WHAT IF A RAIN OCCURS AFTER JULIETTA® APPLICATION?



> The rain application has no impact on the yeast quantity on fruits.

WHAT IF A WOUND OCCURS

If a rain event occurs more than 48h after Julietta[®] treatment, it is not necessary to renew the product application on the crop.



🗙 Day of the injury

- Injured then treated D0
- Treated then injured D0
- Treated then injured D1
- Treated then injured D8

The number of yeasts increases after a wound, preventing disease development. Fruits are protected even if a wound occurs after Julietta® spraying

SHELF LIFE





siscentrol solution Compatible **A residue**

Program

Technical features GRAPEVINE

Julietta[®] is a biofungicide based on living yeast *Saccharomyces cerevisiae* strain LAS02. This yeast strain has been selected for its survival and quick development capabilities through nutritive and spatial competition against Botrytis. Its natural origin makes it an environment-friendly solution compatible with a modern agriculture respectful of the environment, consumers and farmers. Julietta[®] can be used in conventional and organic farming.



* active substances exempted from MRLs are generally accepted in the notebooks load type zero residue / no residue. Check with your certifying agency.



WHY **PROTECTING THE WOUNDS** IS ESSENTIAL?

Botrytis develops into injured plant tissues.

Those can be tiny wounds, not noticeable visually and are due to many different causes (insects bites, hail, equipment, ...) It happens every day in the field



Development of *Botrytis cinerea* depending on temperature and pH (AUC)



Grape berries inoculated with botrytis - lab experiement

WHAT MAKES THE JULIETTA® YEAST SACCHAROMYCES CEREVISIAE LAS02 AN EFFECTIVE BARRIER AGAINST BOTRYTIS?

Julietta[®] yeast is a robust strain that thrives in difficult field environmental conditions. Saccharomyces *cerevisiae* strain LAS02 has been selected for its properties to colonize and survive in aerobic conditions.

As a unicellular microscopic mushroom (6-8 microns small), it can colonize plants micro wounds.



Growth speed of different yeasts depending on temperature, at pH 7 (DO units/h)



Julietta[®] yeasts grow in a **wider range of temperature, faster that commercial competitive yeasts.** Julietta[®] yeasts **thrive in wider ranges of pH and temperatures than Botrytis.**

Julietta® covers the full range of Botrytis growing conditions.

Colonies of Saccharomyces cerevisiaie strain LAS02

Preventive mode of action with no cross resistance.

Spatial and Nutritive competition against Botrytis.

Julietta[®] preventively acts by spatial and nutritive competition.

The speed of development of *Saccharomyces cerevisiae* strain LAS02 prevents disease infections by protecting fruits, flowers and wounds (pruning wounds, insect bites, micro-wounds, weakened parts of the plant...) which are gateways for Botrytis.

WOUNDED BERRIES INOCULATED WITH BOTRYTIS, UNTREATED

Grape berries inoculated with botrytis - D14

WOUNDED BERRIES INOCULATED WITH BOTRYTIS, TREATED WITH JULIETTA

Spatial and Nutritive competition against Botrytis. Julietta® prevents Botrytis development by protecting wounds.