

## Spray Program for Multi-Tree Fruit Orchards



Many local orchards are composed of multi-fruit combinations producing for fresh market apples, peaches, pears, plums, nectarines, and cherries. Aggressive fruit tree spray programs are required to achieve high quality fruit. These multi-fruit orchards create many spray management challenges for the achievement of good pest control in accordance to label guidelines.

Therefore, the following multi-fruit orchard spray program for the control of major tree fruit pests and diseases may offer some assistance: **Labeled as noted in 2019 for All Tree Fruit – Pomes: Apples & Pears Stones: Peaches, Plums, Nectarines, and Cherries.**

<b>FUNGICIDES: [FRAC]</b>	<b>*RATE</b>	<b>NOTES</b>
<b>Captan® 80WDG [M4]</b>	3-5.0 lbs	General Protectant (Not Labeled for Pears; Reduce Rates for Cherries)
<b>Dormant Oil [NC]</b>	4.0 gal	Apply Temp 35-85° F
<b>Kocide® DF [M1]</b>	6.0 lbs	Other Fixed Coppers (Stones: Dormant Spray Only)
<b>Rally® 40W [3]</b>	4.0 ozs	Powdery Mildew
<b>Sulfur 95W [M2]</b>	3.0 lbs	General Protectant
<b>Gem® 500 SC [11]</b>	3.0 ozs	Brown Rot & Peach Scab (Stones Only) <b>or</b>
<b>Adamant® 50WG [3/11]</b>	6.0 ozs	Brown Rot, Peach Scab & Powdery Mildew (Stones Except Plums)
<b>Pristine® [7/11] <b>or</b></b>	14.5 ozs	Brown Rot, Powdery Mildew, Scab, Rusts & Fruit Spots (Limited to 4 Sprays/Season With Only 2 Consecutively)
<b>Indar® 2F [3]</b>	6.0 ozs	Powdery Mildew & Rusts
<b>Topsin-M® 70W [1]</b>	8.0 ozs	General Protectant
<b>Ziram 76DF [M3]</b>	5.0 lbs	Dormant Peach Leaf Curl (Captan Substitute for Pears)
<b>Agrimycin® 17 W</b>	24.0 ozs	Fireblight Control (Apples & Pears Only)
<b>Ph-D® WDG [19]</b>	6.2 ozs	Powdery Mildew & Scab (Not labeled for stones)

<b>INSECTICIDES: [IRAC]</b>	<b>*RATE</b>	<b>NOTES</b>
<b>Imidan® 70W [1A]</b>	2.0 lbs	Curculio, SWD, Scale & Fruit Moths
<b>Warrior® [3] <b>or</b> Tombstone® [3]</b>	4.0 ozs 2.0 ozs	Borers, Curculio, SWD, BSMB & Fruit Moths
<b>Actara® [4A]</b>	4.5 ozs	Aphids & Curculio
<b>Lorsban® Advanced [1B]</b>	1.5 qts	Dormant & Trunk Borer
<b>Acramite® 50WS [25]</b>	1.0 lbs	Mites Only as Required
<b>Sevin® 50W [1A]</b>	4.0 lbs	SWD, Japanese Beetles, Hornets & Sap Beetles (Apple Thinning Agent)

**\*Rate for 50-100gal Acre Concentrate Spray**

**\*\*Be sure to follow all labels closely for PHI and REI!**

### **Multi-Fruit Spray Calendar\***

<b>March 15 - Dormant Spray</b>	Dormant Oil 4.0 gal (Scales & Mites) Kocide® DF 6.0 lbs Lorsban® 4E 1.5 qts (Mites)
<b>April 5 - Peach Bloom</b>	<b>Apple Tight Cluster</b> Captan® 80WDG 3.0 lbs
<b>April 15 - Peach Petal Fall</b>	<b>Apple Bloom</b> Captan® 50W 3.0 lbs Indar® 2F 6.0 ozs Agrimycin® 17 W 24.0 ozs (Fireblight Control Add for Apples & Pears Only)
<b>April 25 - Peach Shuck Split</b>	<b>Apple Petal Fall</b> Pristine® 14.5 ozs Warrior® 4.0 ozs (Curculio) Agrimycin® 17 W 24.0 ozs (Fireblight Control Add for Apples & Pears Only)
<b>May 5 - 1<sup>st</sup> Cover Spray</b>	Captan® 80WDG 4.0 lbs (Cedar Apple Rust - Higher Rates for Wetter Conditions) Indar® 2F 6.0 ozs (Powdery Mildew & Rusts) Actara® 4.5 ozs (Curculio & Aphids; PHI: 35-Days Pomes, 14-Days Stones)
<b>May 15 - 2<sup>nd</sup> Cover Spray</b>	Captan® 80WDG 3-4.0 lbs Rally® 40W 4.0 ozs (Peach Rusty Spot Only) Warrior® 4.0 ozs (Curculio; PHI 21-Days Pomes, 14-days Stones)

