

New Pest Management Products and Registration Update for Berry Crops

NWHS

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Joe DeFrancesco
Oregon State University

Pesticide Registrations in Oregon and Washington Berry Crops

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Prepared by:

Joe DeFrancesco

Oregon State University

North Willamette Research and Extension Center

Department of Horticulture

Integrated Plant Protection Center

2040 Cordley Hall

Corvallis, Oregon 97331-2915

541-737-0718

defrancj@science.oregonstate.edu

Handout

Insecticides/Miticides

Trade Name	Chemical Name	Strawb	Raspb	Blackb	Blueb	PHI ^a (days)	REI ^b (hours)	IRAC ^c
Acorale	Bifenazale	x	x	x		1	12	25
Aclara	Thiamethoxam	x	x	x	x	3	12	4A
Admire Pro (soil applied)	Imidacloprid	x	x	x	x	Straw=14; Cane/Blue = 7	12	4A
Admire Pro (foliar applied)	Imidacloprid	x	x	x	x	Straw=7; Cane/Blue = 3	12	4A
Agri-mek	Abamectin/Avermectin	x	x	x		Straw = 3; Cane = 7	12	6
Allacor	Chlorantraniliprole		x	x	x	Cane = 3; Blue = 1	4	28
Asana XL	Esfenvalerate		x	x	x	Cane = 7; Blue = 14	12	3A
Assail	Acetamiprid	x	x	x	x	1	12	4A
Avant	Indoxacarb				x	7	12	22A
Beleaf	Flonicamid	x				0	12	9C
Belt	Flubendiamide	x				8	12	28
Brigade	Bifenthrin	x	x	x	x	Straw = 0 Cane = 3; Blue = 1	12	3A
Bt	DiPel, Javelin, MVP	x	x	x	x	0	4	11B2
Confirm	Tebuconazole		x	x	x	14	4	18A
Coragen	Chlorantraniliprole	x				1	4	28
Courier	Buprofezin	x				3	12	16
Cryolite Bait	Sodium aluminum fluoride	x ^{d, e}	x ^{d, e}		x ^{d, e}	3	12	9A
Danitol	Fenpropathrin	x	x	x	x	Straw = 2 Cane & Blue = 3	24	3A
Delegate	Spinetoram		x	x	x	Cane = 1; Blue = 1 or 3	4	5
Diazinon	Diazinon	x	x	x	x	Straw = 5 Cane & Blue = 7	Straw = 3 days Cane & Blue = 5 days	1B
Dibrom	Naled	x				1	48	1B
Esteem	Cyproconazole	x	x	x	x	Cane & Blue=7; Straw=2	12	7C
Exirel	Cyanktraniliprole	x			x	Straw = 1; Blue = 3	12	28
Fujione	Fenpropathrin	x				1	12	21A
Imidan	Phosmet				x	3	24	1B
Intrepid	Methoxyfenozide	x	x	x	x	Blue=7; Straw&Cane = 3	4	18A
Kanemite	Acequinosol	x	x	x		1	12	20B
Knack	Cyproconazole		x	x	x	7	12	7C
Lannate	Methomyl				x	3	48	1A
Lorsban	Chlorpyrifos	x				21	24	1B
Malathion	Malathion	x	x	x	x	Cane & Blue = 1; Straw = 3	12	1B
Mocap	Ethion				x	365	48	1B
Moverlo	Spirotetramat				x	7	24	23
MSR Spray	Quadris-methyl	x ^d	x ^{e, f}	x ^{e, f}		Straw = 0 Cane = 365	Straw = 15 days Cane = 16 days	1B
Mustang	Zeta-cypermethrin		x	x	x	1	12	3A
Mycotrol	Beauveria bassiana	x	x	x	x	0	12	?
Nealta	Cyflumetofen	x				1	12	25
Neem	Aza-Direct, Neemix, others	x	x	x	x	0	4	18B
Nexter DF or SC	Fiprodifen	x				DF = 1; SC = 10	12	21A
Oberon	Spiromesifen	x				3	12	23
Platinum	Thiamethoxam	x			x	Straw = 50; Blue = 75	12	4A
Pyganic	Pyrethrin	x	x	x	x	0	12	3A
Pyralin	Rotenone + Pyrethrin	x	x	x	x	12 hours	12	21B + 3A
Radiant	Spinetoram	x				1	4	5
Rimon	Novaluron	x			x	Straw = 1 Blue = 0	12	15
Savey	Hexythiazox	x	x	x		3	12	10A
Sevin	Carbaryl	x	x	x	x	7	12	1A
Sivanto	Flupyradifurone	x	x	x	x	Straw & Cane = 0 Blue = 3	4	4D
Soape	Safer, M-Peda	x	x	x	x	0	12	?
Success, Entrust	Spinosad	x	x	x	x	Straw & Cane = 1; Blue = 3 Entrust Blue = 1	4	5
Vendex	Hexakis	x	x	x		Straw = 1; Rasp = 3	48	12B
Zeal	Etoxazole	x	x	x		Straw = 1; Cane = 0	12	10B

