Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
FRUIT AND NUT CROPS				
Tree Fruits				
Preemergence				
flumioxazin @ 0.19 to 0.38 lb/A	Annual broadleaf and grass weeds.	**Chateau EZ** 6 to 12 oz/A.	Preemergence, dormant applications preferred or use shielded sprayer.	For trees established less than three years growing in soil with a sand plus gravel content of over 80 percent, use a maximum rate of 6 ounces per acre. Do not harvest fruit from treated trees within one year of application.
indaziflam @ 0.065 to 0.085 lb/A	Annual broadleaf and grass weeds.	**Alion 1.67 SC** 5 to 6.5 fl oz/A.	Apply in the fall and again in late spring	Use in orchards established three years or more. See label for details pertaining to replants in established orchards. Allow at least 90 days between applications. Use 5 fl oz/A on medium- and coarse-textured soils. Do not use on soils that have a 20% or greater gravel content. Do not use in orchards with open channels or cracks in soil. Do not apply more than 10.3 oz/A per year. Alion has a 14-day PHI. Tank mix glyphosate, glufosinate, or paraquat for non- selective POST weed control.
norflurazon @ 2 to 4 lb/A	Annual weeds and some perennials.	**Solicam 80 DF** 2.5 to 5 lb/A.	From fall to early spring before weeds emerge.	Orchard floor should be free of weeds. Use only on trees 18 months or older. May be applied to applies, cherries, pears, nectarines, peaches and plums.
oryzalin @ 2 to 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Surflan 4 AS** 2 to 4 qt/A.	Apply to weed-free soil. Mix any weed residue or trash thoroughly into soil before application.	Sprayer must have thorough agitation and avoid spray drift to foliage. For broader spectrum of control, Surflan may be tank mixed with simazine. See label for details. May be used on apples, peaches, pears and most other tree fruits. Use low rate for short-term (4 months) weed control and high rate for 6- to 8-month weed control.
pendimethalin @ 1.9 to 3.8 lb/A	Annual grasses and some broadleaf weeds.	**Prowl H2O 3.8 AS** 2 to 4 qt/A.	Preemergence.	Most effective when adequate rainfall or irrigation is received within 7 days of application. Do not apply to newly transplanted trees until ground has settled around roots. Apply with paraquat to control emerged weeds. Prowl has a 60-day preharvest interval (PHI). May be applied as sequential applications so long as total amount used does not exceed 4.2 qt/A. Allow at least 30 days between applications.
simazine @ 2 to 4 lb/A	Annual weeds, primarily broadleaves.	**Princep** 2 to 4 qt/A of 4L.	From fall to early spring before weeds emerge.	Apples, peaches, plums, nectarines, cherries, pears should be established 1 year before using Princep. Do not apply more than 4 qt/A (4 lb ai/A) per year. PHI for apples is 150 days.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
FRUIT AND NUT CROPS **Tree Fruits** **Preemergence [cont.]**				
terbacil @ 0.4 to 3.6 lb/A	Annual weeds and some perennials.	**Sinbar 80W** 0.5 to 4 lb/A.	From fall to early spring before weeds emerge.	**NEWLY PLANTED OR NON-BEARING ORCHARDS:** Apply once soil has settled after transplanting. Apply no more than 1 lb per acre per year. For best results apply 0.5 lb in late winter or early spring followed by another 0.5 lb when control from the initial application fails. Do not apply to soils coarser than sandy loam having < 2% organic matter. Tank mix with paraquat for non-selective POST weed control. **ESTABLISHED, BEARING ORCHARDS (>3 YEARS):** Apply in the spring or after harvest in the fall before weeds emerge or before weeds exceed 2" tall. Some chlorosis of weakened trees may occur. DO NOT use Sinbar on sand, loamy sand, or gravelly soils or on eroded areas where tree roots are exposed. Rate is soil texture dependent. See label for details. DO NOT use on any soil with less than 1% organic matter. Use rate cannot exceed 3 lb/A unless soil organic matter is >2%.
