term management

Statistical Analysis

