



Updates to the 2018 Midwest Fruit Pest Management Guide

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Outline

- Introduction to the 2018 Spray Guide
- General comments
- Apples
- Peaches
- Weeds



Introduction

- Who compiles the Guide?
Fruit extension and research specialists from 13 universities
- The Guide is updated annually
- Locate the Guide at:
 - <https://ag.purdue.edu/hla/Hort/Documents/ID-465.pdf>
 - hard copy from local Extension office
- Check the online guide regularly – labels change and the online guide is updated accordingly



Introduction

- Guide has sections...
 - Tips on using the guide
 - Tree Fruit spray schedules: apple, pear, cherry, peach, plum
 - Small Fruit spray schedules: grape, blueberry, bramble strawberry
 - REI and PHI for fungicides
 - REI and PHI for insecticides
 - Special insect control problems
 - Weed control in fruit crops

Midwest Fruit Pest Management Guide 2018

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Foreword

Commercial fruit production has become a highly skilled, technical profession. Concerns about pesticide residues, operator risks, and the environment dictate that all fruit growers exercise extreme caution in the use of all pesticides, and indeed, all chemicals. The Environmental Protection Agency (EPA) has designated a number of fruit pesticides as "restricted use." Growers who plan to use these restricted materials must be certified as private applicators.

Certification requires that applicators understand the following: labels and labeling, safety factors, potential environmental concerns, identification of common pests encountered, pesticides and their use, proper equipment use, application techniques, and applicable state and federal regulations. Training programs are offered to help you in certification. Contact your county extension office for information.

The pest management recommendations in this guide have been formulated to provide you up-to-date information about pesticides and their applicability to your problem. We suggest that you use this information to set up your own spray program. You should keep accurate records of materials used, application dates, areas treated, growth stages, and weather conditions. Sample

record sheets are on pages 169-170. In case of questions, nothing beats a good set of records. The EPA requires records for Restricted Use Pesticide applications. Some states may require records for general use pesticides (e.g., Kentucky has this requirement).

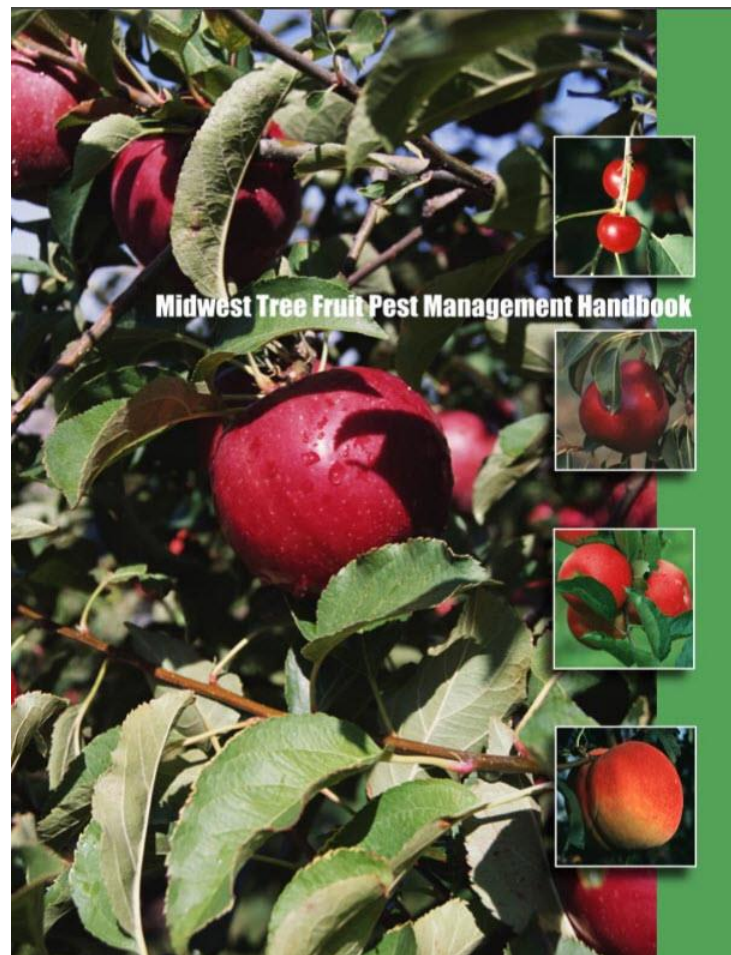
Handling Pesticides

1. Know the pesticide toxicity and act accordingly.
2. When mixing pesticides do not breathe the dust, powder, or vapor. Always mix outdoors.
3. Do not use tobacco, eat, or drink when handling or applying pesticides.
4. Stay out of drift from spray or dust.
5. Rinse liquid containers with water at least three times and pour rinsate into spray tank as it is being filled. Punch holes in metal and plastic containers and crush. Dispose of these and all other pesticide containers where there will be no contamination of crops or water supply. Do not re-use pesticide containers.
6. Use an adequate respirator and protective clothing, especially when mixing pesticides. Necessary protective equipment is listed on pesticide labels.

