

Supplemental Applications

This section presents extended application examples demonstrating the practical utility of the grafting toolkit across diverse domains.

S4.1 Fruit Tree Production Systems

S4.1.1 Commercial Apple Orchards

Application to commercial apple production demonstrates:

- ▶ **Rootstock selection:** M.9 and M.26 rootstocks selected for dwarfing and disease resistance
- ▶ **Scion varieties:** Multiple varieties grafted to single rootstock for diversity
- ▶ **Success rates:** 85-90% in commercial operations using recommended techniques
- ▶ **Economic returns:** \$15-25 per successful graft, supporting profitable operations

The toolkit's compatibility predictions enable informed rootstock-scion selection, improving success rates by 10-15% compared to traditional methods.

S4.1.2 Citrus Production