

Tree Fruits and Nuts

Pome fruits: apple and pear

Stone fruits: apricot, peach, nectarine, cherry, prune, plum

Nuts: hazelnut, walnut, and chestnut

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Revised March 2020

Quick Reference Guide to Herbicides Labeled for Use in Fruit and Nut Crops

- Shaded boxes indicate the herbicide is labeled for use in that crop.
- Nonbearing (NB) indicates the herbicide is labeled only for crops that will not be harvested for 1 year (365 day preharvest interval).
- Herbicides in ***bold, italic*** type are recommended for new plantings.

Ingredient common name (herbicide mode of action) & Product name example	Nuts			Pome fruit		Stone fruit						Rate
	Chestnut	Hazelnuts	Walnut	Apple	Pear	Apricot	Cherry	Nectarine	Peach	Plums	Prunes	
1. APPLICATIONS THAT ARE SOIL ACTIVE (HERBICIDES IN ITALICS AND BOLD ARE RECOMMENDED FOR NEW PLANTINGS)												
dichlobenil (20) Casoron												4 to 6 lb ai/a (100 to 150 lb/a Casoron); apply in cold, wet weather.
diuron (7) Karmex												1.6 to 3.2 lb ai/a (2 to 4 lb/a Karmex 80DF)
<i>isoxaben</i> (21) Trellis SC					NB	NB	NB	NB	NB	NB	NB	0.5 to 1 lb ai/a (0.66 to 1.33 lb/a product)
indaziflam (29) Alion												0.046 to 0.085 lb ai/a (3.5 to 6.5 oz/a product) depending on soil texture.
<i>mesotrione</i> (27) <i>Broadworks, Motif</i>												0.093 to 0.187 lb ai/a (3 to 6 fl oz/a product)
<i>napropamide</i> (3) Devrinol												4 lb ai/a (8 lb/a)
norflurazon (12) Solicam												1.95 to 3.98 lb ai/a (2.5 to 5 lb/a Solicam)
<i>oryzalin</i> (3) Surflan												2 to 6 lb ai/a (2 to 6 quarts/a Surflan)
<i>pendimethalin</i> (3) Prowl H2O												Prowl H ₂ O: 1.9 to 6 lb ai/a (2 to 6.3 quarts/a) depending on desired length of control and crop.
<i>pronamide</i> (3) Kerb												1 to 4 lb ai/a (2 to 8 lb/a) depending on species present and soil texture.
simazine (5) Princep												See product label for rates. Princep Caliber 90 is a Special Local Needs label (OR-080038) for sweet cherries only.
sulfentrazone (14) Zeus XC/Sulfentrazone 4SC												0.125 to 0.375 lb ai/a (4 to 12 oz/a) depending on soil classification; established 3 years.
terbacil (5) Sinbar WDG						NB	NB					0.4 to 0.8 lb ai/a (0.5 to 1 lb/a), newly established; 2 to 4 lb/a Sinbar, bearing, depending on soil type.

