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 2016 for All Tree Fruit – Pomes: Apples & Pears Stones: Peaches, Plums, Nectarines, and Cherries.**

### Multi-Fruit Spray Calendar

**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 for calculations 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” before application.

**FUNGICIDES: [FRAC]**

<table>
<thead>
<tr>
<th><em>RATE</em></th>
<th>NOTES</th>
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<tbody>
<tr>
<td><strong>CAPTAN®</strong> 80WDG [M4]</td>
<td>3-5.0 lbs</td>
</tr>
<tr>
<td><strong>DORMANT OIL</strong> [NC]</td>
<td>4.0 gal</td>
</tr>
<tr>
<td><strong>KOCIHDE</strong> DF [M1]</td>
<td>6.0 lbs</td>
</tr>
<tr>
<td><strong>RALLY® 40W [3]</strong></td>
<td>4.0 ozs</td>
</tr>
<tr>
<td><strong>SULFUR 90W [M2]</strong></td>
<td>3.0 lbs</td>
</tr>
<tr>
<td><strong>GEM® 500 SC [11]</strong></td>
<td>3.0 ozs</td>
</tr>
<tr>
<td><strong>ADAMANT® 50WG [3/11]</strong></td>
<td>6.0 ozs</td>
</tr>
<tr>
<td><strong>PRISTINE® [7/11]</strong></td>
<td>14.5 ozs</td>
</tr>
<tr>
<td><strong>TOSPIN-M® 70W [1]</strong></td>
<td>8.0 ozs</td>
</tr>
<tr>
<td><strong>ZIRAM 76DF [M3]</strong></td>
<td>5.0 lbs</td>
</tr>
<tr>
<td><strong>AGRAMICYN 17 W</strong></td>
<td>24.0 ozs</td>
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(Apples & Pears Only)

**INSECTICIDES: [I/RAC]**

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<tr>
<td><strong>IMIDAN® 70W [1A]</strong></td>
<td>2.0 lbs</td>
</tr>
<tr>
<td><strong>WARRIOR® [3]</strong></td>
<td>4.0 ozs</td>
</tr>
<tr>
<td>or <strong>TOMBSTONE® [3]</strong></td>
<td>2.0 ozs</td>
</tr>
<tr>
<td><strong>ACTARA® 4E [4A]</strong></td>
<td>4.5 ozs</td>
</tr>
<tr>
<td><strong>LORSBAN® 4E [1B]</strong></td>
<td>1.5 qts</td>
</tr>
<tr>
<td><strong>ACRAMITE® 50WS [25]</strong></td>
<td>1.0 lbs</td>
</tr>
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</table>
| **SEVIN® 50W [1A]** | 4.0 lbs | SWD, Japanese Beetles, 
(Apple Thinning Agent) |
| **OR** | **HORNETS & SAP BEETLES** |

| *Rate for 50-100gal Acre Concentrate Spray ** Be sure to follow all labels closely for PHI and REI! |

**Multi-Fruit Spray Calendar**

**March 15 -** Dormant Spray
Dormant Oil 4.0 gal (Scales & Mites)  
Kocide® DF 6.0 lbs  
Lorsban® 4E 1.5 qts (Mites)

**April 5 -** Peach Bloom
Apple Tight Cluster
Captain® 80WDG 3.0 lbs

**April 15 -** Peach Petal Fall
Apple Bloom
Captain® 50W 3.0 lbs  
Indar® 2F 6.0 ozs  
Agramycin® 17 W 24.0 ozs (Fireblight Control Add for Apples & Pears Only)

**April 25 -** Peach Shuck Split
Apple Petal Fall
Pristine® 14.5 ozs  
Warrior® 4.0 ozs (Curcullio)  
Agramycin® 17 W 24.0 ozs (Fireblight Control Add for Apples & Pears Only)

