RED RASPBERRY (*Rubus idaeus* 'Meeker')
Grey mold; *Botrytis cinerea*

J. DeFrancesco and G. Koskela
2046 Cordley Hall
Oregon State University
Corvallis, OR 97331-2907

Evaluation of fungicides for control of grey mold fruit rot in raspberries, 2002.

This trial was conducted in a field of 13-year-old 'Meeker' raspberries at OSU's North Willamette Research and Extension Center near Aurora, OR. Experimental design was a randomized complete block with four replications of 8-plant plots for each treatment. Untreated plant rows, serving as buffers, separated the treated plant rows. Treatments were applied to the entire plant canopy with a CO_2 backpack sprayer equipped with a 3-nozzle (TeeJet 8002 flat fan) boom at 50 psi, at 50 gal/A of water. Surfactant was not added to any of the treatments. Plots were drip irrigated approximately two inches every seven days beginning 15 May and continuing until after all harvests. On 3 Jul and 11 Jul, fruit clusters were inspected for sporulation of *Botrytis* (preharvest or field rot). Phytotoxicity (necrosis, chlorosis or other signs of toxicity) was evaluated on 22 May, 6 Jun, and 21 Jun. On 8 Jul and 15 Jul, 50 ripe, healthy-appearing berries were harvested by hand (latex gloves worn and changed between treatments). Berries were placed in a moist chamber and incubated at room temperature of approximately 70° F. Berries were inspected daily for sporulation of *Botrytis cinerea* over a five day incubation period.

There was no evidence of *Botrytis* on preharvested fruit in any of the treatments nor signs of phytotoxicity on any of the evaluation dates (data not shown). At first harvest (8 Jul), plants treated with BAS 510 (boscalid), BAS 516 (boscalid + pyraclastrobin), TM-45002 (fenhexamid + captan), Elevate (fenhexamid) + Captan or Switch (cyrpodinil + fludioxonil) had significantly less postharvest rot caused by *Botrytis cinerea* than untreated plants and plants treated with Elevate or Topsin-M. At second harvest (15 Jul), plants treated with BAS 510, BAS 516, TM-45002, or Elevate + Captan had significantly less postharvest rot than untreated plants and plants treated with Elevate or Topsin-M. At both first and second harvests, all treated plants had significantly less postharvest rot than untreated plants.

		Incidence of *Botrytis* (%)[z]	
		1st Harvest	2nd Harvest
Treatment and rate/A	Time of application [x]	(8 July)	(15 July)
BAS 510 at 0.5 lb …….....	A, B, C, D, F ……..…..	5.5 a [y]	8.0 ab [y]
BAS 516 at 1.45 lb ……..…	A, B, C, D, F …….....	1.0 a	5.5 a
TM-45002 at 3.5 lb ……..……...	A, B, C, D, E ……..…...	11.0 a	10.0 ab
Elevate 50WDG at 1.5 lb ……..……..	A, B, C, D, F …..…..…	34.6 b	22.5 cd
Elevate 50 WDG at 1.0 lb + Captan 50 WP at 4.0 lb ….	A, B, C, D		
Elevate 50 WDG at 1.5 lb ……...	F ……...……...	6.0 a	5.5 a
Switch 62.5 WDG at 14 oz …….	A, B, C, D, F …...……	5.0 a	15.5 bc
Topsin-M at 1.0 lb ……..	A, B, C, D, E ……..…..	51.0 c	29.5 d
Untreated Check …….	None …….……	88.0 d	50.0 e

