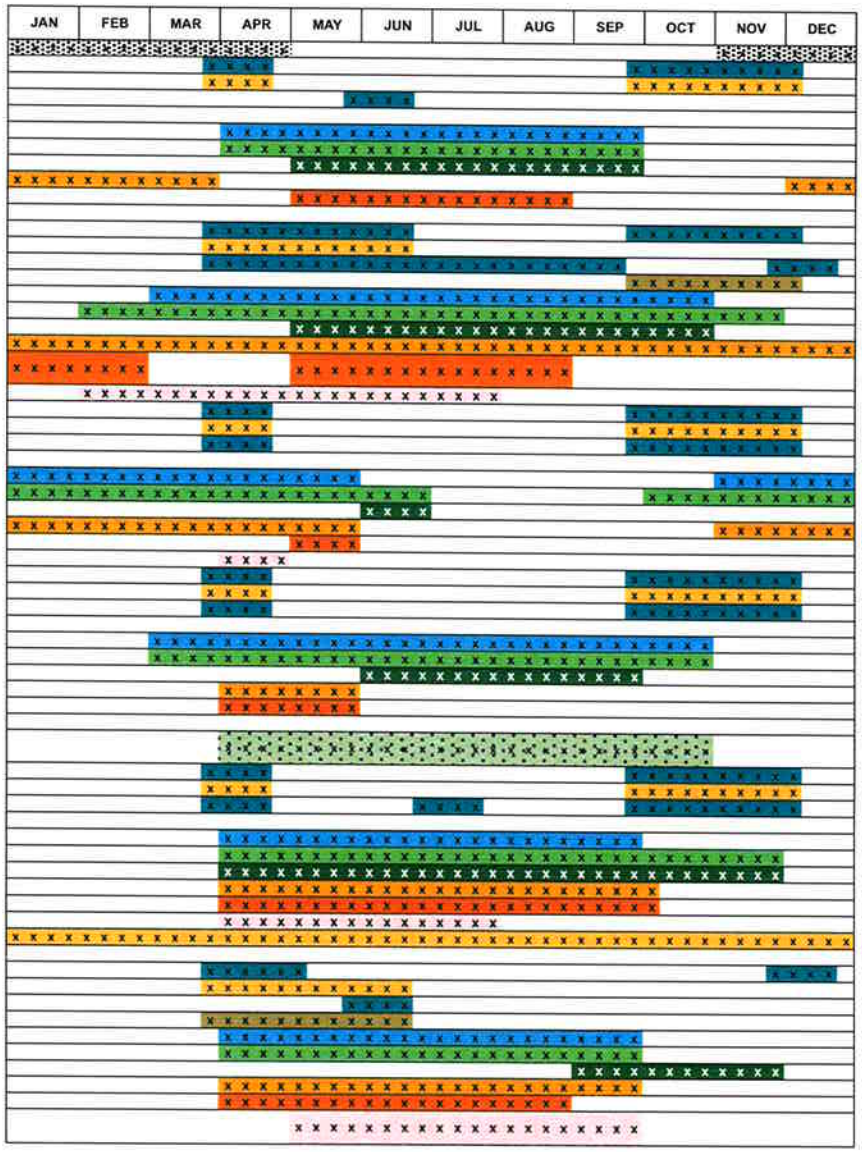
Appendix B. Calendar of Agricultural Activities

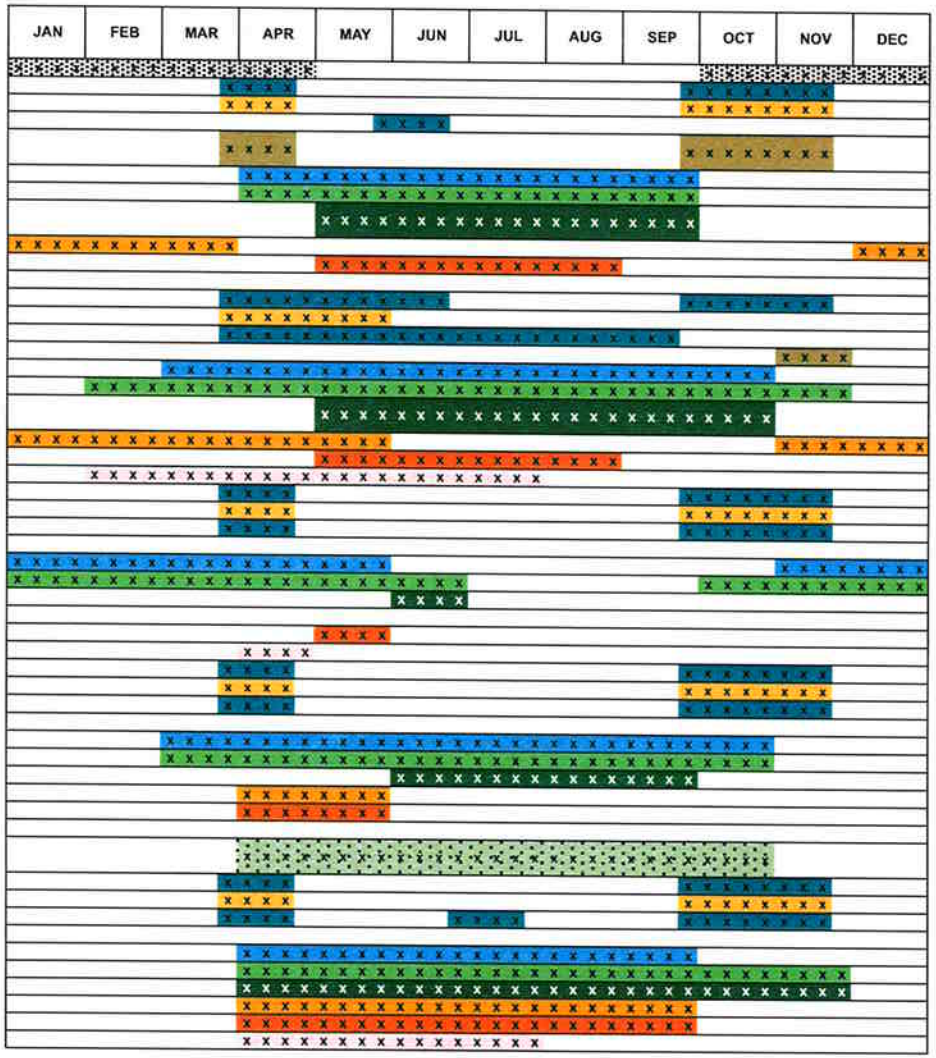
Appendix B

BUTTE-YUBA-SUTTER AG ACTIVITIES CALENDAR 2008

Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	November through April (may extend to Oct and May)
Alfalfa	Tillage	Fall or early spring, every 4-7 years
Alfalfa	Field Prep and Planting	Fall or early spring, every 4-7 years
Alfalfa	Nutrient Applications	Late Spring
Alfalfa	Manure Applications (if any)	Rare; At Planting of new fields (not annually)
Alfalfa	Irrigation	April through September
Alfalfa	Growing Season	April through September
Alfalfa	Harvest	May through September (typically 5-6 cuttings)
Alfalfa	Pesticide Applications: Herbicides	December through March
Alfalfa	Pesticide Applications: Insecticides	May through August
Alfalfa	Pesticide Applications: Fungicide	Rare
Fruit and Nut Crops (Orchards)	Tillage	Fall or Spring
Fruit and Nut Crops (Orchards)	Field Prep and Planting	Spring (some Fall for potted trees)
Fruit and Nut Crops (Orchards)	Nutrient Applications	Spring and Summer & late Fall
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	Fall post harvest
Fruit and Nut Crops (Orchards)	Irrigation	March through October
Fruit and Nut Crops (Orchards)	Growing Season	February through November
Fruit and Nut Crops (Orchards)	Harvest	May (cherries) through October (walnuts)
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	Possible all year
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	May through August & winter months (dormant sprays through harvest)
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	February through July
Grains	Tillage	Fall or early spring
Grains	Field Prep and Planting	Fall or early spring
Grains	Nutrient Applications	Fall or early spring
Grains	Manure Applications (if any)	NA
Grains	Irrigation	November through May
Grains	Growing Season	October through June
Grains	Harvest	June
Grains	Pesticide Applications: Herbicides	November through May
Grains	Pesticide Applications: Insecticides	May
Grains	Pesticide Applications: Fungicide	April
Irrigated Pasture	Tillage	Fall or early spring
Irrigated Pasture	Field Prep and Planting	Fall or early spring
Irrigated Pasture	Nutrient Applications	Fall or early spring
Irrigated Pasture	Manure Applications (if any)	NA
Irrigated Pasture	Irrigation	March through October
