

Update on Fruit Quality Issues: Peel Breakdown, and Decay Control

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Stem-end Rind Breakdown



Peel Pitting



Breakdown

- 2013-14



Results

- Fruit held 2 to 4 days at 73F (60% RH), washed & waxed (carnauba), and then held under ambient conditions on the air-conditioned room floor ~73F.

	Peel Breakdown (%)		
	Grapefruit 1	Grapefruit 2	Valencia
Control	40.3ab	46.2	33.9a
MKP	29.1abc	28.2	22.7ab
Mg	21.6abc	27.8	19.5b
MKP + Mg			2.6c
Vapor Gard® 1%	12.5c	17.6	10.7bc

2012 Peel Breakdown Studies

- Ruby Red grapefruit trees sprayed 12/21/11. Fruit harvested 1/30/12 and then stored for 50 days at ambient conditions (~73F, 60% RH).

Treatment	SERB (%)
Control (Water)	37 a
MKP	42 a
Wash Guard (1%)	27 b
PDS B-14 (1%)	26 b
Vapor Gard® (2%)	21 b

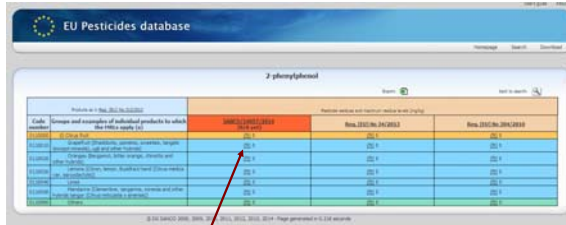
Decay Control Options

- Preharvest - No reliable replacement yet for Benlate or Topsin
 - Copper, Aliette, and Phosphorous acid products to reduce Brown rot
- Postharvest control measures
 - Good sanitation practices
 - Careful handling
 - Use of fungicide
 - Must be effective against latent organisms such as Diplodia and Anthracnose

Postharvest Fungicide MRLs

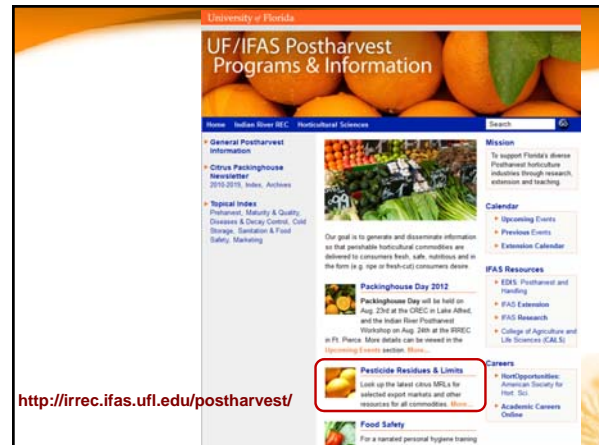
Chemical Name	U.S. (Citrus)	Canada (Citrus)	CODEX (Citrus)	EU (Citrus)	Japan (G & O)	Taiwan (G & O)	Korea (G & O)
Azoxystrobin	15	10	15	15	10	10	7 (G); 5 (O)
Fludioxonil	10	10	10	10	10	5	10 (G); 5 (O)
Imazalil	10	5	5	5	5	2	5
Pyrimethanil	10; 11 (L)	10	7	10	10	7	7
SOPP (2-Phenylphenol, O-phenylphenol)	10	10	10	5 (valid until 9/30/14)	10	10	10
Thiabendazole (TBZ)	10	10	7	5	10	10	10
Potassium Phosphite	Exempt	Exempt	?	75	No Food Additive Status	?	?

2-Phenylphenol = SOPP

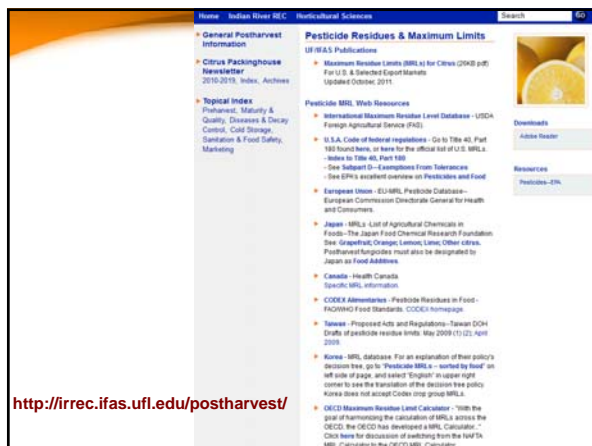


Code	Commodity	MRL (mg/kg)	MRL (mg/kg)	MRL (mg/kg)
0100000	Orange (fruit)	20.0	20.0	20.0
0100000	Orange (juice)	20.0	20.0	20.0
0100000	Orange (leaves)	20.0	20.0	20.0
0100000	Orange (seed)	20.0	20.0	20.0
0100000	Orange (stem)	20.0	20.0	20.0
0100000	Orange (wood)	20.0	20.0	20.0
0100000	Orange (fruit)	20.0	20.0	20.0
0100000	Orange (juice)	20.0	20.0	20.0
0100000	Orange (leaves)	20.0	20.0	20.0
0100000	Orange (seed)	20.0	20.0	20.0
0100000	Orange (stem)	20.0	20.0	20.0
0100000	Orange (wood)	20.0	20.0	20.0

"MRL valid until the entry into force of the Regulation reviewing the existing MRLs for 2-phenylphenol."

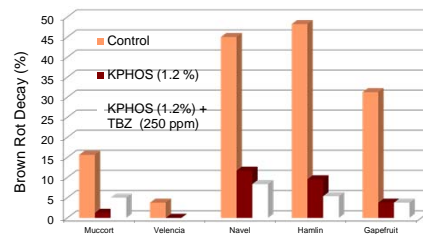


<http://irrec.ifas.ufl.edu/postharvest/>



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Postharvest Phosphite Treatment to Control Brown Rot





Thank You!

- For more information,
visit the UF Postharvest Website

<http://irrec.ifas.ufl.edu/postharvest/>