Tree Fruits **Postemergence**				
fluazifop-P @ 0.13 to 0.38 lb/A	Annual and perennial grasses, including johnsongrass and bermudagrass.	**Fusilade DX 2 EC** 8 to 24 fl oz/A.	When grasses are actively growing. See label for growth stages. Repeat applications needed for bermudagrass and johnsongrass.	Do not use on bearing apples or pears. Do not harvest apricots, cherries, nectarines, peaches, plums or prunes within 14 days of application.
glyphosate @ 0.75 to 3.75 lb/A	Annual weeds, johnsongrass and bermudagrass.	**Glyphosate** (4 lb/gal formulations) 1 to 5 qt/A in 10 to 20 gal water.	To actively growing vegetation.	Apply to peach orchards that have been planted for 2 years or more. Application **must** be made with a shielded boom sprayer or wiper applicator which prevents any contact of glyphosate with the peach foliage or bark. Remove suckers and hangers at least 10 days before application. Misapplication of Roundup around peach trees can result in severe tree injury or death. Use 20 gpa or less of clean water.
paraquat @ 0.6 to 0.9 lb/A	Annual weeds and foliage of perennials.	**Gramoxone 3SL** 1.7 to 2.7 pt/A.	Apply in spring with preemergence herbicide. If needed, repeat alone throughout the season as required to contain weeds.	Apply directly to weed foliage. May be used with preemergence material to eliminate existing weeds or 6 to 8 weeks later to eliminate escape weed plants. May be used in apples, cherries, peaches, nectarines, pears, plums, prunes and apricots. PHI in peaches is 14 days.
sethoxydim @ 0.19 to 0.5 lb/A	Annual and perennial grasses.	**Poast 1.5 EC** 1 to 2.5 pt/A.	Apply to small annual grasses preferably within 14 days after emergence. See label for timing for perennial grasses.	Low spray volumes (10 GPA) generally improve control. Add 1% v/v crop oil concentrate. PHI for apple is 14 days, PHI for peach is 25 days.
Blackberry, Raspberry, Blueberry **Preplant**				
glyphosate @ 1 to 4 lb/A	Annual grasses and broadleaf weeds.	**Glyphosate** (4 lb/gal formulations) 1 to 4 qt/A	Prior to planting for planting into a weed free bed.	Apply directly to emerged weeds. Provides only postemergence control. Wait at least 3 days between application and planting.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Blackberry, Raspberry, Blueberry Preemergence				
dichlobenil @ 4 lb/A	Annual broadleaf and grass weeds.	**Casoron 4G** 100 lb/A	Early winter and not later than mid-February.	Shallow incorporation or irrigation of ½ to 1-inch recommended. Apply to bearing and nonbearing plants. Do not apply when shoot emergence is occurring. **Established plants (>1 year).**
indaziflam @ 0.045 to 0.065 lb ai/A	Annual grasses and broadleaf weeds. Also controls bermudagrass.	**Alion 1.67E** 3.5 to 5 fluid oz/A.	Dormant application between late fall and early spring before budbreak.	Use only in plantings at least 3 years old. May tank mix with other preemergence herbicides to broaden spectrum of control and also with nonselective herbicides for burndown of emerged weeds. Apply as a directed spray. Sequential applications may be made with at least 90 days between applications. Do not apply more than a total of 7.0 fl oz/A per year on soils containing <1% OM, or 10.0 fl oz/A per year on soils containing ≥1% OM.
isoxaben @ 0.5 to 1 lb/A	Annual broadleaf weeds.	**Trellis SC** 16 to 31 fl oz/A	Sequential applications throughout the year.	Can be applied to new plantings after soil has settled and to established plants. Do not apply more than twice per crop year, total amount applied cannot exceed 1 lb ai/A (31 fl oz) per year.
mesotrione @ 0.1 to 0.2 lb/A	Broadleaves weeds.	**Callisto** 3 to 6 fl oz/A.	Pre-bloom.	Apply as a directed spray. Callisto has some POST activity, add 1% v/v crop oil concentrate. Sequential applications of 3 fl oz/A can be made as long as they are at least 14 days apart. No more than 6 fl oz/A per season. May cause bleaching. Take care to ensure the adjuvant is not one known to injure caneberry leaves. **Established plants (>1 year).**
napropamide @ 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Devrinol DF-XT or 2-XT** 8 lb/A or 2 gal/A	Early spring or after harvest.	Apply to a weed-free surface or tank mix with a POST herbicide. Must be incorporated with irrigation or rainfall within 24 hours. Can be applied to new plantings as long as soil has settled and to established plants. Do not exceed 8 lb/A or 2 gal/A per crop cycle.