Irrigated Pasture	Growing Season	March through October
Irrigated Pasture	Harvest	June through September
Irrigated Pasture	Pesticide Applications: Herbicides	April through May if any
Irrigated Pasture	Pesticide Applications: Insecticides	April through May if any
Irrigated Pasture	Pesticide Applications: Fungicide	N/A
Livestock	Livestock on ranches & pastures in drainage/subwatershed	April through October if any
Vegetable Crops (Field/Row Crops)	Tillage	Fall or early spring
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Fall or early spring
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Fall or early spring or summer
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Little, if any
Vegetable Crops (Field/Row Crops)	Irrigation	April through September
Vegetable Crops (Field/Row Crops)	Growing Season	April through November
Vegetable Crops (Field/Row Crops)	Harvest	April through November
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	April through September
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	April through September
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	April through July
Seed Crops	Plant / Harvest	Year round
Seed Crops	Pesticide Applications:	As necessary
Rice	Tillage	late Fall or spring each year
Rice	Field Prep and Planting	spring
Rice	Nutrient Applications	Late Spring
Rice	Manure Applications (if any)	Spring (usually for organic fields)
Rice	Irrigation	April through September
Rice	Growing Season	April through September
Rice	Harvest	September through november
Rice	Pesticide Applications: Herbicides	April through September
Rice	Pesticide Applications: Insecticides	April through August
Rice	Pesticide Applications: Fungicide/Algaecide	May through September



Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	October – April (varies year to year)
Alfalfa	Tillage	Fall or early spring, every 4-7 years
Alfalfa	Field Prep and Planting	Fall or early spring, every 4-7 years
Alfalfa	Nutrient Applications	Late Spring
Alfalfa	Manure Applications (if any)	Infrequent, only at Planting of new fields
Alfalfa	Irrigation	April through September
Alfalfa	Growing Season	April through September
Alfalfa	Harvest	May – September (typically 3-4 cuttings)
Alfalfa	Pesticide Applications: Herbicides	December through March
Alfalfa	Pesticide Applications: Insecticides	May through August
