4.7. FIELD EXPERIMENT: 19M/UNCINE/CHAR/P6b/ISA/ORI-47

Conclusion on the last page

4.7.1. Purpose

Efficacy evaluation of Salifort against powdery mildew on grapes.

4.7.2. Trial and report status

Trial execution according to the regulations of Good Experimental Practice: NO
Trial report according to the regulations of Good Experimental Practice: NO
Original data file: 19M/UNCINE/CHAR/P6b/ISA/ORI-47-v1.xlsm

4.7.3. Location of the experiment

Location: 3800 Kerkom (Sint-Truiden), Belgium

4.7.4. Plot information

Crop spacing:	2,00 x 1,00 m
Replicates:	4
Number of vines:	4
Treated height:	1,50 m
Vine width:	0,30 m
Applied surface:	13,20 m²
Leaf wall area orchard:	15000 m²/ha soil surface

4.7.5. Crop identification

Type of crop:	grapes
Variety:	Chardonnay
Year of planting:	2015

4.7.6. Dates of application, weather conditions and phenological stages

	Date	Number of days between applications	Temperature (°C)	Relative humidity (%)	Sunshine	Rainfall (l/m²) between applications	Phenological stage (BBCH)
A	13/05/19		15,0	45	14h17		60
B	20/05/19	7	14,0	85	0h00	13,4	61
C	28/05/19	8	16,0	65	2h02	4,7	61
D	5/06/19	8	19,0	72	4h46	6,9	73
E	13/06/19	8	19,0	54	10h55	86,6	73
F	20/06/19	7	20,0	62	5h04	20,2	X
G	1/07/19	11	22,0	56	12h58	1,2	X
H	9/07/19	8	17,0	61	12h50	0,1	X

4.7.7. Experimental objects, dose rates and water volume

Obj. No.	Fungicide	Formulation	Active ingredient g/ha LWA	Formulated product g, ml/ha LWA
1.	untreated			
2.	Kumulus A	80,0 WG	4800,0	6000,0
	Flint BC	50,0 WG	50,0	100,0
	Fortress DE	500,0, SC	30,0	60,0
	Topaz FGH	100,0 EC	14,0	140,0
3.	Salifort ABCDEFGH	37,5 WG	875,0	2333,3
4.	Salifort ABCDEFGH	37,5 WG	1500,0	4000,0
5.	Kumulus A	80,0 WG	4800,0	6000,0
	+ Salifort	37,5 WG	875,0	2333,3
	Flint BC	50,0 WG	50,0	100,0
	+ Salifort	37,5 WG	875,0	2333,3
	Fortress DE	500,0, SC	30,0	60,0
	+ Salifort	37,5 WG	875,0	2333,3
	Topaz FGH	100,0 EC	14,0	140,0
	+ Salifort	37,5 WG	875,0	2333,3

The fungicides were applied with a water volume of 1000 l/ha LWA. Per plot, the water volume was 1,32 l (13,20 m² LWA) + an overage of 15%.

4.7.8. Results

Table 50: Powdery mildew on the leaves – Chardonnay, Sint-Truiden
19M/UNCINE/CHAR/P6b/ISA/ORI-47
Observation date: 22/07/19

Obj. No.	Fungicide	Formulation	Active ingredient g/ha LWA	% Infestation Plot % I	Plot TH6	Mean % I	Mean TH6	Efficacy ABB
1.	Untreated			26,0	10,0	39,8	21,6 b	
				39,0	18,3			
				29,0	16,8			
				65,0	41,3			
2.	Kumulus A	80,0 WG	4800,0	11,0	2,8	10,5	4,0 a	81,5
	Flint BC	50,0 WG	50,0	5,0	1,0			
	Fortress DE	500,0, SC	30,0	15,0	6,3			
	Topaz FGH	100,0 EC	14,0	11,0	5,8			
3.	Salifort	37,5 WG	875,0	5,0	1,3	8,0	2,7 a	87,5
	ABCDEFGH			14,0	4,0			
				1,0	0,2			
				12,0	5,3			
4.	Salifort	37,5 WG	1500,0	6,0	1,8	7,3	2,5 a	88,4
	ABCDEFGH			5,0	1,2			
				10,0	4,0			
				8,0	3,0			
5.	Kumulus A	80,0 WG	4800,0	10,0	4,0	5,0	1,6 a	92,5
	+ Salifort	37,5 WG	875,0	6,0	1,7			
	Flint BC	50,0 WG	50,0	3,0	0,5			
	+ Salifort	37,5 WG	875,0	1,0	0,3			
	Fortress DE	500,0, SC	30,0					
	+ Salifort	37,5 WG	875,0					
	Topaz FGH	100,0 EC	14,0					
	+ Salifort	37,5 WG	875,0					

