



Success factors for introducing resistant grapevine cultivars



ROBUST Grape Cultivars,

**an obvious
alternative
to plant
protection!**



Viticulture with an ecological orientation has a very close relationship with disease tolerant or PIWI cultivars.

„**PIWI**“ is a short form for the German word „**pilzwiderstandsfähig“ meaning: disease tolerant.**



Johanniter

**Some examples for
disease tolerant „PIWI“
cultivars:**



Johanniter

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Regent



Johanner

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Regent



Garant



Baron

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Helios

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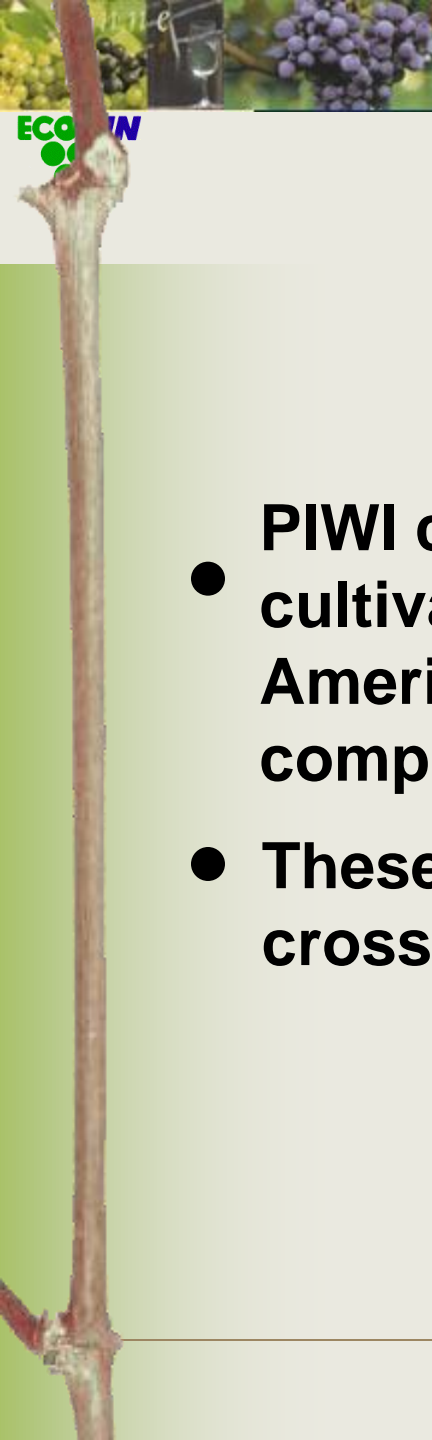
Helios



Cabernet Cortis

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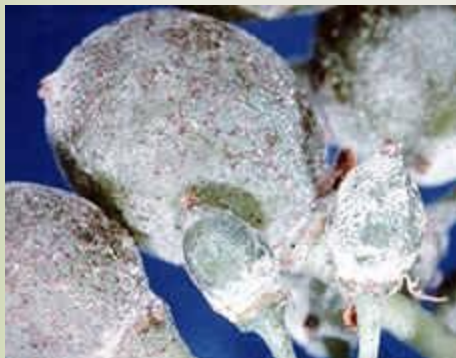
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- **Without the aid of gene transfers!**

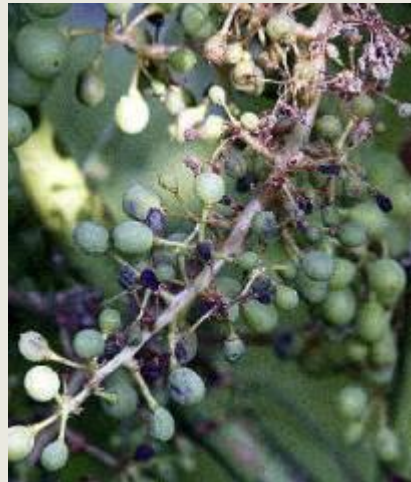
Why do grapes (vines) get sick?

Downy and powdery mildew were not common in Europe. They were introduced in the 19th century and spread rapidly.

**Powdery Mildew
(*Oidium*)**



**Downy Mildew
(*Peronospora*)**



Why do grapes (vines) get sick?



Total crop-loss by Müller-Thurgau

Since this time traditional cultivars need to be treated with fungicides 6-16 times during the growth-season.

No treatments against fungal infections, can lead to total crop-loss!

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- **It's possible to save the environment against a lot of plant protection products (pesticides)!**
- **The amount of work in the vineyards is significantly reduced during the vegetation period !**
- **In these vinyard it's possible to install a rich, healthy and complete ecological system!**

Robust grape cultivars

For an organic viticulture ...



... to live in harmony with nature !

Current situation at the market

- **Wine is an agricultural product where consumers pay extremely attention to the variety**
- **Especially consumers in the German-speaking communities stick to specific varieties.**
- **At first the average consumer is normally skeptical about Cuvees and unknown varieties.**
- **This is particularly true for wines which are purchased in supermarkets and discounters.**
- **This concerning all new varieties which are unknown yet, especially new breedings like „PIWIs“!**

Consequences for the market

- **Wines made from PIWIs normally end as leftovers in the supermarket.**
- **Only an active, personal promotion of new breedings result in a request by consumers.**
- **This strategy is especially successful by farmer-to-consumer direct marketing..**
- **Thusly many PIWIs have found their way to consumers.**
- **However PIWIs are still unknown for the majority of wine-consumers.**

How do we go on:
„PIWI-International“ has following goals:

- Encourage and promote the exchange of scientific and practical findings concerning disease tolerant grape cultivars nationally and internationally.
- Promotion and assistance in growing such varieties with the goal of increasing the number of growers.
- Provide a forum for discussion and exchange of experiences and ideas for all levels. Practical growers, extension personal, consultants and researchers
- Consider the group as an information and exchange network for PIWI cultivars.

Something realistic at the end

Despite all efforts made by PIWI-International, the following topics are an urgent request considering the great benefits for the environment (less plant protection leads also to active soil protection ... and so on) and the good wine quality of these new breedings.

Requests:

1. Education from breeders (mostly state institutes,
2. Consumer organisations,
3. Environment organisations
4. Eco-associations

You may ask yourself, who is this organisation, which takes care of this big challenge?

This great idea of robust plants, within their excellent products, has to get conscious to the consumers, so that products will be requested.

The earlier, the better!