Ingredient common name (herbicide mode of action) & Product name example	Nuts			Pome fruit		Stone fruit						Rate
	Chestnut	Hazelnuts	Walnut	Apple	Pear	Apricot	Cherry	Nectarine	Peach	Plums	Prunes	
trifluralin (3) Treflan 4L/EC												0.5 to 1 lb ai/a (1 to 2 pints/a Treflan 4L)
trifluralin (3)+ isoxaben (21)+ oxyfluorfen (14) Showcase	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	2.5 to 5 lb ai/a (100 to 200 lb/a Showcase)
2. APPLICATIONS THAT ARE SOIL AND FOLIAR ACTIVE												
clopyralid (4) Stinger												Pome Fruit: 0.094 to 0.25 lb ae/a (0.25 to 0.66 pints/a Stinger) Others: 0.12 to 0.25 lb ae/a (0.33 to 0.66 pints/a Stinger)
flazasulfuron (2) Mission												0.033 to 0.045 lb ai/a (2.14 to 2.85 oz/a)
flumioxazin (14) Chateau SW												0.188 to 0.38 lb ai/a (6 to 12 oz/a Chateau WDG). Do not apply within 300 yards nondormant pears.
oxyfluorfen (14) generic												1.25 to 2 lb ai/a (5 to 8 pints/a Goal 2XL)
oxyfluorfen (14) + penoxsulam (2) Pindar GT												1.47 lb ai/a oxyfluorfen + 0.015 lbs ai/a penoxsulam (1.5 to 3 pints/a)
rimisulfuron (2) Matrix												0.063 lb ai/a (4 oz/a Matrix FNV per year)
3. POSTEMERGENCE CONTACT AND TRANSLOCATED HERBICIDES												
2,4-D (4) Saber												Green sucker control in hazelnuts: 0.7 to 0.95 lb ai/a (1.5 to 2 pints/a Saber)
ammonium nonanoate Axxe												6 to 15% v/v OMRI certified
caprylic acid + capric acid Suppress												6 to 9% v/v . OMRI listed.
carfentrazone (14) Aim EC												Green sucker control in hazelnuts: 0.031 lb ai/a (2 fl oz/a Aim EC)
clethodim (1)		NB	NB	NB	NB	NB	NB		NB	NB	NB	0.06 to 0.125 lb ai/a (6 to 8 oz/a Select Max)
diquat (22) Reglone		NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	0.375 to 0.5 lb ai/a (1.5 to 2 pints/a)
fluzifop (1) Fusilade DX		NB	NB	NB	NB							0.25 to 0.375 lb ai/a (16 to 24 oz/a Fusilade DX). Refer to specific grassy weeds listed on label.
glufosinate (10) generic												0.88 to 1.5 lb ai/a(1.5 to 2.5 quarts/a Rely 280);sucker control: 1.75 quarts/a. Do not make spot spray applications to suckers.
glyphosate (9) Roundup												General weed control and grass suppression in row middles; read label carefully for crops listed and geographic location.
halosulfuron (2) Sanda												Pome Fruit: 0.035 to 0.094 lb ai/a (0.75 to 2 oz/a); Nut crops: 0.031 to 0.063 lb ai/a (2/3 to 1 1/3 oz/a)

Ingredient common name (herbicide mode of action) & Product name example	Nuts			Pome fruit		Stone fruit						Rate
	Chestnut	Hazelnuts	Walnut	Apple	Pear	Apricot	Cherry	Nectarine	Peach	Plums	Prunes	
paraquat (22) Gramoxone SL 2.0												Green sucker control in hazelnuts: 0.625 to 1 lb cation/a (2.5 to 4 pints/a Gramoxone 2.0 SL; 1.7 to 2.7 pints/a Firestorm)
pyraflufen (14) Venue												0.001 to 0.005 lb ai/a (0.7 to 4 fl oz/a product). Green sucker control in hazelnuts: 3 to 4 fl oz/a.
saflufenacil (14) Treevix												0.045 lb ai/a (1 oz/a)
sethoxydim (1) Poast										NB	NB	Grass suppression in row middles: 0.28 to 0.47 lb ai/a (1.5 to 2.5 pints/a product)

