

Subject: (Fwd) Powdery mildew on apple
Date: Wed, 20 Sep 2000 11:19:59 +1200
From: "Peter Wood" <pwood@hort.cri.nz>
To: Pete.deJong@xtra.co.nz

Pete

to keep you up to date with
whats happening with our CROWN funded work with Ross Marshall
in Central Otago
I will also evaluate the following central Otago treatments
in HB
but would add some Protector & Treet
treatments

I have attached a file to show
how prelim.
work went 2 yrs ago
regards
peter

----- Forwarded message follows -----

From: Peter Wood <pwood@hort.cri.nz>
To: "Ross Marshall" <rmarshall@hort.cri.nz>
Subject: Powdery mildew on apple
Date sent: Wed, 20 Sep 2000 10:35:25 +1200

Hi Ross

So treatments: per 100litres
1] Lime Sulphur 1% + Kumulus 150g
2] Kocide2000 25g + Kumulus 150g
3] Protector 2% + Kumulus 150g
4] Protector 2% + Baking Soda 500g
5] Kumulus 150g
6] Bioacumen
= 6 tmts x 5reps. 2 tree plots of apple cvr Liberty

= 50litres of mix will cover the 10 trees with max of 8 applications,
total
= 400litres of each treatment.

regards peter

----- End of forwarded message -----

**HortResearch Goddard lane
1998-99**

Full Season fungicide programme

percent canopy area infected with powdery mildew

per 100 litres

Liberty		Royal Gala	
1%LS/Kumulus 150g	0.7	Kumulus 150g/Protector 2%	1.4
Kumulus 150g/Protector 2%	0.7	Kocide 25g/Protector 2%/SBC	1.6
1% LimeSulphur	0.8	1%LS/Kumulus 150g	2.9
1%LS/Kocide 25g	1.5	1%LS/Kocide 25g	3.5
Kumulus 150g/Kocide 25g	1.5	Kocide 25g/Protector 2%	3.7
Kocide/Oil 0.25% /SBC 0.5%	1.6	1% LimeSulphur	3.9
Protector 2%	1.6	2% Limesulphur	4.0
2% Limesulphur	1.7	1%LS/Slaked Lime 1.6	4.1
Kumulus 150g	1.8	Kocide/Oil 0.25%/SBC 0.5%	4.3
1%LS/Slaked Lime 1.6kg	2.2	Protector 2%	4.9
Kocide 25g/Protector 2%/SBC 0.5%	2.2	Kumulus 150g/Kocide 25g	5.2
Kocide 25g/Protector 2%	2.4	Kumulus 150g	6.0
Kocide 25g	3.8	Kocide 25g	9.5

1% LimeSulphur	3	6
1%LS/Kocide 25g	4	4
1%LS/Kumulus 150g	1	3
1%LS/Slaked Lime 1.6kg	10	8
2% Limesulphur	8	7
Kocide 25g	13	13
Kocide/Oil 0.25%/SBC 0.5%	7	9
Kocide 25g/Protector 2%	12	5
Kocide 25g/Protector 2%/SBC 0.5	11	2
Kumulus 150g	9	12
Kumulus 150g/Kocide 25g	5	11
Kumulus 150g/Protector 2%	2	1
Protector 2%	6	10

