Kober 5 BB

Genetic origin

This variety results from the crossbreeding of *Vitis berlandieri* and *Vitis riparia* derived from Euryale Rességuier.

Name of the variety in France (and usual name)

5 BB

Breeder\/breeder and year obtained

Sigmund Teleki and Franz Kober, 1896.

Estimated surface area of the French vineyard grafted with this rootstock and main regions of use

9 000 ha . Alsace, Aquitaine, Bourgogne Franche-Comté, Val de Loire, Charentes, Midi-Pyrénées, Rhône-Alpes.

Elements of ampelographic description

The identification is based on:
- the tip of the young shoot that is half open or closed, with a piping anthocyanin coloration and a medium density of prostrate hairs,
- the green, slightly bronzed young leaves,
- the elongated shoots with ribbed surface, a circular or slightly elliptic section, red or red-striped internodes, and a low density of erect hairs on the nodes,
- the bifid tendrils,
- the large, soft, wedge-shaped, entire adult leaves, with a flat leaf blade, involute on the edges around the teeth, an open U-shaped petiole sinus, short teeth with convex sides, a weak anthocyanin coloration of veins, and on the lower side of the leaves, a low density of erect hairs,
- the female flowers,
- the very small, round-shaped berries, with a blue black skin,
- the browny grey woody shoots with darker nodes.

Evolution of mother vine surfaces

Year	1945	1955	1965	1975	1985	1995	2005	2015
ha	41	315	283	339	201	57	69	69

Genetic profile

Microsatellite	**VVS2**	**VVMD5**	**VVMD7**	**VVMD27**	**VRZAG62**	**VRZAG79**	**VVMD25**	**VVMD28**	**VVMD32**
Allele 1	139	234	233	236	200	252	236	214	259
Allele 2	147	263	264	246	214	260	246	251	259

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Resistance to soil pests

5 BB is highly tolerant to the root form of phylloxera and to *Meloidogyne incognita* and *Meloidogyne hapla* nemtodes. On the other hand, its resistance to *Meloidogyne arenaria* nematodes is only moderate and it seems susceptible to *Agrobacterium vitis*.

Aptitudes for vegetative multiplication

5 BB wood production is very good (80 000 to 100 000 m/ha) and can even be considered as the largest producer among the most frequently used rootstocks. Its internodes are long with a medium diameter and the growth of lateral shoot buds is limited. 5 BB has good cutting and grafting capacities.

Clonal selection in France

In France, the 12 certified 5 BB clones carry the numbers 76, 77, 78, 79, 114, 127, 129, 149, 191, 259, 753 and 1106. Among those, the clones multiplied are:
- clone No. 76: 39 ares of mother vines producing certified material, in 2017,
- clone No. 78: 96 ares of mother vines producing certified material, in 2017,
- clone No. 114: 38 ha 77 ares of mother vines producing certified material, in 2017,
- clone No. 149: 25 ares of mother vines producing certified material, in 2017,
- clone No. 259: 6 ha 27 ares of mother vines producing certified material, in 2017.

Datas are extracted from: Les chiffres de la pépinière viticole, 2017, Datas and assesment of FranceAgriMer, may 2018.

Adaptation to the environment

This rootstock resists up to 35% of "total" limestone, 20% of "active" limestone and an IPC of 40. Its resistance to iron chlorosis is moderate to good. 5 BB is also adapted to humid conditions and particularly to sandy soils.

Interaction with the graft and production objectives

Generally speaking, 5 BB confers a very high vigor to the grafts and tends to delay the maturity. It is sometimes incompatible with some varieties (for example: Cabernet franc, Cabernet-Sauvignon, Colombard, Sauvignon) particularly when they carry the grapevine leafroll-associated virus 2 (GLRaV-2). In the event of a grapevine fanleaf virus infection, 5 BB clearly shows the presence of endocellular cords in the wood vessels. In terms of production, this rootstock, which is sometimes used to replace missing plants, tends to favor alternating phenonema and irregular results depending on the year. 5 BB sometimes induces the production of fruits with low sugar and polyphenol contents.

Bibliographic references

- Catalogue des variétés et clones de vigne cultivés en France. Collectif, 2007, Ed. IFV, Le Grau-du-Roi, France.
- Documentary collections of the Centre de Ressources Biologiques de la Vigne de Vassal-Montpellier, INRAE - Montpellier SupAgro, Marseillan, France.
- Cépages et vignobles de France, tome 1. P. Galet, 1988, Ed. Dehan, Montpellier, France.