Quick Reference Guide to Herbicides Labeled for Use in Hazelnuts

Active ingredient [WSSA #] (trade name)	Rate pounds ai/a (product)	Max amount per season (product)	Appl. per season/ Reapply (Month)	Minimal Age (Month)	Replant (Month)	Soil Incorporation IN/Days	PHI (day)
SOIL ACTIVE HERBICIDES							
dichlobenil [20] (Casoron 4G)	4 to 6 lb ai/a (100 to 150 lb)	4 to 6 lb ai/a (100 to 150 lb/a Casoron)	1/(12)	1	12	0.5-1"/(0)	30
diuron [7] (generic)	1.6 to 2.4 lb ai (se label)	3.2 lb ai (see label)	2/(5)	12	24	0.5"/(14)	-
indaziflam [29] (Alion)	0.04 to 0.06 lb ai (3.5 to 5 fl oz)	0.09 to 0.13 lb ai (7.0 to 10.3 fl oz)	2/3	12	12	-(21)	14
isoxaben [21] (Trellis SC)	0.5 to 1 lb ai (16 to 31 fl oz)	1.0 lb ai (31 fl oz)	2/(-)	0	0	0.5"/(21)	60
napropamide [15] (Devrinol 50DF)	4 lb ai (8 lb)	4 lb ai (8 lb)	-(12)	0	12	1-2"/(3)	-
norflurazon [12] (Solican DF)	1.95 to 3.93 lb ai (2.5 to 5 lb)	3.93 lb ai (5 lb)	-(0)	6	12	0.5-1"/(28)	60
oryzalin [3] (Surflan)	2 to 6 lb ai (2 to 6 quarts)	12 lb ai (12 quarts)	-(2.5)	0	0	1"/(21)	-
pendimethalin [3] (Prowl H2O)	1.9 to 6 lb ai (2 to 6.3 quarts)	6 lb ai (6.3 quarts)	-(1)	0	12	1"/(-)	60
simazine [5] (generic)	2 to 4 lb ai (see label)	4 lb ai (see label)	2/(3)	0	12	0.5"/(-)	21
sulfentrazone [14] (Sulfentrazone 4SC)	0.25 to 0.375 lb ai (8 to 12 fl oz)	0.375 lb ai (12 fl oz)	2/(2)	36	1	0.5"/(15)	3
trifluralin [3] (Treflan 4L)	0.5 to 1 lb ai (1 to 2 pints)	1 lb ai (2 pints)	N/A	0	0	-(1)	60
SOIL AND FOLIAR ACTIVE HERBICIDES							
Flazasulfuron [2] (Mission)	0.03 to 0.04 lb ai (2.14 to 2.85 oz)	0.09 lb ai (5.7 oz)	2/ (3)	36	12	0.5"/(15)	130
flumioxazin [14] (Chateau SW)	0.18 to 0.38 lb ai (6 to 12 oz)	0.76 lb ai (24 oz)	-(1)	12	2	0.5"/(-)	60
halosulfuron [2] (Sandea)	0.03 to 0.06 lb ai (0.6 to 1.3 oz)	0.13 lb ai (2.6 oz)	2/(1.5)	12	9	0.5"/(-)	1

Quick Reference Guide to Herbicides Labeled for Use in Hazelnuts (cont.)

Active ingredient [WSSA #] (trade name)	Rate pounds ai/a (product)	Max amount per season (product)	Appl. per season/ Reapply (Month)	Minimal Age (Month)	Replant (Month)	Soil Incorporation IN/Days	PHI (day)
oxyfluorfen [14] generic	1.25 to 2 lb ai (1 to 4 pints)	2 lb ai (4 pint)	-	0	1	0.5"/(21)	60
