

The Glasshouse & Shadehouse Facilities

The glasshouse facility is an integral part of several research projects. Trials can be conducted in warm controlled environments (the glasshouses) where temperature and—to a degree—light conditions can be manipulated, and under ambient conditions (the shadehouses).

The main uses are:

- To propagate study plants used in experimental analyses of genetic diversity, molecular systematics and hybridization. Genetic diversity is an important aspect of New Zealand plant biodiversity and plays a vital role in plant conservation management.
- To study the effects of environmental variables and pathogens (fungi, bacteria including phytoplasmas) on plant fitness, and to identify the plant pathogens, host range for systematics, disease management, and weed biological control.
- To undertake studies into the biological control of weeds using insects, micro-organisms, or both.
- To grow native legumes (kōwhai, kākā beak, *Carmichaelia*) and introduced woody weeds (broom, gorse, wattle) with their symbiotic root bacteria (rhizobia). Determining which bacteria legumes are able to utilize could help explain why weedy legumes are so invasive.
- To study plants suitable for use in restoration work and the biophysical conditions under which establishment will be most effective.