norflurazon @ 2 to 4 lb/A	Annual grasses and small-seeded broadleaves and some seedling perennials.	**Solicam DF** 2.5 to 5 lb/A.	Apply from fall to early spring while plants are dormant.	Apply while plants are dormant. Limit to one application per year. Do not apply within 60 days of harvest. Use higher rates on higher clay soil. May cause some bleaching or yellowing. Residual control is expanded when mixed with simazine. Tank mix with paraquat to control emerged weeds. **Established plants (>18 months).**
oryzalin @ 2 to 6 lb/A	Annual grasses and small-seeded broadleaf weeds	**Surflan 4AS** 2 to 6 qt/A.	Sequential applications throughout the year	Irrigation or rainfall of ½ to 1-inch needed for proper activation.Can be applied to new plantings as long as soil has settled and to established plants. Sequential applications can be made at least 2.5 months apart. Do not exceed 12 qt/A per year.
pendimethalin @ 1.9 to 11.9 lb/A	Annual grasses and small-seeded broadleaf weeds	**Satellite HydroCap** 2 to 6.3 qt/A.	Sequential applications throughout the year	Apply as a directed application. Do not apply over the top of canes, or primocanes withleaves, buds, or fruit. Sequential applications can be made with at least 30 days between applications. Do not exceed 6.3 qt/A per year.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
BLACKBERRY, RASBERRY, BLUEBERRY Preemergence [cont.]				
simazine @2 to 4 lb/A	Annual broadleaf and grass weeds.	**Princep 4L** 2 to 4 qt/A.	Before bud break and again after harvest.	Apply 2 qt/A in the spring followed by 2 qt/A in the fall. Apply before weeds emerge in the spring and before bud break. On plantings <6 months, use 1 qt/A. The addition of oryzalin, norflurazon, or pendimethalin will extend residual grass control. Do not apply when fruit is present or illegal residues may result.
terbacil @ 0.4 to 1.6 lb/A	Annuals and some perennials.	**Sinbar 80W** 1 to 2 lb/A.	In spring before fruit set or after harvest in the fall.	Apply in early fall or spring, prior to fruit set. Do not contact foliage. Do not apply within 70 days of harvest. Apply with a minimum of 20 GPA. Do not use on sand or loamy sand soils. Do not use on soils with <1% OM. **Established plants (>1 year**).
Blackberry, Raspberry, Blueberry Pre or Postemergence				
flumioxazin @ 0.19 lb/A	Annual grasses and broadleaves.	**Chateau EZ** 6 fl oz/A	May be applied as a PRE or POST. PHI is 7 days.	Apply as a directed spray to plantings established 1 year or longer. Use ONLY 1 application per year. Mix with paraquat for non-selective POST control. DO NOT tank mix with Zeus Prime.
sulfentrazone + carfentrazone @ 0.19 to 0.37 lb/A + 0.02 to 0.04 lb/A	Annual grasses and broadleaves. Yellow nutsedge	**Zeus Prime XC** 7.7 to 15.2 fl oz/A	May be applied as a PRE or POST. PHI is 3 days.	Apply as directed spray to caneberries that have been established 2 years or longer. If applying in a band and 50% or less of the area is treated Zeus may be applied twice with in a 12 month period. Allow at least 60 days between applications. Zeus has a 3 day PHI. Spray water must have a pH from 5.0 to 9.0 for optimum herbicide performance. Tank mix with paraquat for non-selective POST weed control. Sequential applications of Zeus are the most effective on yellow nutsedge. See label for details. For broad spectrum residual control of annual grasses tank mix with oryzalin or pendimethalin. Zeus has no postemergence activity on grass weeds.
rimsulfuron @ 0.063 lb/A	Annual grasses and broadleaves.	**Solida 25 WDG, Matrix 25 WDG** 4 oz/A	May be applied as a PRE or POST. PHI is 14 days.	For broad spectrum residual control, tank mix rimsulfuron with oryzalin or pendimethalin. For nonselective POST weed control, tank mix rimsulfuron with paraquat. Rainfall for herbicide activation is necessary within 2 to 3 weeks of application. Do not apply within 14 days of harvest. The pH of spray solution should be in the range of 4 to 8. Rimsulfuron may be applied as a sequential application so long as total use rate does not exceed 4 oz/A per year and application is made in band to less than 50% of the row spacing. Apply prior to primocane emergence or after primocanes are 3 ft. tall to minimize primocane injury. If primocanes are emerged at time of application chlorosis and stunting will occur but they will recover after several weeks. **Established plants (>1 year).**

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Blackberry, Raspberry, Blueberry				
Postemergence				
carfentrazone @ 0.016 to 0.031 lb/A for weed control @0.1 lb/A for primocane control	Annual broadleaves.	**Aim 2EC** **1** to 2 fl oz/A for weed control. 6.4 fl oz/A for primocane supression.	Apply to emerged and actively growing weeds.	Apply to primocanes as post-directed spray when they are approximately 6 inches tall. Use a crop oil concentrate at 1% v/v or non- ionic surfactant at 0.25%. Avoid contact with vegetation, flowers and fruit or injury will occur. Sequential applications can be made with at least 14 days between applications. Do not exceed 25 oz/A per year. Do not apply within 15 days of harvest. A shielded or hooded sprayer must be used to apply to newly established plantings.