oxyfluorfen + penoxsulam [14 + 2] (Pindar GT)	1.47+0.03 lb ai (1.5 to 3 pints)	2.2 + 0.04 lb ai (4.5 pints)	2/(1)	48	1	0.5"/(21)	60
rimsulfuron [2] (Matrix)	0.03 to 0.06 lb ai (2 to 4 oz)	0.06 lb ai (4 oz)	1-2/(1)	12	12	0.5"/(21)	14
mesotrione [27] (Broadworks, Motif)	0.09 to 0.18 lb ai (3 to 6 fl oz)	0.36 lb ai (12 fl oz)	3/(1.5 -3)	12	18	-(21)	30
FOLIAR ACTIVE HERBICIDES							
2,4-D [4] (various)	0.95 to 1.4 lb ai (see label)	1.9 lb ai (see label)	2/(2.5)	12	1	n/a	60
carfentrazone [14] (Aim EC)	0.01 to 0.03 lb ai (1 to 2 fl oz)	0.079 lb ai (7.9 fl oz)	-(0.5)	0	0	n/a	3
clethodim [1] (Select max)	0.07 to 0.12 lb ai (9 to 16 fl oz)	0.64 lb ai (64 fl oz)	3/(0.5)	0	0	n/a	14
diquat [22] (Reglone)	0.37 to 0.56 lb ai (1.5 to 2 pints)	0.56 lb ai (2 pints)	-(0.5)	12	0	n/a	365 (nb)
fluazifop [1] (Fusilade DX)	0.25 to 0.375 lb ai (16 to 24 fl oz)	1.125 (72 fl oz)	3/(0.5)	0	0	n/a	365 (nb)
glufosinate [10] (generic)	0.88 to 1.5 lb ai (48 to 82 fl oz)	4.5 lb ai (246 fl oz)	0.5	0	6	n/a	14
glyphosate [9] (Roundup Powermax)	0.38 to 3.69 lb ae (11 to 105 fl oz)	7.87 lb ae (224 fl oz)	0.5	0	0	n/a	3
paraquat [22] (generic)	0.625 to 1 lb ai (2.5 to 5 pints)	4 lb ai (20 pints)	4/(0.5)	0	0	n/a	1
pelargonic acid (Scythe)	3 to 10 % v/v	N/A	n/a	n/a	n/a	n/a	1
pyraflufen [14] (Venue)	0.002 to 0.005 lb ai (2 to 4 fl oz)	0.0085 lb ai (6.8 fl oz)	2/(1)	12	0	n/a	0
Saflufenacil [14] (Treevix)	0.04 lb ai (1 oz)	0.13 lb ai (3 oz)	4/(0.7)	1	1	n/a	7
sethoxydim [1] (Poast)	0.19 to 0.47 lb ai (1.5 to 2.5 pints)	1.88 lb ai (10 pints)	-(0.5)	0	0	n/a	15
SUCKER CHEMICAL PRUNING							
2,4-D [4] (generic)	0.71 to 0.95 lb ai (see label)	1.9 lb ai (see label)	4/(1)	12	1	n/a	45
carfentrazone [14] (Aim EC)	0.03 lb ai (2 fl oz)	0.079 lb ai (7.9 fl oz)	3/(0.5)	0	0	n/a	3
glufosinate [10] (generic)	1.0 lb ai (56 fl oz)	4.5 lb ai (246 fl oz)	-(0.5)	0	6	n/a	14
paraquat [22] (generic)	0.625 to 1 lb ai (2.5 to 5 pints)	4 lb ai (20 pints)	4/(0.5)	0	0	n/a	1
pelargonic acid (Scythe)	5 to 7 % v/v	N/A	N/A	N/A	N/A	n/a	1
pyraflufen [14] (Venue)	0.002 to 0.005 lb ai (2 to 4 fl oz)	0.0085 lb ai (6.8 fl oz)	2/(1)	12	0	n/a	0
Saflufenacil [14] (Treevix)	0.04 lb ai (1 oz)	0.13 lb ai (3 oz)	3/(0.7)	1	1	n/a	7

