



Data provided by:

Karin Watson, BioCult
Biological Culturing & Research Laboratory
1213 Kaipaki Road, RD 3, Cambridge, Tel/Fax: 07 - 823 3494
E-Mail: K.Watson_BioCult@xtra.co.nz

Expel Test No. 2: Expel Applied against Grape Downy Mildew

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Test Method: In Vitro - Microscopy:

Grape downy mildew sporangia were washed off freshly sporulating infected grape vine leaves, to make up an aqueous sporangia suspension (~ 100000 sporangia/ml). Expel was then added to small volumes of that sporangia suspension to produce required test rates of 120, 80, 40, 20, 10, 5 and 2.5 ppm. Similarly, a test suspension was prepared with Ridomil at 100 ppm.

For assessment, the percent of germinated (empty) sporangia was investigated under the microscope at 1.5 hours after test begin, and again at 6 hours. Furthermore, also the activity of germinated zoospores was assessed.

Results:

Tr. No.	Treatments	Conc.	Activity against Grape Downy Mildew: (<i>Plasmopara viticola</i>)			
			1.5 hours		1.5 hours	
			% Germinated (Empty) Sporangia	% Active Zoospores	% Germinated (Empty) Sporangia	% Active Zoospores
1	Expel	120 ppm	0	0	0	0
2	Expel	80 ppm	0	0	0	0
3	Expel	40 ppm	0	0	0	0
4	Expel	20 ppm	0	0	0	0
5	Expel	10 ppm	0	0	0	0
6	Expel	5 ppm	4%	0 (all bursting)	8%	0 (all have burst)
7	Expel	2.5 ppm	20%	4%	45%	0 (all have burst)
8	Ridomil	100 ppm	0	0	0	0
9	Untreated		50%	100%	50%	100%

Conclusions: Expel has demonstrated excellent activity against Grape downy mildew in direct solution contact. An in vivo follow up is highly recommended.

Biotronics Limited

Unit 1, Moreton Farm, Moreton Eye, Leominster, HR6 0DP, UK
Telephone +44 (0)1568 612402 Fax: +44 (0)1568 616088 e-mail: sales@biotronics.net
Web: www.biotronics.net