

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 2020 for All Tree Fruit – Pomes: Apples & Pears Stones: Peaches, Plums, Nectarines, and Cherries.**

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

| INSECTICIDES: [IRAC] | *RATE | NOTES |
|--|--------------------|--|
| Imidan® 70W [1A] | 2.0 lbs | Curculio, SWD, Scale & Fruit Moths |
| Warrior® [3] or Tombstone® [3] | 4.0 ozs 2.0 ozs | Borers, Curculio, SWD, BSMB & Fruit Moths |
| Actara® [4A] | 4.5 ozs | Aphids & Curculio |
| Lorsban® Advanced [1B] | 1.5 qts | Dormant & Trunk Borer |
| Acramite® 50WS [25] | 1.0 lbs | Mites Only as Required |
| Sevin® 50W [1A] | 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*

| | |
|--|--|
| 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 Captan® 80WDG 3.0 lbs |
| April 15 - Peach Petal Fall | Apple Bloom Captan® 50W 3.0 lbs Indar® 2F 6.0 ozs Agrimycin® 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 (Curculio) Agrimycin® 17 W 24.0 ozs (Fireblight Control Add for Apples & Pears Only) |
| May 5 - 1st Cover Spray | 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) |
| May 15 - 2nd Cover Spray | 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 -

3rd 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 -

4th 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-

5th 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 -

6th 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-

7th 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 -

8th 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 -

9th 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]

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

***Lowest Use Rate Recommended Initially**

Organic Approach Substitutions:

| Conventional Product | Organic Certified Product (OMRI) |
|-----------------------------|---|
| 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"**

R. David Myers
Principal Agent, Agriculture
myersrd@umd.edu