

GiSela®6 Gi 1481(S)

the high-yielding, growth-reducing alternative to GiSela®5 Gi 1482

The dwarfing cherry rootstock GiSela®6 Gi 1481(S)

Lineage	<i>P. cerasus</i> „Schattenmorelle“ x <i>P. canescens</i>
Selection	Breeding program at the University of Giessen
Variety Name	Gi 1481(S)
Variety Rights Holder	Consortium Deutscher Baumschulen GmbH

GiSela®6 Gi 1481(S) is, however, less demanding than GiSela®5 Gi 1482 in terms of soil, water supply and crop management.

This clone lies between GiSela®5 Gi 1482 and *P. avium* in growth vigor and is suitable for less intensive cultivation. Despite the stronger growth, yields start very early.

GiSela®6 Gi 1481(S) is characterized by flat branches and broad growth habit, no tendency to suckering, excellent winter hardiness, tolerance to pollen-borne viruses, and very good varietal compatibility with healthy, tested scion wood provided.

It facilitates the transition from vigorous growing to growth-reducing dwarfing rootstocks. In the Pacific Northwest of the USA, GiSela®6 Gi 1481(S) is the most commonly planted GiSela® type.

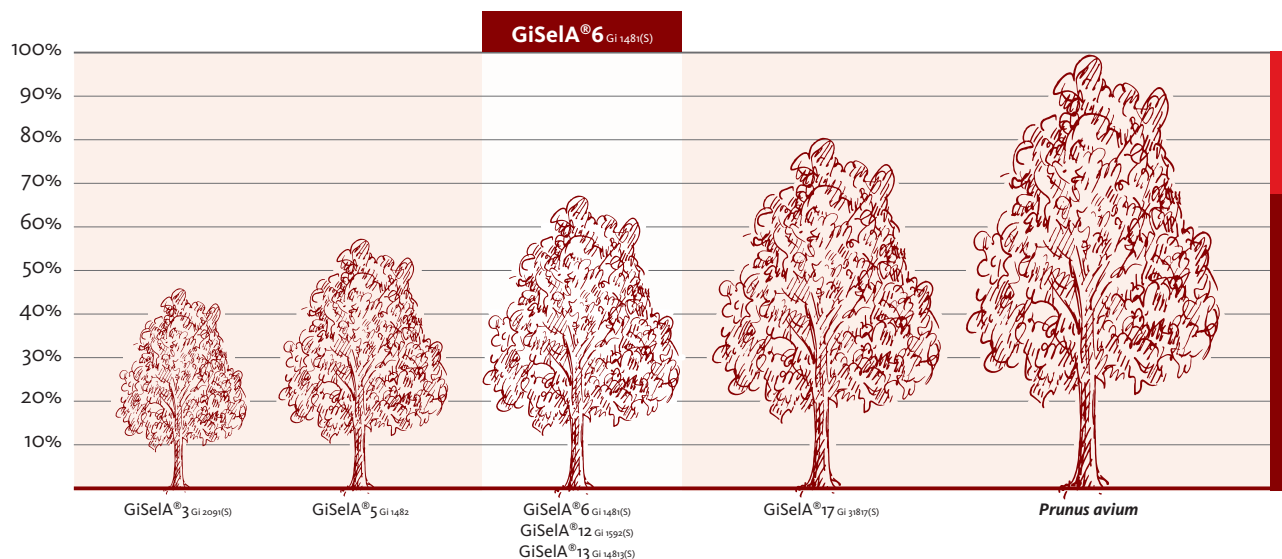
It is suitable for growing on lighter, medium, or heavier soils without irrigation capability.

GiSela®6 Gi 1481(S) is the rootstock of choice when trees are to be grown as scaffolded crowns, produced with lower cultural intensity, or with wider plant spacing.