^a = Non-bearing only; ^b = SLN Registration (24c) for Oregon; ^c = SLN Registration (24c) for Washington; **Bold Text** = Organic

This document is just a guide and not intended as a recommendation or endorsement. Pesticide registrations and labels are subject to change. The label is the law. Consult with your supplier, field representative, pest consultant or OSU Extension Service prior to pesticide use.

Registration Update in Berry Crops

- New registrations
- Label Changes
- Pending Registrations

Blueberry ➡ Caneberry ➡ Strawberry

New Blueberry Registrations in 2017

2 Fungicides

2 Insecticides

1 Herbicide

Kenja

(isofetamid)

- New fungicide from ISK
- Blueberries appear on a supplemental label
- Controls Botrytis fruit rot
- FRAC #7
 - Same as Pristine and Luna Tranquility
 - Recent testing reveals that Botrytis isolates from OR and WA berry fields show no resistant to isofetamid, as is the case with some currently registered fungicides.
- PHI = 7 days; REI = 12 hr

Prolivo

(pyriofenone)

- New fungicide from ISK (distributed by Summit Agro)
- Controls powdery mildew
 - Has preventative and curative properties
 - Locally systemic (translaminar mobility)
- FRAC #U8 (mode of action unknown)
- PHI = 0 days; REI = 4 hr

Alion (indaziflam)

- Pre-emergence herbicide from Bayer
- Controls annual grasses; annual & perennial bl weeds
 - Mustards, pigweed, groundsel, sow thistle, horseweed, purslane, smartweed, vetch, crabgrass, barnyard grass, etc.
- Very persistent in the soil
- Use prior to bud swell; REI = 24 hours; HRG# 29 (new)
- Use only on plants in the field one year or more
 - Avoid soil cracks and exposed roots
 - Avoid green stems and desirable plant parts
 - Do not use on sandy soils
- Apply to dry soil that stays dry for 48 hr (so can bind to soil)
- Irrigate/rainfall 2 to 21 days after application

Movento


(spirotetramat)

- New insecticide from Bayer
- Previously “on hold” due to bee-safety issues
- For control of aphids, blueberry gall midge
 - Suppression of thrips
 - Not effective in controlling SWD
- Systemic; moves up and down the plant
 - IRAC #23 (new for blueberries)
- PHI = 7-day; REI = 24 hr

Delegate (spinetoram)

- SLN label allows 1-day PHI
 - Read label carefully for restrictions*
 - * If 1-day PHI, then no more than 3 apps per season.
- WA does not have a similar SLN label

**FIFRA Section 24(c)
Special Local Need Label**

 **Dow AgroSciences**

Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1054 USA

Delegate® WG
EPA Reg. No. 62719-541
EPA SLN No. OR-170016

(For Distribution and Use Only in the State of Oregon)

**Suppression of Spotted Wing Drosophila and One-day Pre-harvest Interval in
Blueberry**

Expiration Date: This label is valid until December 31, 2022 or until otherwise amended, withdrawn, canceled, or suspended.

