



WASHINGTON STATE UNIVERSITY  
EXTENSION

# Weed Control Stone Fruit

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## Seasonal Weed Control

| Weed                         | Chemical                         | Rate per Acre  | REI  | PHI  | MOA | Eff. | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------|----------------------------------|----------------|------|------|-----|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grass and/or broadleaf weeds | <b>indaziflam</b><br>Alion       | 3.5-6.5 fl oz  | 12 h | 14 d | 29  | NR   | WSSA Group 29: inhibits cellulose biosynthesis, disrupts cellulose formation in the cell wall. Alion is a pre-emergent annual grasses and broadleaf weed herbicide. Rate, timing and tank mixes will effect control. It will not control established perennials or emerged annuals. Excessive crop residue or leaf litter may also reduce efficacy. Apply to trees established for at least three years. Apply as a uniform broadcast or banded application to dry soil surface that does not have cracks or depressions. Do not use on sand or soils containing >20% gravel. Do not apply to frozen/snow covered soils or saturated soils. Light irrigation or rain within three weeks is necessary for incorporation. Spring applications are more effective if glyphosate was used in the previous fall or late summer to control perennial weeds. Avoid direct contact with foliage, green bark, or roots. |
|                              | <b>Fluridone</b><br>BrakeOn!     | 21 to 43 fl oz | 24 h | 30 d | 12  | NR   | Residual control of susceptible annual grass and broadleaf weed species when applied as a broadcast application prior to weed seed germination. Do not apply more than 43 fl oz per acre per application; Do not apply more than 43 fl oz per acre per crop year; Do not apply as a standalone residual herbicide to the same area more than 2 crop years in a row; do not apply if the soil is frozen or covered with snow; Do not apply when fruit intended for harvest are on the ground as illegal residues may result; Do not apply using mechanically-pressurized handguns; be cautious to use this product in sandy or low organic matter soil types.                                                                                                                                                                                                                                                   |
|                              | <b>dichlobenil</b><br>Casoron 4G | 100-150 lb     | 12 h |      | 20  | NR   | WSSA Group 20: inhibits cellulose biosynthesis, disrupts cellulose formation in the cell wall. A soil-active herbicide for long-term or seasonal control of most weeds. Dichlobenil can suppress the growth of some perennials (Canada thistle, quackgrass, field bindweed and bermudagrass), although higher use rates are recommended. Dichlobenil can be applied where weeds are present. Can be used in non-bearing orchards, as long as trees have been established for at least four weeks. More effective when applied in the fall when the soil is cool and still not frozen. Application before a rain will reduce volatility and improve weed suppression. For use in cherries, only.                                                                                                                                                                                                                |

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|------|------------------------------------------|-----------------|------|----------|-----|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <b>oxyfluorfen</b><br>Goal 2XL Herbicide | 2-6 pt          | 24 h | see note | 14  | NR   | WSSA Group 14: protoporphyrinogen oxidase (PPO) inhibitor. Pre-emergent and early post-emergent control of broadleaf weeds in dormant orchards. May require a tank-mix partner for grass control. It is most effective as a post-emergent when the seedling weeds have less than four leaves. Post-emergence weed control can be improved by tank-mixing with appropriate partners and adjuvants. Apply as a banded application to bare soil under healthy trees. Do not apply after tree buds start to swell or when foliage or fruits are present. Avoid direct plant contact. Moisture within 3 to 4 weeks will enhance pre-emergence herbicide activity. If used for preemergence weed control, use a minimum of 20 gallons of water per acre; use 40 or more gallons per acre of spray volume if applied postemergence.                                                                                                               |
|      | <b>oxyfluorfen</b><br>GoalTender         | 1-3 pt          | 24 h |          | 14  | NR   | See comments for Goal 2XL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|      | <b>pronamide</b><br>Kerb SC Herbicide    | 2.5-5 See Label | 24 h |          | 3   | NR   | WSSA Group 3: microtubule assembly inhibitor. Pronamide is a soil-applied product that is used for the control of grasses (annuals and some perennials) and some broadleaved species. It is most effective on cool season grasses. Pronamide can control some small weeds that have emerged. Pronamide should be applied in the fall after harvest, but before leaf drop and soil freeze up to trash-free soil. Use the lower rates for annual grasses and susceptible broadleaf weeds; use the higher rates for controlling quackgrass. Use rate will also be affected by soil texture; use lower rates on coarse soils. Rainfall or overhead irrigation is required following application. Soil temperatures above 55°F may result in reduced weed control. Do not apply around seedling trees less than 1 year old or fall-transplanted trees established less than 1 year or spring transplanted trees established less than 6 months. |

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|      | <b> rimsulfuron</b><br>Matrix SG | 4 oz          | 4 h | 14 d | 2   | NR   | WSSA Group 2: acetolactate synthase (ALS) inhibitor. Matrix SG has both pre-emergence and very early post-emergence activity. To broaden the weed control spectrum and/or extend the residual effectiveness rimsulfuron may be tank-mixed with other registered herbicides having a different mode of action. Tank mixes well with Alion. For maximum pre-emergence activity, the herbicide should be applied to a soil surface that is smooth and relatively free of crop and weed trash. Rainfall or irrigation is required within 2 weeks of application for pre-emergence incorporation. Susceptible weeds are controlled from 60 to 90 days after application. For best results, maintain spray tank solution at pH 5 to 7. Avoid contact with green bark, foliage, or fruit. 1 broadcast or 2 band applications. |

Rate and PHI indicated is for foliar application. Efficacy numbers denote the relative efficacy of a pesticide against a given pest on a 1 to 4 scale with 1 being low and 4 high efficacy. This information is based primarily on research conducted with WSU researchers in Washington.