**June 1 -**

**3<sup>rd</sup> Cover Spray**

Captan® 80WDG 3-4.0 lbs  
Topsin-M® 70W 8.0 ozs (Apple Scab Resistance Likely)  
Imidan® 70W 2.0 lbs (Curculio, Scale & Fruit Moths; PHI: 7-Days Pomes, 14-Days Stones)  
Acramite® 50WS 1.0 lbs (For Mites if Required PHI: 7-Days Pomes, 3-Days Stones)

**June 15 -**

**4<sup>th</sup> Cover Spray**

Captan® 80WDG 3-4.0 lbs  
Sulfur 95W 3.0 lbs (0-day PHI; Stones Only)  
Tombstone® 2.0 ozs (Borers, Curculio & Fruit Moths – 7-day PHI)

**July 1-**

**5<sup>th</sup> Cover Spray**

**Early Peach Harvest**  
Captan® 80WDG 3-4.0 lbs (0-day PHI; 1-day REI); or  
Pristine® 14.5 ozs (Early Stones 0-day PHI; Limited to 4 Sprays/Season With Only 2 Consecutively)  
Tombstone® 2.0 ozs (Borers, Curculio & Fruit Moths – 7-Day PHI)

**July 15 -**

**6<sup>th</sup> Cover Spray**

**Peach Harvests**  
Captan® 80WDG 3-4.0 lbs (0-day PHI; 1-day REI)  
Rally® 40W 4.0 ozs (0-day PHI, except apples 14-days)  
Sevin® 50W 4.0 lbs (Japanese Beetle & Moths – 5-Day PHI for All Fruit)

**August 1-**

**7<sup>th</sup> Cover Spray**

**Peach Harvests**  
Captan® 80WDG 4.0 lbs (0-day PHI; 1-day REI); **or**  
Pristine® 14.5 ozs (Early Pomes 0-day PHI)  
Sevin® 50W 4.0 lbs (Japanese Beetle & Hornets – 5-Day PHI for All Fruit)

**August 15 -**

**8<sup>th</sup> Cover Spray**

**Early Apple Harvests**  
**Late Peach Harvest**  
Captan® 80WDG 4.0 lbs (0-day PHI; 1-day REI); **or**  
Pristine® 14.5 ozs (Pomes 0-day PHI)

**September 1 -**

**9<sup>th</sup> Cover Spray**

**Apples and Pears Only**  
Captan® 80WDG 4.0 lbs (0-day PHI; 1-day REI); **or**  
Pristine® 14.5 ozs (Pomes 0-day PHI)  
Sevin® 50W 4.0 lbs (Japanese Beetle & Hornets – 5-Day PHI for All Fruit)

**September 15 -**

**Trunk Bore Spray**

Lorsban® 4E 1.5 qts (Post Harvest for Borers)

### **HERBICIDES: [HRAC]**

<b>*RATE</b>	<b>NOTES</b>
<b>Gramoxone® [22]</b>	1.0 qts Burndown, Directed Spray
<b>Roundup® [9]</b>	1.0 qts Burndown, Shielded & Directed Spray
<b>Devrinol® 50 DF [15]</b>	4.0 lbs Spring/Summer 35-day PHI
<b>Princep® 4L [5]</b>	1.0 qts Spring Dormant, Avoid High pH Soils
<b>Solican® [12]</b>	2.5 lbs Spring/Fall Dormant, 1-yr Established
<b>Goal® or Galigan® [14]</b>	2.0 pts After Harvest to Spring Bud Swell
<b>Chateau [14]</b>	12.0 ozs After Harvest to Spring Bud Swell
<b>Aim®, Shark® or Venue [14]</b>	2.0 ozs Directed Spray, 0-3-day PHI
<b>Matrix® [2]</b>	4.0 ozs Late Spring, 1-yr Established
<b>Prowl® [3] or Surflan® [3]</b>	2.0 qts Spring/ Summer, Prowl 60-day PHI
<b>Poast® [1]</b>	1.5 pts Summer Grasses, Variable PHI
<b>Karmex® [7] or Diuron® [7]</b>	1.6 qts Spring/Fall Dormant, 3-yr Established

**\*Lowest Use Rate Recommended Initially**

### **Organic Approach Substitutions:**

<b>Conventional Product</b>	<b>Organic Certified Product (OMRI)</b>
Captan® & Topsin-M®	Surround® or Sulfur or Lime Sulfur
Rally®	Kaligreen® (Powdery Mildew Eradicant)
Listed Insecticides	Neem® or Pyganic® or Entrust® (Stone Fruits Only)
Agrimycin®	Agrimycin® or Fixed Copper (Apples & Pears Except During Bloom)
Gramoxone® or Roundup®	Avenger® or Burnout® or AXXE®/BioSafe® or (Scythe® no OMRI label)

**\* Important Note: The calendar spray dates given are an average estimate for Anne Arundel and Prince George's County Orchards, and may vary by location in Southern Maryland. Be sure to adjust your spray schedule application dates accordingly. The above recommendations very closely reflect the current spray program utilized at the University of Maryland Research and Education Center, Upper Marlboro Facility for its research orchards. Remember to always "Read the Label"**

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