GENESIS NURSERIES®

GiSelA® ROOTSTOCKS
dwarfing rootstocks for cherries

# GiSelA®12 Gi 1592(S)

## the alternative to GiSelA®6 Gi 1481(S)

| The dwarfing cherry rootstock GiSelA®12 Gi 1592(S) | |
|---|---|
| **Lineage** | *P. canescens x P. cerasus* „Leitzkauer“ |
| **Selection** | Breeding program at the University of Giessen |
| **Variety Name** | Gi 1592(S) |
| **Variety Rights Holder** | Consortium Deutscher Baumschulen GmbH |

GiSelA®12 Gi 1592(S) is similar in growth vigor to GiSelA®6 Gi 1481(S), but is slightly stronger under most conditions. In Europe, GiSelA®12 Gi 1592(S) is gaining importance especially on sites where GiSelA®6 Gi 1481(S) causes problems, such as windy locations.

GiSelA®12 Gi 1592(S) is characterized by flat branches 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.

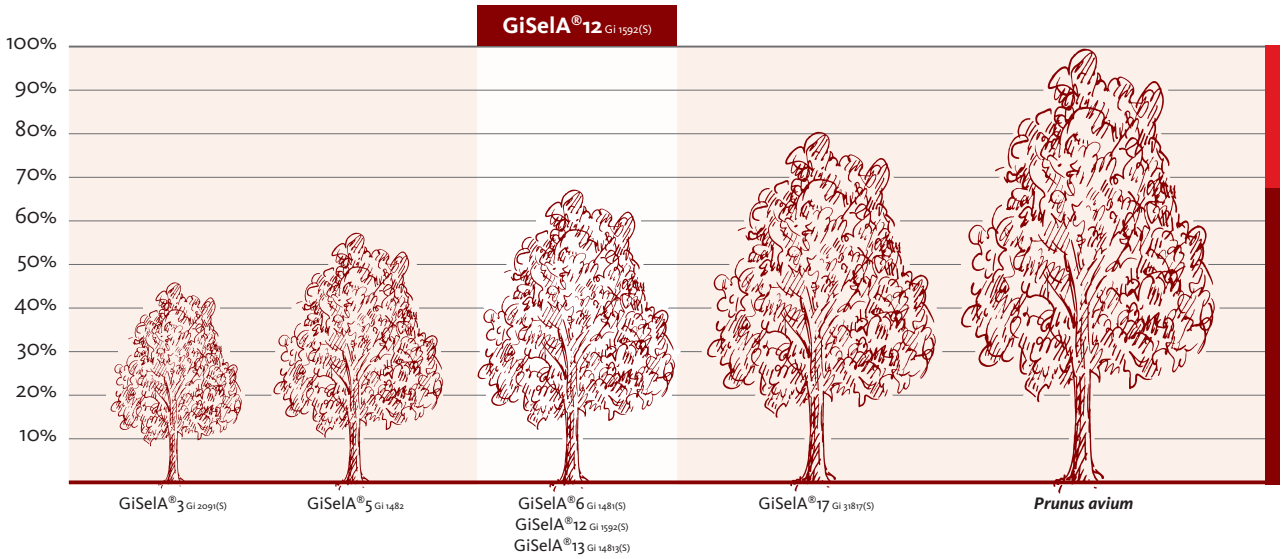
The lower fertility compared to GiSelA®5 Gi 1482 and 6 Gi 1481(S) is often rated as very positive. Especially the combination with self-fertile varieties does not lead to overcropping. Yields start early and fruit size is promoted with adapted pruning measures.

In addition to good winter hardiness, GiSelA®12 Gi 1592(S) also copes well in hot climates. GiSelA®12 Gi 1592(S) has proven tolerant to PDV and PNRSV viruses.

### 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

**Production & Distribution**
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# GiSelA®12 Gi 1592(S)

## the alternative to GiSelA®6 Gi 1481(S)

| Special characteristics | |
|---|---|
| **Growth rate induction** | Vs. *Prunus avium* 60-70% of „F12/1“ and/or „Mazzard“; medium-dwarfing rootstock between GiSelA®5 Gi 1482 and GiSelA®17 Gi 31817(S); variable; similar to GiSelA®6 Gi 1481(S)<br>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** | Strong overwhelm in later years |

| Yield | |
|---|---|
| **Yielding potential** | High, with early-set yields, but lower than GiSelA®5 Gi 1482 and GiSelA®6 Gi 1481(S); therefore good fruit sizes |
| **Precossity** | Trees come into yield much earlier than trees on *Prunus avium* rootstocks |
| **Yield generation** | Produces early yields; first yields from the 2nd leaf / full yields from the 4th 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.<br>Fruits remain small if too little pruning is done and new growth on weak rootstocks is then too low.<br>**Important:** leaf-to-fruit ratio 3 to 1 |
| **Combination with very fertile / self-fertile varieties** | Recommended with good size |

| Site - Climate | |
|---|---|
| **Soil quality requirements** | Broad adaptation; prefers light sandy soils in drier, warm hot conditions. Avoid heavy, cold, moist soils and especially very (80-100cm) high groundwater levels |
| **Geographical region** | Southern and South-Eastern Europe / USA South America |
| **Climate requirements** | Also suitable for hotter climates; has significantly less drought stress and recovers from it faster than GiSelA®5 Gi 1482; clearly better for windy sites than GiSelA®6 Gi 1481(S) |
| **Winterhardiness** | Good to very good |

| Cultural management | |
|---|---|
| **Demands on culture management** | Medium; formation of new shoots is easily achieved; fruit size is promoted with adapted pruning measures; 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** | Trees should be educated as crowns with limbs |
| **Planting density** | Medium, row spacing 3.5 m to 4.5 m in row 2.5 m to 3.5 m distance depending on variety |
| **Irrigation demand**<br>(In relation to temperate Central European climate 600-700mm anual precipitation) | Low, irrigation 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 *Prunus avium* |
| **Covered cultivation** | Not appropriate |
| **Replanting** | Tolerable growth and yield reduction; suitable especially on lighter sandy warm/hot sites |

| Disease response / Tolerances | |
|---|---|
| **PDV / PNRSV** | Tolerant |
| ***Pseudomonas*** | 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 |
| **Tranzschelia** | Suscepatble |

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