[z] Postharvest fruit rot after five days incubation

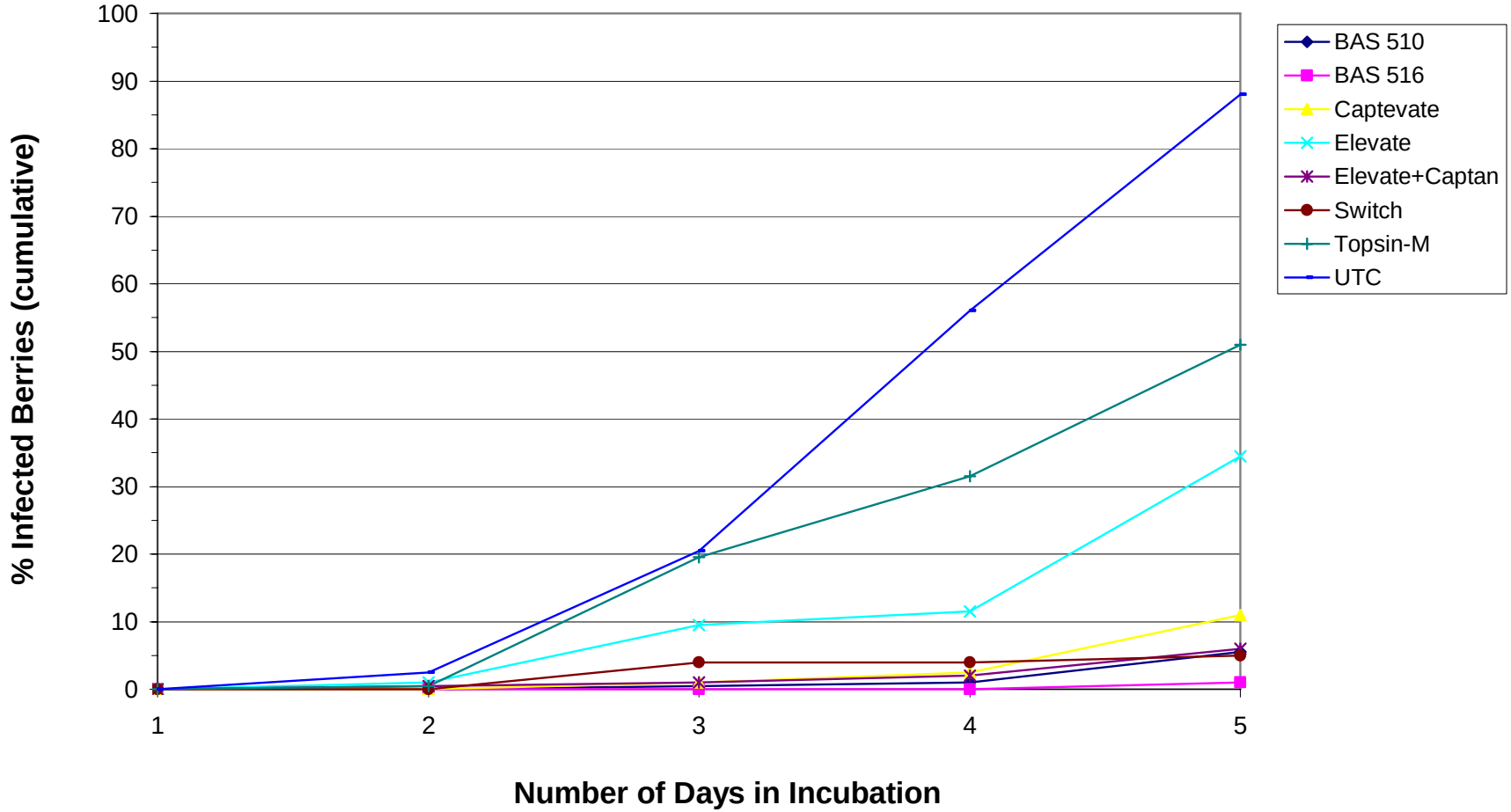
[y] Means followed by the same letter within a column do not differ significantly, based on Fisher's protected LSD (P≤0.05)

[x] Application dates: A = 20 May (1-5% bloom), B = 28 May (50% bloom), C = 4 Jun (50% bloom + 50% green fruit), D = 19 Jun (green fruit), E = 5 Jul (ripe fruit), F = 8 Jul (ripe fruit).

Treatments:
BAS 510 = boscalid
BAS 516 = boscalid + pyraclostrobin
TM-4002 = captan + fenhexamid
Elevate = fenhexamid
Switch = cyprodinil + fludioxinil
Topsin-M = thiophanate-methyl

2002 Botrytis Trial
'Meeker' Raspberries
NWREC, Aurora, OR

% Berries Infected with *Botrytis cinerea*
Harvest #1
(July 8, 2002)



2002 Botrytis Trial
'Meeker' Raspberries
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% Berries Infected with *Botrytis cinerea*
Harvest #2
(July 15, 2002)