

Lattes, le 10/11/92

**EFFICIENCY OF 6 FONGICIDS AGAINST PLASMAPORA VITICOLA (DOWNY MILDEW) IN ORGANIC VITICULTURE**

**SUMMARY**

6 fungicides were tested in 1992 : 4 are currently used in organic farming in France (but not officially homologated as fungicides), one is a new formulation which should be homologated as fungicide soon, the last one is ULMASUD ( BIOFA) a fungicide currently used in organic farming in Germany -(Nota : confidentiality on the 5 first products must be kept by contract with the firms).

They were compared with copper sulfate (bouillie bordelaise) and no treatment witness in two trials :

- First trial (on-field trial) : in an organic vineyard (since 1966), a bloc trial with 4 repetitions of 10 stocks plots ; CEB protocole ; 6 fungicides + bouillie bordelaise + witness.

Second trial (inoculation trial) : bloc trial with 6 repetitions of 3 stocks plots ; mildew inoculation (on the 5/22/92) and artificial water aspersion if necessary ; CEB protocole ; 4 fungicides + bouillie bordelaise + witness.

In 1992, downy mildew was very virulent in both trials and destroyed most of the grapes and leaves on non treated plots.

Statistical variance analysis showed that amongst the 6 fungicides tested, only one (1575 g/ha copper) had an efficiency comparable to bouillie bordelaise (3000 g/ha copper).

Another (1000 to 1400 g/ha copper) was not efficient enough, but is considered to be sufficient with lower downy mildew pressures.

The four other (amongst which ULMASUD) were not significantly different from the non treated witness. ULMASUD is one of them. These trials confirm trials realized in 1991 on brumization site, where protection against downy mildew by ULMASUD was judged very deficient.

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Key words : downy mildew, fungicide, viticulture, Languedoc - Roussillon, organic farming.