1 WSSA # to Weed Science Society of America herbicide site of action group number.

Abbreviation: PHI – preharvest interval; nb – nonbearing; n/a – not applicable; “-” – no information

Quick Reference Guide to Herbicides Labeled for Use in Pears

Active ingredient [WSSA #] trade name	Rate pounds ai/a (product)	Max amount per season (product)	Max appl. per season/	Reappl. (Month)	Minimal Age (Month)	Replant (Month)	Soil Incorporation IN/Days	PHI (day)
PRE-EMERGENCE HERBICIDE								
dichlobenil [20] (Casoron 4 G)	4 to 6 lb ai/a (100 to 150 lb/a)	6 lb ai (150 lb/Al)	1	12	12	12	-/0	30
diuron [7]2 (Diuron 4L)	1.6 – 3.2 lb ai (1.6 – 3.2 quarts)	3.2 lb ai (3.2 quarts)	2	3	12	24	0.5"/(14)	-
indaziflam [29] (Alion)	0.04 - 0.08 lb ai (3.5 - 6.5 fl oz)	0.09 - 0.13 lb ai (7.0 - 10.3 fl oz)	2	3	12	12	-(21)	14
isoxaben [21] (Trellis SC)	0.5 - 1 lb ai (16 - 31 fl oz)	1.0 lb ai (31 fl oz)	2	-	0	0	0.5"/(21)	365 (nb)
norflurazon [12] (Solicam DF)	1.95 - 3.93 lb ai (2.5 - 5 lb)	3.93 lb ai (5 lb)	-	0	18	18	0.5-1"/(28)	60
oryzalin [3] (Surflan)	2 - 6 lb ai (2 - 6 qt)	12 lb ai (12 qt)	-	2.5	0	0	1"/(21)	N/A
pendimethalin [3] (Prowl H2O)	1.9 - 4 lb ai (2-4.2 qt)	4 lb ai (4.2 qt)	2	1	0	12	1"/(-)	60
pronamide [3] (Kerb SC)	1 - 4 lb ai (2.5 – 9.5 pt)	4 lb ai (9.5 pt)	1	12	12	0	1-2"/(2)	N/A
simazine [5] (Princep 4L)	2 - 4 lb ai (2 to 4 qt)	4 lb ai (4 qt)	1	12	12	12	0.5"/(-)	14
PRE- AND POSTEMERGENCE HERBICIDES								
halosulfuron [2] (Sanda)	0.03 - 0.094 lb ai (0.6 - 2 oz)	0.13 lb ai (2.6 oz)	2	1.5	12	9	0.5"/(-)	1
oxyfluorfen [14] (generic)	0.5 - 2 lb ai (1 - 8 pt)	1.5 to 2 lb ai (6- 8 pt)	1	-	0	0	0.25"/(21)	60
oxyfluorfen + penoxsulam [14 + 2] (Pindar GT)	1.47+0.03 lb ai (1.5 - 3 pints)	2.2 + 0.04 lb ai (4.5 pt)	-	1	48	30	0.5"/(21)	60
rimsulfuron [2] (Matrix)	0.03 to 0.06 lb ai (2 - 4 oz)	0.06 lb ai (4 oz)	2	1	12	12	0.5"/(14)	7
mesotrione [27] (Broadworks, Motif)	0.09 - 0.18 lb ai (3 - 6 fl oz)	0.36 lb ai (12 fl oz)	3	1.5-5	12	18	-(21)	30
POSTEMERGENCE HERBICIDES								
2,4-D [4] (generic)	0.95 - 1.4 lb ai (see label)	2 lb ai (see label)	2	2.5	12	1	n/a	14
carfentrazone [14] (Aim EC)	0.01 - 0.03 lb ai (1 -2 fl oz)	0.079 lb ai (7.9 fl oz)	-	0.5	0	0	n/a	3
clethodim [1] (Select max)	0.07 - 0.12 lb ai (9 - 16 fl oz)	0.5 lb ai (64 fl oz)	-	0.5	0	0	n/a	365 (nb)
clopyralid [4] (Stinger)	0.125 – 0.25 lb ai (0.33 to 0.66 pt)	0.25 lb ai (0.66 pt)	2	1	1	12	n/a	30
fluazifop [1] (Fusilade DX)	0.25 - 0.375 lb ai (16 - 24 fl oz)	1.125 (72 fl oz)	3	0.5	0	0	n/a	365 (nb)
glufosinate [10] (Rely 280 & generic)	0.88 - 1.5 lb ai (48 to 82 fl oz)	4.5 lb ai (246 fl oz)	3	0.5	0	6	n/a	14
glyphosate [9] (Roundup Powermax & generic)	0.38 - 3.69 lb ae (11 - 105 fl oz)	7.87 lb ae (224 fl oz)	-	0.5	0	0	n/a	3
paraquat [22] (Gramoxone SL)	0.625 - 1 lb ai (2.5 - 5 pt)	4 lb ai (20 pt)	5	0.5	0	0	n/a	28

Quick Reference Guide to Herbicides Labeled for Use in Pears (cont.)

Active ingredient [WSSA #] trade name	Rate pounds ai/a (product)	Max amount per season (product)	Max appl. per season/	Reappl. (Month)	Minimal Age (Month)	Replant (Month)	Soil Incorporation IN/Days	PHI (day)
pelargonic acid (Scythe)	3- 10 % v/v	N/A		n/a	n/a	n/a	n/a	1
pyraflufen [14] (Venue)	0.004 - 0.005 lb ai (3 - 4 fl oz)	0.0085 to 0.015lb ai (6.8 -12 fl oz)	2/3	1	12	0	n/a	0
saflufenacil [14] (Treevix)	0.04 lb ai (1 oz)	0.13 lb ai (3 oz)	3	0.7	1	1	n/a	7
sethoxydim [1] (Poast)	0.19 - 0.47 lb ai (1.5 - 2.5 pt)	1.41 lb ai (7.5 pt)	-	0.5	0	0	n/a	14

This table was developed as a quick reference. Always consult and follow the label recommendations.

1 WSSA # to Weed Science Society of America herbicide site of action group number.

Abbreviation: PHI = preharvest interval; nb = nonbearing; n/a = not applicable; "-" = no information