## Temporary Weed Control

| Weed            | Chemical                     | Rate per Acre | REI  | PHI  | MOA | Eff. | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|------------------------------|---------------|------|------|-----|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Broadleaf weeds | <b>2,4-D</b><br>Saber        | 2-3 pt        | 48 h | 40 d | 4   | NR   | WSSA Group 4: synthetic auxin. Talk to your consultant for formulation and application recommendations to prevent crop safety concerns. Multiple trade names: Saber, Orchard Master (not on apricots and nectarines), Weedar 64, Amine 4 and 2,4-D. Kills most annual and many perennial broadleaf weeds. Apply as directed spray to weeds. Avoid contact with foliage, limbs and trunk. Do not apply during windy periods. May be used at any time except during bloom but most effective when weeds are small and growing actively. Can be absorbed by tree roots and cause serious injury. Best results are obtained when applied within 2 days following an irrigation and the weeds are growing actively. In sprinkler-irrigated orchards, apply only after irrigation and never to dry or bare ground. Do not apply to trees established in orchard for less than 1 year. Do not make more than 2 applications per year, minimum of 75 days between applications. Do not harvest within 40 days of application. |
|                 | <b>clopyralid</b><br>Stinger | 0.33-0.67 pt  | 12 h | 30 d | 4   | NR   | WSSA Group 4: synthetic auxin. Controls many difficult to control weeds in the sunflower, buckwheat (or knotweed), nightshade and legume families. Apply to actively growing weeds in a minimum of 10 gallons of water per acre. Apply to Canada thistle after a majority of basal leaves have emerged, but prior to bud stage. Up to two applications may be made during the crop year, but do not exceed a total of 2/3 pint of product per sprayed acre per year. Do not apply within 30 days of harvest.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|------|----------------------------------|---------------|------|-----|-----|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <b>pyraflufen-ethyl</b><br>Venue | 3-4 fl oz     | 12 h | 0 d | 14  | NR   | Group 14: protoporphyrinogen oxidase (PPO) inhibitor. A contact herbicide that is active on annual broadleaf weeds. Use as a directed spray when the weeds are less than 4 inches tall or 3 inches across. Thorough coverage is required for control. Apply during the dormant season and prior to bloom. Addition of a crop oil concentrate or non-ionic surfactant will enhance control. Keep off green stems and foliage; will burn off young green crown and root suckers. Use lower rates for small weeds and higher rate for larger weeds. Tank mixing can increase the weed spectrum that is controlled. Do not exceed 3 applications per year for weed control, 2 applications per year for sucker management, or 3 total applications. |

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|------------------------------|---------------------------------------------------|---------------|------|------|-----|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grass and/or broadleaf weeds | <b>Paraquat dichloride</b><br>Paraquat dichloride |               | 48 h |      | 22  | NR   | See label for mixer/loader and applicator filtering face respirator and enclosed cab requirements. Do not allow spray to contact green stems (except suckers), or foliage. Use a shield or wrap plant when spraying around young trees.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                              | <b>glufosinate-ammonium</b><br>Rely 280 Herbicide | 48-82 fl oz   | 12 h | 14 d | 10  | NR   | WSSA Group 10: glutamine synthase inhibitor. Foliage applied, contact herbicide used to control annual broadleaf and grass weeds and to suppress perennial weeds. Apply when weeds are small and actively growing. Stressed weeds may be more difficult to control. Use rate is dependent on weed size and growth stage. Use as a directed spray. Avoid contact of spray or mist on new foliage or green shoots; only apply to trees with calloused, mature, brown bark. Thorough coverage of target weeds is essential for control. No additional surfactant is needed. Do not apply more than a maximum cumulative amount of 164 fl oz per acre per 12 month period. Do not make more than 2 applications per 12-month period at 82 fl oz per acre. Separate sequential applications by at least 28 days.                                                                                                                                                                                                                                                                                                                                                                             |
|                              | <b>glyphosate</b><br>glyphosate                   | 1-3 qt        | 4 h  | 17 d | 9   | NR   | WSSA Group 9: EPSPS inhibitor. Glyphosate is a broad-spectrum, systemic herbicide. It is one of the most commonly applied herbicides and is sold under many trade names. Some of the products containing glyphosate are identical to the original product, others vary in their additives (such as wetting agents) and amount of active ingredient. The parent acid, the "active ingredient," is formulated with ammonium, potassium, or isopropylamine and varies in content per gallon from one product to another. The active ingredient is called "acid equivalent" in glyphosate products, and can range from 3 to 5 pounds per gallon, depending on the product. If you switch products, compare the acid equivalent of the two, and make rate adjustments, if necessary. Repeated use of glyphosate has led to the development of glyphosate resistance in many species common to perennial systems in the West Coast; rotate with other foliar-applied herbicides. Water quality and quantity can affect glyphosate performance; high pH, presence of cations, or dirty water can reduce efficacy. A minimum of 17 days between applications. See label regarding adjuvant use. |

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|      | <b>Quizalofop-P-ethyl +<br/>Glufosinate- ammonium</b><br>Zalo |               | 12 h | 14 d | 1, 10 | NR   | Do not reapply within 28 days of previous application; Do not exceed 0.165 lb quizalofop-p-ethyl per acre per calendar year; Do not exceed 3.0 lb glufosinate ammonium per calendar year. |

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See General Recommendations for guidelines on table use. Read all product labels carefully.