**May 5 -** 1st Cover Spray
Captain® 80WDS 4.0 lbs (Cedar Apple Rust - Higher Rates for Wetter Conditions)  
Indar® 2F 6.0 ozs (Powdery Mildew & Rusts)  
Actara® 4.5 ozs (Curcullio & Aphids; PHI: 35-Days Pomes, 14-Days Stones)

**May 15 -** 2nd Cover Spray
Captain® 80WDS 3-4.0 lbs  
Rally® 40W 4.0 ozs (Peach Rusty Spot Only)  
Warrior® 4.0 ozs (Curcullio; PHI 21-Days Pomes, 14-days Stones)

**June 1 -** 3rd Cover Spray
Captain® 80WDG 3-4.0 lbs  
Tospin-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 -** 4th Cover Spray
Captain® 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 -** 5th Cover Spray
Early Peach Harvest
Captain® 80WDG 3-4.0 lbs (0-day PHI; 1-day REI); or  
Pristine® 14.5 ozs (Early Stunes 0-day PHI; Limited to 4 Sprays/Season With Only 2 Consecutively)
Tombstone® 2.0 ozs (Borers, Curculio & Fruit Moths - 7-day PHI)

**August 1 -** 7th Cover Spray
Peach Harvests
Captain® 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 & Moths - 5-Day PHI for All Fruit)

**August 15 -** 8th Cover Spray
Early Apple Harvests
Late Peach Harvest
Captain® 80WDG 4.0 lbs (0-day PHI; 1-day REI); or  
Pristine® 14.5 ozs (Pomes 0-day PHI)

**September 1 -** 9th Cover Spray
Apples & Pears Only
Captain® 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]**

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<tr>
<td><strong>GRAMOXONE</strong> [22]</td>
<td>1.0 qts</td>
</tr>
<tr>
<td><strong>ROUNDUP</strong> [9]</td>
<td>1.0 qts</td>
</tr>
<tr>
<td><strong>DEVRIROL</strong> 50 DF [15]</td>
<td>4.0 lbs</td>
</tr>
<tr>
<td><strong>PRINCEP</strong> 4L [5]</td>
<td>1.0 qts</td>
</tr>
<tr>
<td><strong>SOLICAM</strong> [12]</td>
<td>2.5 lbs</td>
</tr>
<tr>
<td><strong>GOAL</strong> or <strong>GALIGAN</strong> [14]</td>
<td>2.0 pts</td>
</tr>
<tr>
<td><strong>CHATEAU</strong> [14]</td>
<td>12.0 ozs</td>
</tr>
<tr>
<td><strong>AIM</strong>, <strong>SHARK</strong> or <strong>VENUE</strong> [14]</td>
<td>2.0 ozs</td>
</tr>
<tr>
<td><strong>MATRIX</strong> [2]</td>
<td>4.0 ozs</td>
</tr>
<tr>
<td><strong>PROW®</strong> [3] or <strong>SURFAN</strong> [3]</td>
<td>2.0 qts</td>
</tr>
<tr>
<td><strong>POAST</strong> [1]</td>
<td>1.5 pts</td>
</tr>
<tr>
<td><strong>KARMEX</strong> [7] or <strong>DIURON</strong> [7]</td>
<td>1.6 qts</td>
</tr>
</tbody>
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**Lowest Use Rate Recommended Initially**

**Organic Approach Substitutions:**

**Conventional Product**  
Captain® & Tospin-M®  
Roundup®  
Rally®  
Listed Insecticides  
Agrimycin®  
Gramoxone® or Roundup®

**Organic Certified Product (OMRI)**  
Surround® or Sulfur or Lime Sulfur  
Kaligreen (Powdery Mildew Eradicant)  
Neem® or Pyganic® or Entrust® (Stone Fruits Only)  
Agrimycin® or Fixed Copper (Apples & Pears Except During Bloom)  
Avenger®, Burnout® or Scythe® (no OMRI label)

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R. David Myers  
Extension Agent, Agriculture  
meyersrd@umd.edu