clethodim @ 0.09 to 0.12 lb/A	Annual and perennial grasses ONLY.	**Select 2EC or Select Max** 6 to 8 or 12 to 16 fl oz/A	Apply to emerged and actively growing weeds.	The **Select Max** formulation is labeled for **bearing** caneberries and can be applied up to within 7 days of harvest. **All other clethodim formulations can only be used on nonbearing caneberries.** Low rates are for annual grass weeds. High rates and sequential applications are for perennial grasses (bermudagrass or johnsongrass). The addition of a non-ionic surfactant at 0.25 % v/v is required.
fluazifop @ 0.19 to 0.38 lb/A	Annual and perennial grasses ONLY.	**Fusilade DX** 12 to 24 fl oz/A.	Apply to emerged and actively growing weeds.	Sequential applications will be necessary for perennial grass control. Add a non-ionic surfactant (1 quart/100 gallons of water) or crop oil concentrate (1 gallon/100 gallons of water). Fusilade has a 1 day PHI. Total use cannot exceed 48 fl oz per acre per year. DO NOT apply more than 24 fl oz in a single application. Wait at least 14 days to make sequential application.
sethoxydim @ 0.2 to 0.5 lb/A	Annual and perennial grasses ONLY.	**Poast 1.5EC** 1 to 2.5 pt/A.	Apply to emerged and actively growing weeds.	Sequential applications will be necessary for control of perennial grasses. Do not apply within 45 days of harvest. Use a crop oil concentrate at 1% v/v. Do not exceed 5 pt/A per year.
glyphosate @ 1 to 2 lb/A	Annual and perennial weed control.	**Glyphosate** (4 lb/gal formulations) 2 to 4 pt/A.	Apply from late fall to early spring.	EXTREME care must be taken to PREVENT glyphosate contact with the crop. Glyphosate will cause severe crop injury or death if it contacts caneberry plants. Caneberries are least susceptible to injury when dormant or in early spring. Susceptibility increases from bloom until caneberries are completely dormant. Wiper applicators may be used for glyphosate application to weeds. Do not apply within 14 days of harvest. Some generic formulations require additional surfactant. Roundup WeatherMax is not registered on raspberries.
paraquat @ 0.5 to 1 lb/A	Annual weeds and foliage of perennials.	**Gramoxone 3SL** 1.3-2.7 pt/A.	Apply to emerged and actively growing weeds.	Direct spray to weed foliage and avoid any green or exposed tissues on the blackberry. Make no more than five applications per year. Use a crop oil concentrate at 1% v/v or non- ionic surfactant at 0.25%. Can be tank mixed with PRE herbicides for residual activity. Contact with new growth will cause injury, in most cases injury is transient.
pelargonic acid	Annual weeds and foliage of perennials.	**Scythe** 3% -10% v/v.	Apply to emerged and actively growing weeds.	The only herbicide recommended for weed control in organic production systems. Herbicide must have direct contact and adequate coverage with the foliage of young weeds for activity.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Blueberry ONLY Postemergence				
glufosinate @ 0.75 to 1.25 lb/A	Annual and perennial weeds.	**Rely 280** 48 to 82 fl oz/A.	Postemergence as required to contain weeds. Use in the spring and fall as a burndown when applying preemergence herbicides.	Avoid contact or drift onto green tissue. Shielded applications are recommended. Repeat application is needed to control regrowth. Do not exceed 246 fl oz/A of Rely 280 per year, or no more than three applications of 82 fl oz/A. Do not apply within 14 days of harvest. Should be tank mixed with a preemergence herbicide for residual control.