Alfalfa	Pesticide Applications: Fungicide	Rare
Fruit and Nut Crops (Orchards)	Tillage	Fall or Spring
Fruit and Nut Crops (Orchards)	Field Prep and Planting	Spring (some Fall for potted trees)
Fruit and Nut Crops (Orchards)	Nutrient Applications	Spring and Summer
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	Fall post harvest
Fruit and Nut Crops (Orchards)	Irrigation	March through October
Fruit and Nut Crops (Orchards)	Growing Season	February through November
Fruit and Nut Crops (Orchards)	Harvest	May (cherries) through October (walnuts)
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	All year
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	May through August
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	February through July
Grains	Tillage	Fall or early spring
Grains	Field Prep and Planting	Fall or early spring
Grains	Nutrient Applications	Fall or early spring
Grains	Manure Applications (if any)	NA
Grains	Irrigation	November through May
Grains	Growing Season	October through June
Grains	Harvest	June
Grains	Pesticide Applications: Herbicides	November through May
Grains	Pesticide Applications: Insecticides	May
Grains	Pesticide Applications: Fungicide	April
Irrigated Pasture	Tillage	Fall or early spring
Irrigated Pasture	Field Prep and Planting	Fall or early spring
Irrigated Pasture	Nutrient Applications	Fall or early spring
Irrigated Pasture	Manure Applications (if any)	NA
Irrigated Pasture	Irrigation	March through October
Irrigated Pasture	Growing Season	March through October
Irrigated Pasture	Harvest	June through September
Irrigated Pasture	Pesticide Applications: Herbicides	Infrequent, April through May if any
Irrigated Pasture	Pesticide Applications: Insecticides	Rare; April through May if any
Irrigated Pasture	Pesticide Applications: Fungicide	N/A
Livestock	Livestock on ranches & pastures in drainage/subwatershed	April through October if any
Vegetable Crops (Field/Row Crops)	Tillage	Fall or early spring
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Fall or early spring
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Fall or early spring or summer
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Little, if any
Vegetable Crops (Field/Row Crops)	Irrigation	April through September
Vegetable Crops (Field/Row Crops)	Growing Season	April through November
