

AVG Retain trial**Kinnersley Dabinett****November 2001****Objective**

AVG, Retain, an ethylene blocking agent, sprayed just prior to harvest [November], to retard fruit maturation, delay fruit drop, and minimise build up of rots on the ground.

Spray trial

Seven trees of 6 yr old Dabinett were sprayed using a hand lance and knapsack in cool, damp, slow drying conditions.

Sprayed 13/10/01

Tops of the trees had poor coverage.

Rate

AVG at 1g/litre plus Silwet L 77 at 7ml/litre sprayed at 0.7 litres/tree approx.

Results

First fruit sample, 6 November [after 3 weeks]

2nd fruit sample, 20 November [after 5 ½ weeks]

1] Percentage rots in fallen fruit 6.11.01

[50% sampled from grass, 50% from soil below tree]

Treatment	nil	< 10%	10 – 50%	> 50%
Retain	40	21	29	10
Unsprayed	67	17	13	3

There appears to be more rots under AVG treated trees because there were proportionately less newly fallen fruit under these trees. Actual numbers of rots were probably less per tree.

2] Mean number of unharvestable rots left under trees at harvest 20.11.01

Fallen fruit from under all the trees was picked up prior to this date, but much of the rotten fruit was left behind, which gives some indication of the build up of rots.

Retain sprayed trees 6.25 rots/tree; unsprayed control 10.75 rots/ tree

3] Fruit retained on trees

AVG sprayed trees clearly retained much more fruit on both assessment dates.

Fruit/csa branch unit mean of 10 branches/treat

Treatment	6.11.01	20.11.01
Retain	5.72	3.90
Unsprayed	2.96	0.80

4] Fruit weight and % sugar content [mean of 14/10 fruit]

There were no real differences between treated and untreated fruit on the first assessment date.

Fruit continued to expand on the treated trees, and by the second date, 5 ½ weeks after spraying, AVG treated fruit was considerably heavier than unsprayed.

Fruit weight and % sugar content [mean of 14/10 fruit]

Fruit samples	6.11.01		20.11.01	
	Mean fruit weight [g]	Juice sugar as % sucrose	Mean fruit weight [g]	Juice sugar as % sucrose
Retain picked	102	14.5	116	14.7
Retain dropped	96	13.6	87	13.6
Unsprayed picked	104	14.3	99	14.0
Unsprayed dropped	103	13.8	78	14.2

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