

GiSela®13^{Gi 14813(S)}

the undemanding sister of GiSela®5^{Gi 1482} and GiSela®6^{Gi 1481(S)}

The dwarfing cherry rootstock GiSela®13^{Gi 14813(S)}

Lineage	<i>P. cerasus</i> „Schattenmorelle“ x <i>P. canescens</i>
Selection	Breeding program at the University of Giessen
Variety Name	Gi 14813 ^(S)
Variety Rights Holder	Consortium Deutscher Baumschulen GmbH

GiSela®13^{Gi 14813(S)} is comparable in vigor to GiSela®6^{Gi 1481(S)}. It is characterized by flat branching and broad growth habit, no tendency to succering, excellent winter hardiness, tolerance to pollen-borne viruses, and very good cultivar compatibility with healthy, tested scion wood provided.

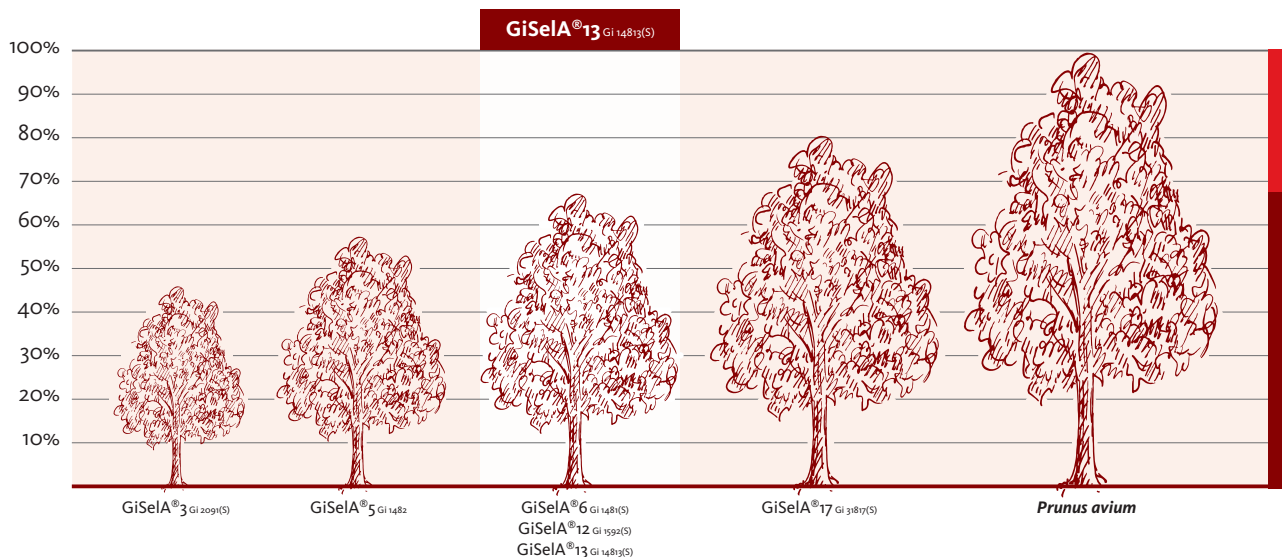
The undemanding GiSela®13^{Gi 14813(S)} has proven itself under conditions that are not optimal for GiSela®5^{Gi 1482}. Even on poorer soils and in replanting, GiSela®13^{Gi 14813(S)} achieves high yields and always good fruit qualities.

GiSela®13^{Gi 14813(S)} is ideal for combination with self-fertile varieties. It has proven tolerant to the viruses PDV and PNRSV.

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 3187(S)} the most vigorous, with suitability for replanting

Overview of vigor induction vs. *Prunus avium*



(S) = Plant Variety Protection, Propagation prohibited

the undemanding sister of GiSela[®]5_{Gi 1482} and GiSela[®]6_{Gi 1481(S)}

Special characteristics

Growth rate induction	Vs. <i>Prunus avium</i> 65-75% of „F12/1“ and/or „Mazzard“; medium-dwarfing between GiSela [®] 5 _{Gi 1482} and GiSela [®] 17 _{Gi 31817(S)} ; about 5 % to 15 % stronger than GiSela [®] 6 _{Gi 1481(S)} , variable => under certain circumstances vigor like GiSela [®] 5 _{Gi 1482} 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	Well anchored cultivable without support
Succering tendency	No succering
Grafting point/unit	Tolerable overwhelm

Yield

Yielding potential	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/5th leaf onwards
Fruitsize	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	Very recommended with good size

Site - Climate

Soil quality requirements	Very broad adaptation, most undemanding GiSela [®] ; also good on soils that are too poor for GiSela [®] 5 _{Gi 1482} and in replanting
Geographical region	Suitable for many situations even suboptimal
Climate requirements	Good drought and heat tolerance; requires only 1/3 of the irrigation amount of GiSela [®] 5 _{Gi 1482} as a rootstock in the nursery
Winterhardiness	Good to very good

Cultural management

Demands on culture management	Medium to easy, due to vigor, new shoot formation is fairly easy. Regular pruning to produce sufficient shoot length and leaf mass for good fruit each year; ideal leaf-to-fruit ratio 3 to 1
Varietal suitability	Lower fertility; advantage: the combination with self-fertile varieties does not lead to overcropping, therefore good fruit sizes; also suitable for sour cherries
Suitability / Cultivation intensity	The most insensitive GiSela [®] in the medium dwarfing vigor group. Ideal for replanting with GiSela [®] 5 _{Gi 1482} and under suboptimal conditions; Lower fertility; advantage: the combination with self-fertile varieties does not lead to overcropping, therefore good fruit sizes
Planting density	Medium, row spacing 4.0 m to 5.0 m in row 2.5 m to 3.5 m distance depending on variety
Irrigation demand (In relation to temperate Central European climate 600-700mm annual precipitation)	Not necessary, but beneficial
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
Replanting	Well suited and especially for less / suboptimal sites

Disease response / Tolerances

PDV / PNRSV	Tolerant
<i>Pseudomonas</i>	Depending on variety and weather conditions
Agrobacterium	Due to in vitro propagation, all rootstocks are EU certified and disease free; Agrobacterium infection comes from contaminated soils