Grape Preemergence				
dichlobenil @ 4 to 6 lb/A	Annuals and many perennials.	**Casoron 4G** 100 to 150 lb/A.	In early winter and not later than mid-February.	Granular form preferred. Apply in early spring. Incorporate lightly for best results. May be used in vineyards in first year after transplanting after vines are established. Do not apply immediately after transplanting.
flumioxazin @ 0.19 to 0.375 lb/A	Annual grasses and small broadleaf weeds.	**Chateau 51 WDG** 6 to 12 oz/A.	Preemergence, dormant applications preferred or use shielded sprayer.	Apply with hooded or shielded application equipment. Grapes established less than 2 years must be shielded with grow tubes. Flumioxazin may only be used in table grapes after completing harvest and before bud break. Flumioxazin may be applied in vineyards producing grapes used for wine or juice after bud break so long as hooded application equipment is used. DO NOT tank mix with glyphosate after bud break. DO NOT apply more than 6 oz per acre to vines established less than 3 years planted on soils having a sand plus gravel content that exceeds 80%. Flumioxazin formulations have a 60-day PHI.
isoxaben @ 0.5 to 1.0 lb/A	Annual broadleaf weeds.	**TrellisSC** 16 to 31 fl oz/A.	Preemergence.	In newly planted vineyards apply once soil has settled after transplanting. Total use rate per year (from harvest to harvest) cannot exceed 31 fl. oz/A. Trellis SC has a 60 day PHI. For residual control of annual grasses, tank mix with oryzalin or pendimethalin. Tank mix with glyphosate, paraquat, or glufosinate for non-selective POST weed control. PHI is 60 days.
norflurazon @ 2 to 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Solicam 80 DF** 2.5 to 5 lb/A.	Fall to early spring. Do not apply to sandy loam soils after bud break.	Do not use on sandy or gravelly soils, use low rate on light soils. Vines must be established for 2 years. Do not use on nursery stock. PHI is 60 days.
oryzalin @ 2 to 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Surflan 4 AS** 2 to 4 qt/A.	Apply to weed-free soil. Mix any weed residues or trash thoroughly into soil before application.	Sprayer must have thorough agitation and avoid spray drift to foliage. Use low rate for short- term (4 months) weed control and high rate for 6- to 8-month weed control. See label for further details. Surflan may be tank mixed with simazine in established vineyards to broaden spectrum of control. May be tank mixed with glyphosate, paraquat, or glufosinate for postemergence control.
oxyfluorfen @ 1.25 to 2.0 lb/A	Annual broadleaf weeds.	**Goal 2 XL** 5 to 8 pt/A.	Use only on dormant grapes for preemergence or postemergence control of weeds.	Direct spray to base of plant. Do not apply after buds begin to swell or when foliage or fruit is present. Do not apply to grapes established less than 3 years unless vines are on a trellis wire at least 3 feet above the ground.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
FRUIT AND NUT CROPS **GRAPES** **Postemergence [cont.]**				
pendimethalin @ 2.0 to 4.0 lb/A	Annual broadleaf and grass weeds.	**Prowl H2O, Sateillite HydroCap** 2.0 to 4.0 qt/A.	Preemergence. Apply only to dormant plants. Do not apply after bud swell.	In newly planted grapes allow soil to settle after transplanting before applying Prowl. Use only during dormancy (prior to bud swell) when applying around newly planted and 1-year-old vines. In bearing vineyards apply any time after harvest, during winter dormancy in spring, and in season before harvest. Use rate cannot exceed 6.3 quarts/acre per year. Prowl H2O has a 21-day PHI. Tank mix with Zeus Prime, simazine or rimsulfuron for expanded residual control of broadleaf weeds. Apply in combination with paraquat, glyphosate, or glufosinate for non-selective POST weed control.
simazine @ 2 to 4 lb/A	Annual grasses and broadleaf weeds.	**Princep 4L or 90WDG** 2 to 4 qt/A or 2.2 to 4.4 lb/A	Early spring before weeds emerge.	Vineyard must be at least 3 years old. May be tank mixed with Surflan, paraquat or Roundup. Tank mix with glyphosate, paraquat, or glufosinate for postemergence weed control. The addition of oryzalin, norflurazon, or pendimethalin will extend residual grass control several weeks.