Midwest Tree Fruit Pest Management Handbook

- Companion to the Midwest Fruit Pest Management Guide
- Available as a free download at:

<http://www2.ca.uky.edu/agcomm/pubs/id/id93/id93.htm>





Changes in 2018 – General Comments

- Third year of a combined tree fruit and small fruit pest management guides
- Revised pesticide application equipment calibration section
- Increased emphasis on the importance of FRAC/IRAC code designations and resistance management

Changes in 2018 – New Fungicide Labels

Trade Name	FRAC	type	Apple	Peach
Flint Extra	11	QOI	X	X
Sercadis	7	SDHI	X	
Luna Tranquility	7+9	SDHI+	X	
Fontelis	7	SDHI	X	
Luna Experience	3+7	DMI+SDHI		X
Luna Sensation	7+11	SDHI+QOI		X
Meteor	2	dicarboxamid		X
Topguard EQ	3	DMI		X
Quilt Xcel	3+11	DMI+QOI		X

Changes in 2018 – New Insecticide Labels

Trade Name	FRAC	type	Apple	Peach
Madex HP	virus	virus	X	X
Closer 2SC	4C	neonicotinoid	X	X
Sivanto Prime	4D	neonicotinoid	X	X
Exirel	28	other	X	X
BeetleGone!	11A	bacterial	X	X



Changes in 2018 – New Herbicide Labels

Trade Name	HRAC	Apple	Peach	Plum
Stinger		X	X	

Note: most annual and perennial grasses; apply to trees one year old and older



Apple

- General
 - New sections on management of brown marmorated stink bug (third cover, summer cover)
 - New fungicide uses
 - Flint Extra added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Sercadis added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Luna Tranquility added for control of scab, powdery mildew, fruit rots, sooty blotch/flyspeck
 - New insecticide uses
 - Madex added for control of oriental fruit moth
 - Closer 2SC added for control of white apple leaf hopper, aphids
 - Sivanto Prime added for control of aphids
 - Removal of fungicide uses
 - Cabrio removed for control of scab, rust, powdery mildew
 - Removal of insecticide/miticide uses
 - Changes in Lorsban and Supracide labels



Apple

- Dormant to silver tip – no changes
- Green tip – no changes
- Half inch green – no changes
- Tight cluster
 - Flint Extra added for control of scab, rust, powdery mildew
 - Sercadis added for control of scab, rust, powdery mildew
 - Cabrio removed for control of scab, rust, powdery mildew
- Pink – no change
- Bloom – no change
- Petal fall
 - Madex added for control of oriental fruit moth
 - Closer 2SC added for control of white apple leafhopper and aphids
 - Sivanto Prime added for control of aphids (not wooly apple aphids)



Apple

- First and second cover
 - Flint Extra added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Sercadis added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Luna Tranquility added for control of scab, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Cabrio removed for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
- Third cover
 - Flint Extra, Fontelis, Luna Tranquility, Sercadis, Ziram 76DF added for control of scab, fruit rots, sooty blotch/flyspeck
 - Brown marmorated stink bug section added
- Summer covers
 - Brown marmorated stink bug section added
 - Closer 2SC added for wooly apple aphid control



Peach

- General
 - New fungicide uses
 - Luna Experience added for control of brown rot
 - Luna Sensation added for control of brown rot
 - Meteor added for control of brown rot
 - Topguard EQ added for control of brown rot, powdery mildew, scab
 - Flint Extra added for control of scab
 - Quilt Xcel added for control of scab
 - Scala SC added for control of scab, brown rot
 - New insecticide uses
 - Exirel added for control of ofm, plum curculio
 - Sivanto added for control of green peach aphid
 - Closer SC added for control of green peach aphid
 - BeetleGone! added for control of ofm, green june beetle, Japanese beetle
 - Removal of fungicides
 - Adament 50WG removed for control of brown rot
 - Removal of insecticides
 - Scorpion removed for control of stink bugs