Table 51: Powdery mildew on the leaves – Chardonnay, Sint-Truiden
19M/UNCINE/CHAR/P6b/ISA/ORI-47
Observation date: 06/08/19

Obj. No.	Fungicide	Formulation	Active ingredient g/ha LWA	% Infestation Plot % I	Plot TH6	Mean % I	Mean TH6	Efficacy ABB
1.	Untreated			90,0	31,0	94,3	41,6 c	
				93,0	36,5			
				97,0	47,3			
				97,0	51,7			
2.	Kumulus A	80,0 WG	4800,0	11,0	2,7	25,9	7,5 ab	81,9
	Flint BC	50,0 WG	50,0	9,0	1,8			
	Fortress DE	500,0, SC	30,0	40,0	12,7			
	Topaz FGH	100,0 EC	14,0	43,6	13,0			
3.	Salifort	37,5 WG	875,0	34,0	8,3	32,8	11,1 b	73,4
	ABCDEFGH			38,0	12,8			
				33,0	15,2			
				26,0	8,0			
4.	Salifort	37,5 WG	1500,0	16,0	4,2	23,5	6,5 ab	84,4
	ABCDEFGH			24,0	5,0			
				24,0	7,3			
				30,0	9,5			
5.	Kumulus A	80,0 WG	4800,0	11,0	3,0	17,5	4,5 a	89,2
	+ Salifort	37,5 WG	875,0	34,0	9,8			
	Flint BC	50,0 WG	50,0	9,0	1,5			
	+ Salifort	37,5 WG	875,0	16,0	3,7			
	Fortress DE	500,0, SC	30,0					
	+ Salifort	37,5 WG	875,0					
	Topaz FGH	100,0 EC	14,0					
	+ Salifort	37,5 WG	875,0					

Table 52: Powdery mildew on the fruits – Chardonnay, Sint-Truiden
19M/UNCINE/CHAR/P6b/ISA/ORI-47
Observation date: 17/09/19

Obj. No.	Fungicide	Formulation	Active ingredient g/ha LWA	% Infestation Plot % I	Plot TH6	Mean % I	Mean TH6	Efficacy ABB
1.	Untreated			86,6	57,7	94,9	78,1 d	
				93,1	70,6			
				100,0	83,9			
				100,0	100,0			
2.	Kumulus A	80,0 WG	4800,0	14,4	6,1	35,7	18,1 b	76,8
	Flint BC	50,0 WG	50,0	17,1	7,7			
	Fortress DE	500,0, SC	30,0	58,1	28,8			
	Topaz FGH	100,0 EC	14,0	53,1	29,9			
3.	Salifort	37,5 WG	875,0	50,5	34,0	57,3	38,7 c	50,5
	ABCDEFGH			51,1	33,8			
				41,0	24,3			
				86,5	62,7			
4.	Salifort	37,5 WG	1500,0	13,8	7,4	29,7	15,1 b	80,6
	ABCDEFGH			24,7	11,9			
				17,3	7,6			
				62,9	33,4			
5.	Kumulus A	80,0 WG	4800,0	12,5	6,5	10,9	5,2 a	93,3
	+ Salifort	37,5 WG	875,0	5,2	2,3			
	Flint BC	50,0 WG	50,0	17,7	8,3			
	+ Salifort	37,5 WG	875,0	8,2	3,7			
	Fortress DE	500,0, SC	30,0					
	+ Salifort	37,5 WG	875,0					
	Topaz FGH	100,0 EC	14,0					
	+ Salifort	37,5 WG	875,0					

4.7.9. Conclusion of the trial 19M/UNCINE/CHAR/P6b/ISA/ORI-47

The results indicate that Salifort has an efficacy towards powdery mildew on grapes. As well on the leaves as on the fruits efficacies >50% were observed after season long treatments with Salifort towards powdery mildew. At the second assessment on the leaves, it is noticed that the highest dose rate of Salifort tested in this trial has a higher efficacy as compared to the lower dose rate. There is a trend for a dose rate response but this is not significantly different expressed. At the assessment on the fruits the dose effect is more pronounced with significantly higher efficacies obtained with the highest dose rate of Salifort. Here, Salifort obtains the same efficacy as the standard treatment schedule in this trial (not all the best products were included here). When Salifort at the lowest dose rate tested is used in a tank mix with the other products of the reference treatment schedule higher and sometimes even significantly better efficacies are obtain as compared to the reference treatment schedule without Salifort. So adding Salifort results in an additional efficacy in this trial. Overall, Salifort has a good efficacy towards powdery mildew on grapes. During the early start of the season, the lowest dose rate can be used to control powdery mildew, later in a season, when Salifort is not applied in a tank mix with a chemical product, higher dose rates can be used based on the better efficacy obtained on grapes.