

TRIAL DATA

T.A.S.C. Technical Advisory Services Company

Research 23/04/04

Fitofos K 'Plus' Scab control

Phosphites have been derived from phosphoric acid. They are considered to be phosphorus fertilisers with added micronutrients and which at the same time stimulate plant's natural defence mechanism against pathogen invasions, as well as a direct control of phytopathogenic fungi. In Brazil phosphites are being used for the control of scab (*Venturia inaequalis*), *Gloeodes pomigena*, *Schizothyrium pomi*, *Phytophthora cactorum*.

Fitofos K 'Plus' efficiently controls leaf scab on apples. No difference could be found with a fungicide mixture Captan SC+Score - 170 ml + 10 ml/100 l). Best control has been obtained with applications at 7 to 10 days interval. No difference could be found between 200 and 250 ml/100 l. Fitofos K 'Plus' (potash phosphite -40 % P_2O_5 and 20 % K_2O). Applications start at early greentip. Applications at 14 days interval were less effective.

In the case of fruit infections Fitofos K 'Plus' proved to be efficient. However, addition of a fungicide improved the control.

No russetting has been observed when Fitofos K 'Plus' has been applied

Application at 7 days intervals causes a slight chlorosis at the leaf edges and tip, without, however, having any negative effect on plant development.

Scab control. Efficiency of Fitofos K 'Plus' on Fuji

Treatments	Dosage (ml)	Interval (days)	scab intensity (%)	Russetting (%)

			Leaves	Fruit	
Control	-	-	27.1a	53.5a	2.9a
Fitofos K 'Plus'	200	7	0.3cd	5.8b	2.3
Fitofos K 'Plus'	200	10	0.6cd	12.4b	2.5a
Fitofos K 'Plus'	200	14	3.4b	12.8b	3.5a
Fitofos K 'Plus'	250	7	0.3d	7.0b	2.3a
Fitofos K 'Plus'	250	10	0.9cd	11.8b	2.3a
Fitofos K 'Plus'	250	14	1.3c	7.7b	2.7a
Captan SC + Score	170 + 10	7	0.1d	0.4c	3.0a

Percentage scab infection on Fuji

Treatments	Dosage (ml)	Interval (days)	Scab infection (%)		Avg. fruit weight (g)
			Leaves	Fruit	
Control	-	-	-	-	21.2b
Fitofos K 'Plus'	200	7	98.8	89.1	27.6ab
Fitofos K 'Plus'	200	10	97.7	76.8	30.1ab
Fitofos K 'Plus'	200	14	87.4	76.1	25.9ab
Fitofos K 'Plus'	250	7	98.8	86.9	32.6a
Fitofos K 'Plus'	250	10	96.7	77.9	27.1ab
Fitofos K 'Plus'	250	14	95.2	85.6	27.3ab
Captan SC + Score	170 + 10	7	99.6	99.2	28.3ab

Source

Boneti, José Itamar et al., 2002. Avaliação da eficiência do Fitofos K 'Plus' (Fosfito de Potássio), em diferentes intervalos de aplicação, no controle da sarna da marciara (*Venturia inaequalis*), Laudo: WIS2001FM1, 30 março de 2002. FITO Desenvolvimento e Produção Ltda. São Joaquim.