Group	5	INSECTICIDE
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Active Ingredient:
spinetoram (a mixture of
spinetoram-J and spinetoram-L)25.0%
Other Ingredients75.0%
Total100.0%

Contains 25% active ingredient on a weight basis (250 g ai/kg)

Current Issues
and
Label Changes
for
Blueberries

Entrust and Success labels (spinosad)

SLN# OR-160013: 1-day PHI for Entrust (organic)

Label Changes for Success

- Non-organic spinosad formulation
- Blueberries no longer on Success label
 - Can still use old product
- Dow phasing out Success; Delegate preferred for blueberries

Prowl H₂O

(pendimethalin)

- Pre-emergence herbicide from BASF
 - For control of grass and broadleaf weeds
- Blueberry registration **CANCELLED**
 - Crop damage and lawsuits
 - Cause of damage? Tank mixes and atypical localized weather.
- Supplemental label for blueberry expires Jan. 1, 2019
- Can use old product until Jan. 1, 2019
 - BASF recommends not using Prowl
 - If must use, use 2-3 qt/A rate (not 6 qt/A)

Chateau SW (flumioxazin)

- Pre-emergence herbicide from Valent
 - Some post-emergence activity (enhanced with COC)
- WDG label being phased out; soon only SW label
- Controls mostly broadleaf weeds; some grasses
 - Dandelion, nightshade, chickweed, mustards, etc.
- Activate with irrigation/rainfall after app
 - PHI 7 days (avoid desirable shoots and branches)
- Only counties west of Cascade Mts. (OR & WA)
- Do not apply to blueberries established < 2 years in ground (unless protected by a wrap)
- Do not apply w/in 300 yd. of non-dormant pears

Provado 1.6F (imidacloprid)

- Insecticide from Bayer
- Controls aphids and other piercing/sucking insects
- Bayer no longer marketing Provado
- Foliar app now found on Admire Pro label
 - Separate instructions and rates for soil and foliar
- Provado 1.6F OK to use

Pending Blueberry Registrations

Tolerance established
Waiting for label

**** Not yet registered ****

Quinstar

(quinclorac)

{Not yet registered}

- EPA established tolerance; waiting for a label
 - Expect label in early 2018
- Post-emergence herbicide from Albaugh
- Controls BL weeds and some annual grasses weeds
- Especially effective on field bindweed, morningglory, dandelion, sowthistle, Canada thistle

Fusilade

(fluazifop-p-butyl)

{Not yet registered}

- EPA established tolerance; waiting for a label
 - Expect label in early 2018
- Post-emergence herbicide from Syngenta
- Controls grass weeds only, esp. quackgrass
- Currently registered for use in non-bearing blueberries
- Residue data and new label will allow use in bearing crop
 - Expect a 7-day PHI

New Caneberry Registrations in 2017

3 Fungicides

1 Insecticide

2 Herbicides

Orondis Gold 200 (oxathiapiprolin)

- New fungicide from Syngenta
- Caneberries currently appear on a supplemental label
- Soil-applied for *Phytophthora* Root Rot control
- FRAC # U15 (mode of action unknown)
- PHI = 1 day; REI = 4 hr.
- For resistant management: Use only with Ridomil
 - Currently being sold as a co-pack with Ridomil (2 jugs).
 - In 2018, marketed as a pre-mix (oxathiapiprolin + mefenoxam).

Chateau SW (flumioxazin)

- Pre-emergence herbicide from Valent
- Controls mostly broadleaf weeds; some grasses
 - Dandelion, nightshade, chickweed, mustards, etc.
- PHI = 7 days (avoid desirable primocanes); REI = 12 hr.
- HRG# 14 (as is Aim, Goal, and Zeus)
- Caneberries on only supplemental SW label not WDG
 - (WDG for non-bearing raspberries on state SLN label)
- Counties west of Cascade Mts. only (OR & WA)
- Do not apply to caneberries established < 1 year
- Avoid creating dust from treated area
- Do not apply w/in 300 yd. :
non-dormant pome and stone fruit trees

Sivanto Prime

(flupyradifurone)

- New insecticide from Bayer
- For control of aphids
 - Suppression of thrips
- Non-systemic insecticide; translaminar mobility
- Bee-safe
 - IRAC #4D – new for caneberries (Neonics = 4A)
- PHI = 0-day; REI = 4 hr
- Caneberries on Sivanto Prime label, not Sivanto 200 SL

Alion (indaziflam)

- Pre-emergence herbicide from Bayer
- Controls annual grasses; annual & perennial bl weeds
 - Mustards, pigweed, groundsel, sow thistle, horseweed, purslane, smartweed, vetch, crabgrass, barnyard grass, etc.
- Very persistent in the soil
- Use prior to bud swell; REI = 24 hours; HRG# 29 (new)
- Use only on plants in the field one year or more
 - Avoid soil cracks and exposed roots
 - Avoid green stems and desirable plant parts
 - Do not use on sandy soils
- Apply to dry soil that stays dry for 48 hr (so can bind to soil)
- Irrigate/rainfall 2 to 21 days after application

