

PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

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Special Advisory Issue

**Emergency Phytophthora Root
Rot Control Following
Hurricane Isabel 1**

**Northern NJ Apple Maturity
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Emergency Phytophthora Root Rot Control Following Hurricane Isabel

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Each tree plantings four years and younger are at the greatest risk of infection from *Phytophthora* species. Since infection does not occur every season, various risk factors need to be examined each year to determine whether or not an orchard should be treated with fungicide. For example, past tree death from *Phytophthora* or a particularly wet growing season (true this year!) are two important factors that indicate inoculum availability and favorable environmental conditions, respectively.

Of course, now we have a traumatic event which can lead to *Phytophthora* root rot and possible tree death. Young trees, lacking the proper root development, have been severely whipped around by the high 60+ mph wind gusts from Hurricane Isabel. Several young peach and apple blocks here at the research center were severely lodged by the winds. Under these circumstances, root injury or "cracking" occurs; trunks can also get injured at the crown from soil abrasion as the tree moves in the wind. An open area in the soil around trunks, usually in the form of an inverted cone, is evidence that the tree was whipped during the storm. These injured areas are possible entry points for plant pathogenic *Phytophthora* species.

Young peach orchards that have experienced the above symptoms should be treated with Ridomil Gold as soon as possible. Similarly, any young apple blocks with these symptoms, especially if they have a susceptible root stock (e.g. M.7, M.7a, M.26, 104, 106) should also be treated. This is the only fungicide currently available for soil application. Although Ridomil Gold can be applied to the entire tree row using an herbicide sprayer, this form of application is wasteful since very little of the rows in young orchards contain the target tree roots. Instead, a handgun applied soil drench is much more economical and recommended.

For trees having a 4' or 6' diameter canopy, mix 1.9 or 4.2 fl. oz. of Ridomil Gold, respectively, per 100 gallons of water. Apply 1 gallon of this mixture to the 4' or 6' diameter area beneath the canopy of each tree using a handgun. Thoroughly and uniformly wet the entire soil area from the base of the trunk to the edge of the canopy drip line. Remember, this is not a spray for borers, so do not apply to the trunk! When properly applied, this rate is equivalent to the labeled rate of 2 quarts / treated acre.

SEE PHYTOPHTHORA CONTROL ON PAGE 2

Northern NJ Apple Maturity Update

Win Cowgill, Agricultural Agent, and Meredith Compton, Fruit IPM Program Associate

McIntosh harvest in North Jersey and the Hudson Valley is almost complete. Jonagold cultivars, Gala, Jonathan, and Cortland harvest was completed last week at the Rutgers Snyder Farm. Macoun harvest is underway in central New Jersey.

The following maturity observations were conducted in our lab at the Rutgers Snyder Research and Extension Farm on Monday evening 9/22.

Location County/Town	Cultivar	Retain®	Date	Pressure	Brix	Starch
Warren-Belvidere	Macoun	No	9/22	16.4	9.4	5
Hunterdon-Rutgers Snyder	Liberty	No	9/22	23	12	4
Hunterdon-Rutgers Snyder	Liberty	Yes	9/22	22	11	3

Empire

Empire maturity has advanced and fruit for storage can begin in central Jersey. This cultivar appears to be on track for a normal harvest date. Empire should be harvested at close to six on the SI chart for best eating quality, sugars are not quite there yet but red color development is excellent.

Location County/Town	Cultivar	Retain®	Date	Pressure	Brix	Starch
Warren-Belvidere	Empire	No	9/22	18.2	10.2	5.4
Hunterdon-Rutgers Snyder	Empire	No	9/22	18	13	4.5
Hunterdon-Rutgers Snyder	Thome Empire	No	9/22	20	11.6	4.0
Hunterdon-Pittstown-1	Empire	No	9/22	19	10	3

Red Delicious

Most red delicious strains have excellent color but sugars have not developed yet. The samples tested can be harvested for long-term storage but should be delayed a bit for best eating quality for local sales or PYO harvest.

Location County/Town	Cultivar	Retain®	Date	Pressure	Brix	Starch
Warren-Belvidere	Red Delicious	No	9/22	16.7	10	5.6
Hunterdon- Pittstown-1	RedChief	No	9/22	17	9	2.2
Hunt. Pittstown-2	Red Delicious	Yes	9/22	17	9	4.6
Hunt. Rutgers Snyder	SuperChief	No	9/22	18	10.3	2.8

Golden Delicious

Golden Delicious has green background color but maturity has advanced significantly. The strains tested are ready for harvest.

Location County/Town	Cultivar	Retain®	Date	Pressure	Brix	Starch
Warren-Belvidere	Golden Del.	No	9/22	15.6	12	7
Hunterdon- Pittstown-2	Golden Del.	Yes	9/22	14.7	11	7
Hunterdon- Pittstown-1	Golden Del	No	9/22	17.5	11	4.6

Retain®: Reminder Retain® must be applied 28 days before anticipated harvest. The season for Retain® application is closed for all but the latest maturing cultivars in Northern New Jersey orchard blocks. ☐

PHYTOPHTHORA CONTROL FROM PAGE 1

If applied now (late September), this one application has enough residual for disease control throughout the remainder of the fall (approximately 3 months). Additional details are given in the *2003 New Jersey Commercial Tree Fruit Production Guide*, page 138. And, as always, read the pesticide label prior to application. ☐

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