Overview of GiSela® varieties

- **GiSela®3** Gi 2091(S) the rootstock for the specialist in very intensive sweet cherry cultivation
- **GiSela®5** Gi 1482 the most important dwarfing cherry rootstock, standard in Central Europe
- **GiSela®6** Gi 1481(S) the high-yielding, growth-reducing alternative to GiSela®5 Gi 1482
- **GiSela®12** Gi 1592(S) the alternative to GiSela®6 Gi 1481(S)
- **GiSela®13** Gi 14813(S) the undemanding sister
- **GiSela®17** Gi 31817(S) the most vigorous, with suitability for replanting

Overview of vigor induction vs. *Prunus avium*



(S) = plant variety protection

the high-yielding, growth-reducing alternative to GiSela®⁵ Gi 1482

Special characteristics

Growth rate induction	Vs. <i>Prunus avium</i> 55-65% of „F12/1“ and/or „Mazzard“; Medium-dwarfing rootstock between GiSela® ⁵ <small>Gi 1482</small> and GiSela® ¹⁷ <small>Gi 3187(S)</small> Strong growth in the juvenile phase, induced by in vitro propagation, weakens to the level typical of the variety with the onset of production
Anchorage / Root system	Scaffold / support necessary / few fine roots
Succering tendency	No succering
Grafting point/unit	Tolerable overwhelm

Yield

Yielding potential	Very high
Precocity	Trees come into yield much earlier than trees on <i>Prunus avium</i> rootstocks
Yield generation	Produces early yields; first yields from the 2nd leaf / full yields from the 4th leaf onwards
Fruit size	Good to very good; no negative influence by the rootstock; the decisive factor is crop management, in particular early, regular pruning, as well as sufficient fertilization and irrigation/fertigation. Fruits remain small if too little pruning is done and new growth on weak rootstocks is then too low. Important: leaf-to-fruit ratio 3 to 1
Combination with very fertile / self-fertile varieties	Not recommended

Site - Climate

Soil quality requirements	Medium; wide adaptation; good drainage required; on lighter, medium and heavier soils without irrigation possibility; in temperate central European climate, on good soils, a stronger crown growth, leaving the root crown behind; sites with light summer drought are better suited
Geographical region	Southern and South-Eastern Europe / USA South America
Climate requirements	Not for windy sites and areas with high precipitation; in hot climates better than GiSela® ⁵ <small>Gi 1482</small>
Winterhardiness	Good to very good

Cultural management

Demands on culture management	Medium; less demanding than GiSela® ⁵ <small>Gi 1482</small> ; less demanding on soil, water supply and crop management; ideal leaf-to-fruit ratio 3 to 1
Varietal suitability	Sweet cherries; also suitable for sour cherries
Suitability / Cultivation intensity	Trees should be trained as crowns with limbs; generally somewhat lower cultural intensity than GiSela® ⁵ <small>Gi 1482</small>
Planting density	High to medium; row spacing 3.5 m to 4 m in row 2.2 m to 3.2 m distance, depending on variety; generally slightly lower crop intensity than GiSela® ⁵ <small>Gi 1482</small>
Irrigation demand (In relation to temperate Central European climate 600-700mm annual precipitation)	On good heavier soils also possible without irrigation, but irrigation advantageous
Fertilization / Fertigation	Depending on the soil sample, 40-60 kg total N/ha/year required for established trees from the 5-6 standing year; depending on the soil sample, 30-50 kg N/ha divided as early basic fertilization already before flowering and 10-20 kg N/ha as follow-up fertilization ideally as fertigation until harvest; generally higher fertilizer applications than for <i>Prunus avium</i>
Covered cultivation	Not appropriate, but possible
Replanting	Best suited; best rootstock in a replanting trial in South Tyrol, data on request!

Disease response / Tolerances

PDV / PNRSV	Tolerant
Cherry Leaf Roll	Hypersensitive
RRV (Rainier Ring Mottle Virus)	Medium susceptible
<i>Phytophthora</i>	Resistant
<i>Pseudomonas</i>	Depending on variety and weather conditions
<i>Agrobacterium</i>	Due to in vitro propagation, all rootstocks are EU certified and disease free; <i>Agrobacterium</i> infection comes from contaminated soils