NZ Walnut Blight

Spraying 2006 / 2007

2006/2007 Objective 2

Factor	Treatment	% Fruit Infected
Climate Model*	Continuous	76%
	NZ Model	69%
Product	Mankocide	76%
	Liquicop plus Mancozeb	70%
	Copper-Methionine	87%**
Rate*	Full	74%
	Half	72%
Aminofit*	AminoFit	74%
	None	72%
Control		95%**

2006/2007 Objective 1

Factor Tested	Treatment	B300	Meyric
Climate Model	NZ Model	45%	31%
	Adjusted NZ Model	25%	44%
Mankocide Rate	Full	34%	39%
	Half	36%	36%
Mancozeb	Extra	41%	35%
	No extra	29%	40%
Nu-Film	Nu Film	37%	38%
	None	33%	37%
Control		78%	77%

Cost and benefit analysis of 2006-07 trials

Treatment	Budburst Spraying	No. of Sprays	Total Cost[A]	Copper (kg/Ha)	Benefit (Orch. C)[B]	Benefit (Orch. A)[B]
Mankocide full rates (300g/100L)						
Calendar	Weeks 1-4	11	$1,386.67	9.4		$1010.63
NZ-Cum	Weeks 1-4	8	$ 976.67	5.7	$2218.13	$1220.63
Ad-NZ-Cum	Weeks 1-4	8	$ 976.67	5.7	$1811.25	
Mankocide half rates (150g/100L)						
Calendar	Weeks 1-4	11	$1,078.33	4.7		$ 971.25
NZ-Cum	Weeks 1-4	8	$ 768.33	2.9	$2598.75	$1470.00
Ad-NZ-Cum	Weeks 1-4	8	$ 768.33	2.9	$1640.63	
Budburst only[B]		4	$ 384.17	1.4		

The effect of Aminofit on walnut blight on young walnut trees

Results for Cultivar Meyric

Treatment	Sprays	Additive	% fruit infected†	
1	Week 1,2*,3,4,6,8	Aminofit	11.2	a
2	Week 2*,4,6,8	Aminofit	17.5	bc
3	Week 1,2,3,4,6,8	None	11.9	ab
4	Week 2,4,6,8	None	19.7	c

Results for Cultivar Rex

Treatment	Sprays	Additive	% fruit infected†	
1	Week 1,2*,3,4,6,8	Aminofit	5.6	a
2	Week 2*,4,6,8	Aminofit	5.0	a
3	Week 1,2,3,4,6,8	None	3.7	a
4	Week 2,4,6,8	None	4.5	a

*Week 2 sprays were sprayed without Aminofit

†treatments sharing the same letter were not statistically significantly different from each other ($p>0.05$)

Results for testing of Aminofit and climate based sprays on established trees of three cultivars

Cultivar	Aminofit	Spray	% Infected (Jan)
Dublins Glory	Yes	Climate 1	30.3%a
	Yes	Continuous	29.6%a
	No	Climate 1	24.2%a
	No	Continuous	28.1%a
	No	Control	65.7%a
Meyric	Yes	Climate 1	15.2%a
	Yes	Continuous	31.7%a
	No	Climate 1	30.3%a
	No	Continuous	32.6%a
	No	Control	87.8%b
Stans (B300)	Yes	Climate 1	26.7%a
	Yes	Continuous	43.0%a
	No	Climate 1	30.4%a
	No	Continuous	20.5%a
	No	Control	80.5%b

Summary of Recommendations

- Apply Mankocide (or Bordeaux Mixture for organics)
- Rate of 150 (or 300) grams per 100 L
- Sufficient Spray Volume to achieve coverage
- Coverage includes higher part of canopy
- May be some benefit from Aminofit etc but limited evidence
- Comprehensively Spray at Budburst
- Then spray strategically especially before rain
- More checking of simplified climate trigger