under 2% canopy area infected

ROYAL GALA

HortResearch Goddard lane



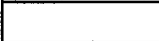


Full Season fungicide programme

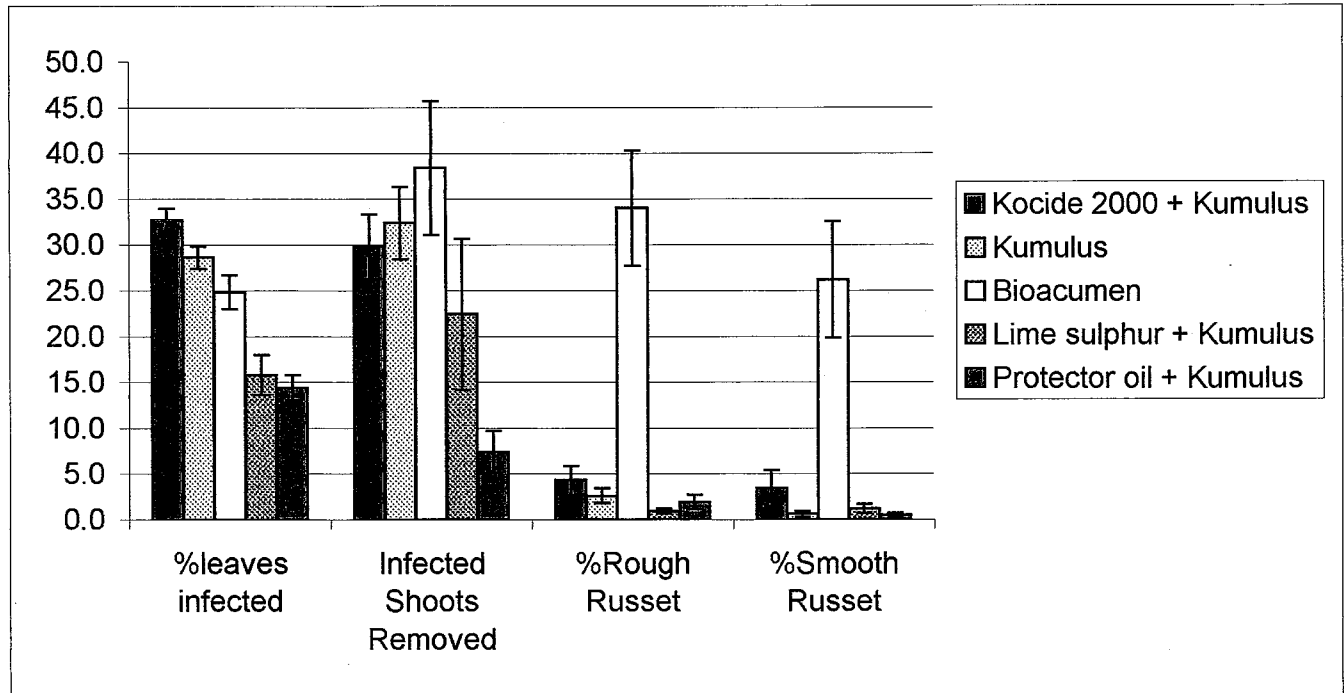
[1 = best control]

1998-99

	% leaf Scab	% Russet	% Fruit Scab harvest	% Fruit Scab storage	percent Storage rot	powdery mildew control ranking
Kocide/Oil 0.25% /SBC 0.5%		35	0	0	3.5	9
1%LS/Kumulus 150g		21	0.3	2	0.7	3
Kumulus 150g		18	0	1.3	0	12
2% Limesulphur		28	0.3	0.3	1.7	7
Kocide 25g/Protector 2%/SBC 0.5%		42	2	1.3	0.3	2
Kumulus 150g/Kocide 25g	1.3	22	0	0.3	0.7	11
Kocide 25g	1.3	21	2	1.3	0.7	13
1%LS/Kocide 25g	1.5	31	0.3	1	3	4
Kocide 25g/Protector 2%	1.5	24	0.3	1.3	0.3	5
1%LS/Slaked Lime 1.6kg	2	21	0.3	0.3	1.3	8
Kumulus 150g /Protector 2%	2.3	22	1	4.3	0.7	1
Protector 2%	2.3	28	14	20.3	3	10
1% LimeSulphur	2.8	25	1.3	0.7	1.7	6

 = under 1 % scab infection
fruit at harvest = under 1 % scab infection
 = under 1 % scab infection
stored fruit = under 1 % scab infection

		Infected			
		%leaves infected	Shoots Removed	%Rough Russet	%Smooth Russet
	Kocide 2000 + Kumulus	32.7	29.8	4.3	3.4
	Kumulus	28.6	32.4	2.6	0.6
	Bioacumen	24.8	38.4	34.0	26.2
	Lime sulphur + Kumulus	15.8	22.4	0.9	1.2
	Protector oil + Kumulus	14.4	7.4	1.9	0.5



Treatments	Rates / 100L		
	Lime sulphur + Kumulus	1.0L	150g
	Kocide 2000 + Kumulus	25g	150g
	Protector oil + Kumulus	2.0L	150g
	Kumulus	150g	
	Bioacumen	5.0L	

Ross Marshall
 Hort Research Clyde
 Protector apple: Pasky Mulder
 Trial results F.O.C. sample
 2000 - 2001 season
 Mixed with S in organics
 good P.M. control

Application dates

2-Oct	open cluster-pink	Full sun, light variable winds
11-Oct		Raining 30min after finish
19-Oct		Sunny and calm
26-Oct		Clear and calm
3-Nov		Clear and calm
10-Nov		Clear and calm
21-Nov		Overcast and calm
4-Dec		Overcast and calm
18-Dec		Sunny and calm

All overwintering primary infections cut out early spring 2000
Assessment of secondary infections made on 16 November
Harvest 20 March 2001, one tree per plot. Russet assessment
20 April terminal infections cut out and counted

SE	SE	SE	SE	SE
1.22		3.54	1.60	1.95
1.21		3.94	0.79	0.30
1.84		7.30	6.29	6.37
2.15		8.23	0.27	0.48
1.37		2.32	0.79	0.23