Cultivation of PIWI grape varieties

Description of the measure

PIWI vines (german: PIlzWIderstandsfähige Rebsorten) have a high resistance to fungal diseases such as powdery and downy mildew and allow a significant reduction in the use of pesticides. The robust and innovative grape varieties are thus an obvious alternative to conventional intensive plant protection. Depending on the age and economic viability of the vineyards, good consideration should be given to whether a PIWI variety can be considered for the area when planting a new vineyard. When choosing the newer varieties, the marketing of the not yet well-known wine varieties should be considered.

Examples of PIWI wine types are: Regent, Baron, Monarch, Prior, Johanniter, Muscaris, Bronner, Solaris, Cabernet Cortis, Cabernet Carbon, Cabernet Carol and Cabernet Cantor.

Effects on biodiversity

In viticulture, considerable amounts of plant protection products are applied against powdery mildew fungi in order to prevent possible fungal infestation and to safeguard the harvest. Due to the resistance and robustness of PIWI varieties against plant diseases, the use of chemical synthetic pesticides (esp. copper sulfate & fungicides with particular risk potential) can be greatly reduced, in some cases treatment with baking soda and clay is sufficient.

Further positive effects

Saving on plant protection treatments reduces soil pollution and strengthens the complex soil life of plants, fungi and microorganisms. Depending on the variety and rainfall conditions, two to four treatments in the period before to after flowering are sufficient to ensure high yield security and quality together with the plant's natural defenses. This extensification in crop protection not only results in lower crop protection costs, it also increases the credibility of organic production thanks to the complete absence of copper.

In addition, vines are bred for later budbreak so that they do not tend to flower and ripen earlier and earlier with climate change. This should be considered when planting new vines to adapt to climate change.

Sources: *piwi-international.de/ueber-piwi/piwi-nachhaltig/#oekologisch* • *sibbus.com/de/sortenbeschreibungen/piwi-sorten.html* • *www.delinat.com/piwi.html*