

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)}

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|-----------------------|---|
| 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.

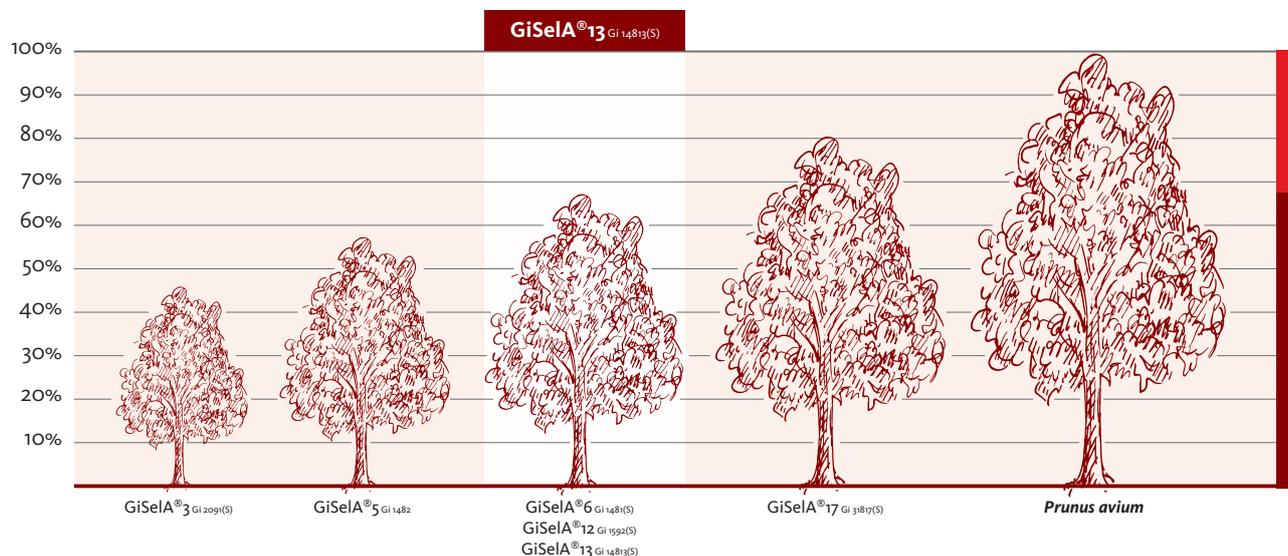
The undemanding GiSela[®]13_{Gi 14813(S)} has proven itself under conditions that are not optimal for GiSela[®]5_{Gi 1482}. Even on poorer soils and in replanting, GiSela[®]13_{Gi 14813(S)} achieves high yields and always good fruit qualities.

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

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Special characteristics

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| 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

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| 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

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| 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

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| 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

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| 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 |