Grape **Postemergence**				
clethodim @ 0.09 to 0.25 lb/A	Annual and perennial grasses.	**Select 2EC or Select Max** 6 to 8 or 12 to16 fl oz/A.	Postemergence to grasses.	Use on nonbearing crop only. Do not apply within one year of harvest. Effective for annual bluegrass control.
fluazifop-P @ 0.19 lb/A	Annual and perennial grasses including johnsongrass and bermudagrass.	**Fusilade DX 2EC** 1.5 pt/A.	Postemergence to grasses.	Apply to NONBEARING vines that will not be harvested within 1 year of application. Apply as a directed spray using 25 gal water/acre and 30 to 60 psi pressure. Use flat fan nozzle tips and DO NOT contact foliage. Always use a crop oil concentrate at 1% v/v or a nonionic surfactant at 0.25% v/v for best results. Make application to johnsongrass – 12 to 18 inches tall; bermudagrass – 3 inches tall or with 4- to 6-inch runners; annual grasses – 2 to 8 inches tall.
glyphosate @ 0.75 to 1.5 lb/A	Annual weeds, bermudagrass and johnsongrass.	**Glyphosate (4 lb/gal formulations)** 1 to 2 qt/A.	Apply to actively growing weeds.	Direct to base and avoid contact with green bark, foliage or suckers. Do not apply to vines less than 3 years old or within 14 days of harvest. See label.
paraquat @ 0.6 to 0.9 lb/A	Annual weeds and foliage of perennials.	**Gramoxone 3SL** 1.3 to 2.7 pt/A.	Apply in spring with preemergence herbicide. If needed, repeat alone throughout the growing season as required to contain weeds.	Do not allow herbicide to contact desirable foliage or immature, uncallused bark. Young vines must be shielded. Apply in a minimum spray volume of 20 gal./A with nonionic surfactant at 0.25 % v/v. Please note additional training requirements for applicators.
sethoxydim @ 0.3 to 0.5 lb/A	Annual and perennial grasses including johnsongrass and bermudagrass.	**Poast 1.5 EC** 1.5 to 2.5 pt/A.	Postemergence to grasses.	Do not apply within 50 days of harvest. Apply as a directed spray using 5 to 20 gal water/acre and 40 to 60 psi pressure. Use flat fan nozzle tips. Add crop oil concentrat at 1% v/v or nonionic surfactant at 01.25% v/v for optimal control. Use low rate on annual grasses up to 6 inches tall; high rate on annual grasses up to 12 inches tall and perennial grasses.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Strawberry Preplant				
acifluorfen @ 0.125 to 0.375 lb/A	Annual broadleaf weeds.	**Ultra Blazer 2L** 0.5 to 1.5 pt/A.	Apply banded application to crop row after final land preparation, prior to laying plastic and transplanting	Crop row: Make one banded application after final land preparation and before laying plastic mulch and transplanting. For best results, avoid soil disturbance during laying of plastic and planting of crop. Do not apply more than 3 pt/A per season.
EPTC @ 3 to 6 lb/A	Annual broadleaf and grass weeds. Yellow and purple nutsedge.	**Eptam 7E** 3 oz/A.	Apply after bed formation and prior to plastic laying and transplanting. Wait at least 45 days after application to transplant.	For best control of nutsedge, soil must have enough moisture for tuber sprouting. Allow 10 to 14 days for nutsedge tuber sprouting to occur, then lightly till to destroy shoots and dry the soil surface. Apply and incorporate Eptam 7E to prevent volatilization; immediately incorporate into soil to a depth of approximately 2 to 4 in. If possible, use a leveling device behind the incorporating equipment to leave soil surface as smooth as possible. Field traffic, excessive rainfall or irrigation, and other soil disturbances will reduce the level of nutsedge suppression. To avoid injury to following crops, irrigating at least 30 days prior to planting is recommended.
flumioxazin @ 0.1 lb/A	Annual broadleaf and grass weeds.	**Chateau SW** 3 oz/A	Apply after bed formation and prior to plastic laying and transplanting. Wait at least 30 days after application to transplant.	Crop row: Make one banded application after final land preparation and before laying plastic mulch. Wait at least 30 days after application to transplant. For best results, avoid soil disturbance during laying of plastic and planting of crop.
glyphosate @ 0.1 lb/A	Annual broadleaf and grass weeds.	**Roundup Powermax 3, others** 20 to 40 oz/A	Apply to emerged weeds. Wait at least 3 days after application to transplant.	May be used as a burndown prior to bed formation of after forming beds and before laying plastic. Wait at least 3 days to transplant.
napropamide @ 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Devrinol 50 DF** 8 lb/A.	Apply after bed formation and prior to plastic laying and transplanting. Wait at least 3 days after application to transplant.	Devrinol applied to the bed before laying the plastic has potential to injure strawberry plants. For plant bed treatment preplant incorporate to weed-free soil before laying plastic mulch. Soil should be well worked yet moist enough to permit a thorough incorporation to a depth of 2 in. Incorporate within 24 to 72 hr (depending on formulation) of application before laying plastic mulch. If weed pressure is from small-seeded annuals, apply Devrinol to the surface of the bed immediately before laying the plastic mulch. If soil is dry, water or sprinkler irrigate with sufficient water to wet to a depth of 2 to 4 in. before laying the plastic mulch. Apply the plastic mulch over the treated soil within 24 to 72 hr.