Peach

- Dormant – no changes
- Pink
 - Luna Experience, Luna Sensation, Meteor, Topguard EQ added for brown rot control
- Full bloom
 - Luna Experience, Luna Sensation, Topguard EQ added for brown rot control
- Petal fall
 - Luna Experience, Luna Sensation, Topguard EQ, Flint Extra, Quilt Xcel added for scab control
 - Exirel added for oriental fruit moth and plum curculio control
- Shuck split
 - Luna Experience, Luna Sensation, Topguard EQ, Flint Extra added for brown rot and scab control
- First cover
 - Luna Experience, Luna Sensation, Topguard EQ, Flint Extra added for brown rot, powdery mildew and scab control
- Second cover – no changes
- Additional covers – no changes
- Pre-harvest
 - Luna Sensation, Flint Extra added for brown rot control
 - BeetleGone! added for control of Japanese beetle, green june beetle, oriental fruit moth

Questions or Comments?

- Contact information:
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Changes in 2017 – New Fungicide Labels

- Fungicides with the same FRAC codes:
 - FRAC 3: Orbit, Procure, Vintage, Topguard
 - FRAC 7+11: Luna Sensation, Merivon
 - FRAC 3+11: Quadris Top



Pear

- General

- New sections on management of brown marmorated stink bug (third cover, summer cover)
- New fungicide uses
 - Flint Extra added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Sercadis added for control of scab, rust, powdery mildew, fruit rots, sooty blotch/flyspeck
 - Luna Tranquility added for control of scab, powdery mildew, fruit rots, sooty blotch/flyspeck
- New insecticide uses
 - Madex added for control of oriental fruit moth
 - Closer 2SC added for control of white apple leaf hopper, aphids
 - Sivanto Prime added for control of aphids
- Removal of insecticide/miticide uses



Pear

- Dormant to silver tip – no changes
- Green tip – no changes
- Half inch green – no changes
- Tight cluster
 - Flint Extra added for control of scab, rust, powdery mildew
 - Sercadis added for control of scab, rust, powdery mildew
- Pink – no change
- Bloom – no change
- Petal fall
 - Madex added for control of oriental fruit moth
 - Closer 2SC added for control of white apple leafhopper and aphids
 - Sivanto Prime added for control of aphids (not wooly apple aphids)



Cherry

- General

- New fungicide uses

- AFrame added for control of brown rot and cherry leaf spot
 - Elite 45DF added for control of cherry leaf spot and brown rot
 - Quash 50WDG added for control of brown rot
 - Cabrio, Captan 80WDG, Rally and wettable sulfur added for control of brown rot

- Removal of insecticide/miticide uses

- Renounce removed for control of plum curculio, cherry fruit fly and spotted wing drosophila
 - Calypso removed for control of plum curculio and cherry fruit fly



Cherry

- Dormant – no changes
- Early bloom
 - AFrame added for control of brown rot
 - Ziram added for control of brown rot
- Full bloom – no changes
- Petal fall
 - AFrame added for control of cherry leaf spot
 - Elite 45DF added for control of cherry leaf spot
 - Renounce and Calypso removed for control of plum curculio
- Shuck fall
 - Elite 45DF added for control of cherry leaf spot
- First cover
 - Renounce and Calypso removed for control of plum curculio and cherry fruit fly
 - Delegate removed for control of cherry fruit fly
- Second and additional covers
 - Renounce and Calypso removed for control of cherry fruit fly
- Pre-harvest
 - Cabrio, Captan 80WDG, Elite 45DG, Quash, Rally, and wettable sulfur added for control of brown rot
- Post harvest – no changes



Plum

- General
 - New fungicide uses
 - Indar 2F added for control of brown rot and black knot
 - Bravo Weather Stik added for control of brown rot
 - Removal of insecticides
 - Renounce removed for control of a range of insects
 - Belt removed for control of oriental fruit moth
 - Calypso removed for control of plum curculio, oriental fruit moth, Japanese beetle and green june beetle



Plum

- Dormant – no changes
- Pre-bloom
 - Indar added for control of brown rot and black knot
 - Bravo Weather Stik added for control of brown rot
- Full bloom – no changes
- Petal fall
 - Renounce removed for control of plum curculio and oriental fruit moth
 - Belt removed for control of oriental fruit moth
 - Calypso removed for control of plum curculio
- Shuck split – no changes
- First cover – no changes
- Second and additional covers
 - Calypso removed for control Japanese beetle
- Pre-harvest
 - Renounce removed for control of spotted wing drosophila