

Promising results of the Biocontrol-Grapevine application despite a very strong "downy mildew year"

Chassieu (France), July 29th, 2021 - 5:45 p.m. - AMOÉBA (FR0011051598 - ALMIB), producer of a biological biocide capable of eliminating bacterial risk in water and human wounds, and of a biocontrol product for plant protection, still in the development phase, announces the results of the third field trial campaign against grapevine downy mildew and powdery mildew of its biocontrol solution, in a very strong mildew year

A difficult meteorological context very favourable to downy mildew.

In France, after heavy frosts in April, May was relatively cold and the few rains did not cause any contamination.

A rise in temperatures was observed in June until a short period of heat wave. From 10-15 June, episodes of heavy rain followed one another, causing sudden and very important contaminations on leaves and bunches in many regions: Bordeaux, South-West more generally, Champagne, East, as well as Burgundy and Beaujolais to a lesser extent.

Thus, significant and sometimes unprecedented damage was observed in these different regions.

Faced with these exceptional disease pressure conditions, even the products considered to be the most effective against downy mildew were put to the test. Copper (Bordeaux mixture), at its full rate of 750 g/ha per application, applied every 7 days, was regularly ineffective, showing only insufficient protection in many trials, contrary to what was observed in previous years.

Nevertheless, such conditions are favourable for testing products under development.

Results of the grapevine downy mildew field trials

In 27 field trials in 8 European countries, the following points could be confirmed by Amoeba:

- Extreme conditions of downy mildew attack are too difficult for 100% biocontrol treatment programs : all registered reference biocontrol products and Amoéba's experimental products could only provide a small initial protection and then were insufficiently effective.
- On the other hand, in all situations where the rains at the end of June were a little less sustained and less repeated, and despite significant disease pressure, the experimental products of Amoeba confirmed their effectiveness, frequently at the level of copper.
- Moreover, the associations between the experimental products of Amoeba and a reduced dose of copper (150 g/ha, i.e. 1/5 of the maximum dose), have once again ensured sufficient protection, at least equivalent to that of a copper program at a practical dose of about 3000

g/ha/year, in many European vineyards: South-East of France, Muscadet, Italy (Friuli and Piedmont), North Portugal, Spain (Galicia), Hungary, Bulgaria.

- The formulations of Amoéba's experimental products have been improved again this year: several have been compared and a SC (suspension concentrate) formulation, newly tested during this field trial campaign, proved to be superior to the others in 80% of cases.

Trials for future marketing authorization applications require products to be tested on their own throughout the season to assess their intrinsic efficacy. This type of protocol, which is not representative of wine-growing practice, has enabled us to confirm, for the third consecutive year in the field, the activity of the active substance, but also to verify that in the event of very high downy mildew pressure, it is advisable to opt for conventional protection in addition to biocontrol products.

The results of the strategy of combining Amoeba's experimental products with copper, which allows for a reduction in the amount of copper used per hectare to around 1,500 g/year, are once again very encouraging in view of the regulatory review of copper at European level (scheduled for 2026), which could lead to a reduction in the authorized dose (today 28 kg of copper per hectare over a period of seven years is authorized, i.e. 4,000 g/ha/year smoothed over 7 years).

"In this difficult year, Amoéba's experimental products confirm their effectiveness, their potential to reduce chemical fungicides, and their good complementarity with a reduced dose of copper," says Jean Luc SOUCHE, Biocontrol Business Developer of Amoéba.

Very promising results on powdery mildew

After an interesting first trial in 2019 (no internal experimentation in 2020), a few trials were conducted on powdery mildew on grapes in France and Italy. All the contaminated trials show a very clear effectiveness of Amoéba's experimental products, reaching 90% effectiveness on bunches in a trial where the disease intensity is high, i.e. an effectiveness almost equivalent to that of sulphur under the same conditions.

"These good results, which will be the subject of a large confirmation trials program in 2022, could support a marketing authorization application against this disease. Such a versatility of downy mildew and powdery mildew in the same biocontrol product would be an important competitive advantage," says Jean Luc SOUCHE, Biocontrol Business Developer of Amoéba.

As announced in April 2021, Amoeba is currently conducting a large-scale cereal trial campaign and will report the results as soon as efficacy and yield data are available.

About AMOEBA:

Amoéba's ambition is to become a major player in the treatment of bacterial risk in the fields of water, healthcare and plant protection. Our biological solution is an alternative to chemical products widely used today. Amoéba is currently focusing on the market of industrial cooling towers estimated at €1.7Bn (1) on a global chemical

biocide market for water treatment, evaluated at €21Bn (2) and on the biocontrol market for plant protection estimated globally at €1.6Bn (4). In the future, the Company is looking at developing new applications such as chronic wound care, estimated at € 751 million (3) in the USA. Sales of associated products with healthcare, biocides and crop protection are subject to the Company being granted local regulatory market authorizations. The Company is currently in a trial phase for biocidal and plant protection applications and does not market any products.

Created in 2010, based in Chassieu (Lyon, France) with a subsidiary in Canada and in the United States, Amoéba is quoted on Euronext Growth. The Company is a member of the BPIfrance Excellence network and is eligible for the PEA-PME SME equity savings plan setup. More information on www.amoeba-nature.com.

(1): Amoéba data combined from sources: DRIRE 2013, Eurostat, ARHIA 2013

(2): Sources combined by Amoéba from water treaters, Freedonia, Eurostat et MarketsandMarkets

(3): BCC Research, "Markets for Advanced Wound Management Technologies," Wellesley, MA, 2017

(4): Biopesticides Worldwide Market 2013, CPL, Wallingford, UK

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