oxyfluorfen @ 0.125 to 0.375 lb/A	Annual broadleaf weeds.	**Goal 2XL** 2 pt/A.	Apply after bed formation and prior to plastic laying and transplanting. Wait at least 30 days after application to transplant.	Plastic mulch should be applied soon after Goal application. Best results occur when plastic is applied immediately after herbicide application. Incorporation is not necessary, but it may result in less crop injury. Soil disturbance after application will reduce weed control.
pendimethalin @ 0.7 to 1.4 lb/A	Annual broadleaf and grass weeds.	**Prowl H2O, Satellite HydroCap** 1.5 to 3 pt/A	Apply after bed formation and prior to plastic laying and transplanting.	Apply to formed bed before laying plastic. Frequent irrigation may reduce efficacy.
sulfentrazone @ 0.125 to 0.25	Annual grasses and small-seeded broadleaf weeds.	**Spartan 4F** 4 to 8 oz/A.	Apply to soil surface of pre-formed beds.	Rate is soil-type dependent. Use lower rate for coarse soils. Apply prior to planting and before weeds have emerged. Please refer to label for soil type restrictions.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
Strawberry - Postemergence				
clethodim @ 0.09 to 0.125 lb/A	Annual and perennial grasses ONLY.	**Select 2EC or Select Max** 6 to 8 or 9 to 16 fl oz/A.	Apply to emerged and actively growing weeds.	Multiple applications are required for perennial grass control. Repeat application on 14- to 21-day intervals. Add a crop oil concentrate at 1% v/v to increase efficacy. Use 0.25% v/v non-ionic surfactant with Select Max. Do not apply within 4 days of harvest.
clopyralid @ 0.125 lb/A	Broadleaf weeds, especially clovers, vetch, curly dock, horsenettle.	**Stinger 3 SL** 1/3 pt/A.	Apply in the spring up to 30 days before harvest.	**Section 24(c) label**. Make only 1 application in the spring. Do not use any surfactant or tank mix with other pesticides. May cause some injury in certain conditions. Do not compost treated vegetation.
sethoxydim @ 0.2 to 0.3 lb/A	Annual and perennial grasses ONLY.	**Poast 1.5EC** 1 to 1.5 pt/A.	Apply to emerged and actively growing weeds.	Multiple applications are required for perennial grass control. Repeat application on 14- to 21-day intervals. Do not apply within 7 days of harvest. Use a crop oil concentrate at 1% v/v. Do not exceed 2.5 pt/A per year.
Strawberry - Row Middles Only				
acifluorfen @ 0.125 to 0.375 lb/A	Annual broadleaf weeds.	**Ultra Blazer 2L** 0.5 to 1.5 pt/A.	Apply to row middles prior to weed emergence.	Do not allow spray to contact strawberry plants. May be used for sequential applications with at least 15 days between applications. Do not apply more than 3 pt/A per season.
carfentrazone @ 0.03 lb/A	Annual broadleaves, excellent control of morningglories.	**Aim 2EC** 2 fl oz/A	Apply to actively growing weeds less than 4 inches tall.	Apply post-directed/ shielded to the row middles. If contact with foliage occurs some burning will occur. Does not have activity on grasses. Use crop oil at 1% v/v or non-ionic surfactant at 0.25% v/v. Coverage is critical for good control. 0 day PHI
flumioxazin @ 0.1 lb/A	Annual broadleaf and grass weeds.	**Chateau SW or EZ** 3 oz/A or 3 fl oz/A	Apply to row middles prior to weed emergence. Do not apply after fruit set.	Do not allow spray to contact fruit or foliage. Necrotic speckling may occur. May injure or kill ryegrass in row middles. **Do not apply after fruit set**.
glyphosate @ 0.1 lb/A	Annual broadleaf and grass weeds.	**Roundup Powermax 3, others** 20 to 40 oz/A	Apply to actively growing weeds.	Avoid contact with foliage, fruit, and **plastic mulch** to avoid severe crop injury. PHI is 14 days.