Kenja

(isofetamid)

- New fungicide from ISK
- Controls Botrytis fruit rot and powdery mildew
- FRAC #7
 - Same as Pristine and Luna Tranquility
 - Recent testing reveals that Botrytis isolates from OR and WA berry fields show no resistant to isofetamid, as is the case with some currently registered fungicides.
- PHI = 7 days; REI = 12 hr

Prolivo

(pyriofenone)

- New fungicide from ISK (distributed by Summit Agro)
- Controls powdery mildew
 - Has preventative and curative properties
 - Locally systemic (translaminar mobility)
- FRAC #U8 (mode of action unknown)
- PHI = 0 days; REI = 4 hr

Current Issues
and
Label Changes
for
Caneberries

Prowl H₂O

(pendimethalin)

- Pre-emergence herbicide from BASF
 - For control of grass and broadleaf weeds
- Caneberry registration **CANCELLED**
 - Crop damage and lawsuits
 - Cause of damage? Tank mixes and atypical localized weather.
- Supplemental label for caneberry expires Jan. 1, 2019
- Can use old product until Jan. 1, 2019
 - BASF recommends not using Prowl
 - If must use, use 2-3 qt/A rate (not 6 qt/A)

Pending Caneberry Registrations

Tolerance established
Waiting for label

**** Not yet registered ****

Quinstar

(quinclorac)

{Not yet registered}

- Post-emergence herbicide from Albaugh
- Controls BL weeds and some annual grasses weeds
- Especially effective on field bindweed, morningglory, dandelion, sowthistle, Canada thistle
- Expect label by 2018 field season

Fusilade

(fluazifop-p-butyl)

{Not yet registered}

- Post-emergence herbicide from Syngenta
- Controls grass weeds only
- Currently registered for use in non-bearing caneberries
- Residue data and new label will allow use in bearing crop
 - Expect a 7-day PHI
- Expect label in early Jan/Feb 2018

New Strawberry Registrations in 2017

2 Fungicides

1 Insecticide

1 Miticide

1 Nematicide

Nimitz or Fluensulfone 480EC

(fluensulfone)

- New nematicide from Adama
- For control of:
 - Root lesion and other nematodes
- Apply pre-plant or to established strawberries 30 days before bloom or post harvest.
 - Reduces population of lesion nematodes that are present at the time of application.
 - Contact activity; no residual

Prolivo

(pyriofenone)

- New fungicide from ISK (distributed by Summit Agro)
- Controls powdery mildew
 - Has preventative and curative properties
 - Locally systemic (translaminar mobility)
- FRAC #U8 (mode of action unknown)
- PHI = 0 days; REI = 4 hr

Intuity

(mandestrobin)

- New fungicide from Valent
 - Controls botrytis and powdery mildew (supression)
- PHI = 0-day
- REI = 12-hr.
- FRAC #11 (similar to 9 other strobilurins in strb)
 - Be mindful of resistance management and rotate chemistries

Exirel

(cyantraniliprole)

- New insecticide from DuPont
 - Controls SWD, thrips, other
- PHI = 1-day; REI = 12-hr.
- IRAC #28; new mode of action for strawberry

Nexter (pyridaben)

- New miticide from Gowan
 - Controls TSSM and other mites; some aphids, leafhoppers
 - Might be effective for cyclamen mite as other eriophyid and tarsonemid mites listed on label
- PHI
 - DF formulation: 1-day
 - SC formulation: 10 days
- REI = 12-hr.
- IRAC #21A (similar to FujiMite)

Pending Strawberry Registrations

Tolerance established
Waiting for label

** Not yet registered **

Fusilade

(fluazifop-p-butyl)

{Not yet registered}

- EPA established tolerance; waiting for a label
 - Expect label in early 2018
- Post-emergence herbicide from Syngenta
- Controls grass weeds only, esp. quackgrass
- Currently registered for use in non-bearing strawberries
- Residue data and new label will allow use in bearing crop
 - Expect a 7-day PHI



QUESTIONS?