napropamide @ 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Devrinol 50 DF** 8 lb/A.	Apply to row middles prior to weed emergence. Do not apply after bloom.	Do not apply if new foliage is expose to spray. May be tank mixed with paraquat to control emerged weeds. Rainfall or irrigation within 24 hours of application is needed for optimal activation. **Do not apply after bloom**.
paraquat @ 0.5 lb/A	Contact kill of all green foliage	**Gramoxone 3SL or 2SL** 1.3 to 2 pt/A	Apply to actively growing weeds less than 6 inches tall.	Apply post-directed/shielded to the row middles. If contact with foliage occurs some burning will occur. Make no more than 3 applications per season. PHI is 21 days.
pendimethalin @ 0.9 lb/A	Annual grasses and small-seeded broadleaves.	**Prowl H2O** 1.5 pt/A	Apply to row middles prior to weed emergence	Apply to row middles only. Must be activated with at leat ½-inch of rainfall. Do not apply if new foliage is exposed to spray. PHI is 35 days.
Pecans Preemergence				
norflurazon @ 2 to 4 lb/A	Annual grasses and some broadleaf annual weeds.	**Solicam 80 DF** 2.5 to 5 lb/A.	Apply in early spring or after harvest in the fall.	Do not apply until transplanted trees have completed their first growing season (fall application). Make only one application per year. Do not graze treated areas. May be tank mixed with paraquat. Do not apply when nuts are on the ground.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
PECANS Preemergence [cont.]				
oryzalin @ 2 to 4 lb/A	Annual grasses and small-seeded broadleaf weeds.	**Surflan 4AS** 2 to 6 qt/A.	Apply to weed-free soil. Mix any weed residues or trash thoroughly into soil before application.	Sprayer must have thorough agitation and avoid spray drift to foliage. May be tank mixed with glyphosate, paraquat or simazine. Use low rate for short-term control (2-4 months); high rate for long-term control (8-12 months). Sequential applications may be used so long as total use rate does not exceed 12 qt/A/year and there are 2.5 months between applications.
simazine @ 1 to 2 lb/A	Most annual broadleaf weeds and grasses.	**Princep 4L or 90WDG** 2 to 4 qt/A or 2.2 to 4.4 lb/A.	Apply in spring or early summer.	Direct to floor of orchard and avoid contact with foliage. Only use under trees established for at least 2 years. Do not use on sand or loamy sand soils. May be tank mixed with glyphosate, paraquat,or oryzalin. PHI is 21 days.
Pecans Postemergence				
fluazifop @ 0.13 to 0.38 lb/A	Annual and perennial grasses including johnsongrass and bermudagrass.	**Fusilade DX 2 EC** 8 to 24 fl oz/A.	Postemergence to grasses.	Do not apply to pecans within 30 days of harvest. Apply as a directed spray using 25 gal water/acre and 30 to 60 psi pressure. Use flat fan nozzle tips and DO NOT contact pecan tree foliage. Always use a crop oil concentrate at 1% v/v or a nonionic surfactant 0.25% v/v. Make application to johnsongrass – 12 to 18 inches tall; bermudagrass – 3 inches tall or with 4- to 8-inch runners; annual grasses – 2 to 8 inches tall.
glyphosate @ 0.75 to 1.5 lb/A	Annual weeds, johnsongrass and bermudagrass.	**Glyphosate (4 lb/gal formulations)** 1 to 2 qt/A.	To actively growing vegetation.	Direct to base of tree and do not allow drift to contact foliage or green bark. See label for details. Injury may occur due to systemic activity of glyphosate. May be tank mixed with oryzalin or simizine.
paraquat @ 0.65 to 1 lb/A	Annual weeds and foliage of perennials.	**Gramoxone 3SL** 1.3 to 2.7 pt/A.	Apply in spring and repeat as needed.	Directed spray. Do not allow spray to contact green stems, fruit or foliage of pecan tree. Do not apply when nuts to be harvested are on ground. May be tank mixed with simazine or oryzalin.
sethoxydim @ 0.3 to 0.5 lb/A	Annual and perennial grasses including johnsongrass and bermudagrass.	**Poast 1.5 EC** 1 to 2.5 pt/A.	Postemergence to grasses.	Do not apply within 15 day of harvest. Apply as a directed spray using 5 to 20 gal water/acre and 40 to 60 psi pressure. Use flat fan nozzle tips. Always use crop oil concentrate at 1% v/v. Use low rate on annual grasses up to 6 inches tall; high rate on annual grasses up to 12 inches tall and perennial grasses.