Vegetable Crops (Field/Row Crops)	Harvest	April through November
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	April through September
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	April through September
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	April through July

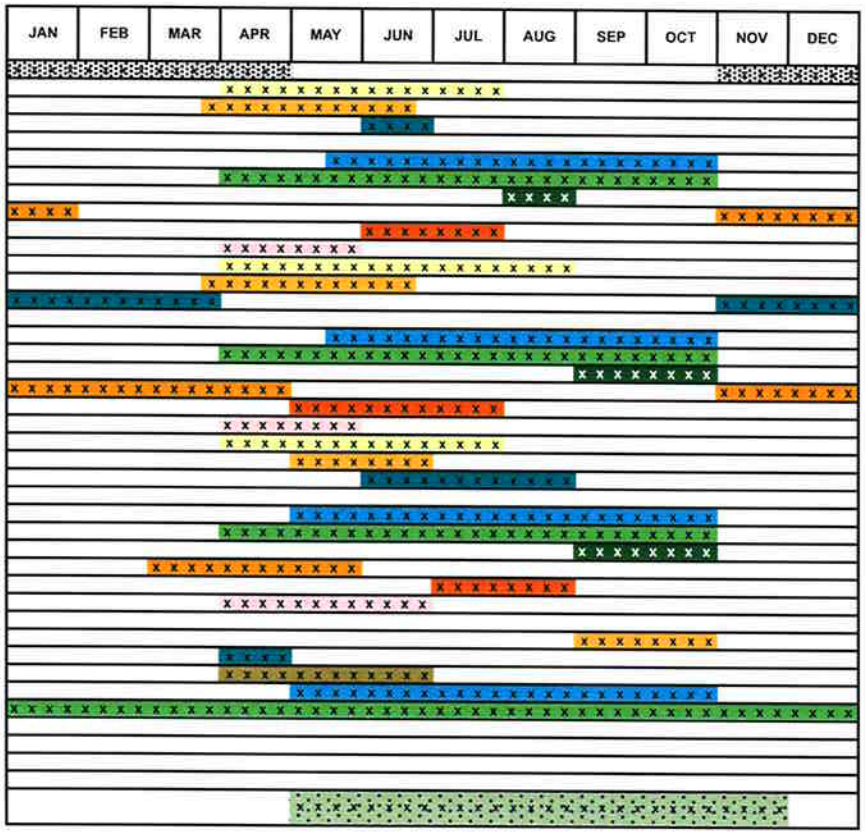


Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	Storm season November through May, runoff most likely from December through March after soils are saturated from rainfall and while most crops are dormant or not yet planted.
Alfalfa	Tillage	NA
Alfalfa	Field Prep and Planting	NA
Alfalfa	Nutrient Applications	NA
Alfalfa	Manure Applications (if any)	NA
Alfalfa	Irrigation	NA
Alfalfa	Growing Season	NA
Alfalfa	Harvest	NA
Alfalfa	Pesticide Applications: Herbicides	NA
Alfalfa	Pesticide Applications: Insecticides	NA
Alfalfa	Pesticide Applications: Fungicide	NA
Fruit and Nut Crops (Orchards)	Tillage	After the orchard is planted tillage may occur in between orchard rows while the trees are small. Once the trees are two or three years old tillage typically stops and is replaced with mowing, especially where drip and microsprinkler irrigation is used.
Fruit and Nut Crops (Orchards)	Field Prep and Planting	Preplant land preparation that typically involves deep ripping or slip plowing, disking, and land leveling occurs one time in the life of the orchard (every 35 to 40 years) and typically occurs in the summer and fall months. Planting typically occurs February - June.
Fruit and Nut Crops (Orchards)	Nutrient Applications	September - October
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	Manure applications are rare due to health concerns and also due to the lack of nearby confined animal operations for a source of manure.
Fruit and Nut Crops (Orchards)	Irrigation	May - October
Fruit and Nut Crops (Orchards)	Growing Season	March - November
Fruit and Nut Crops (Orchards)	Harvest	June - November
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	March - June
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	February - August
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	April - August
Grains	Tillage	NA
Grains	Field Prep and Planting	NA
Grains	Nutrient Applications	NA
Grains	Manure Applications (if any)	NA
Grains	Irrigation	NA
Grains	Growing Season	NA

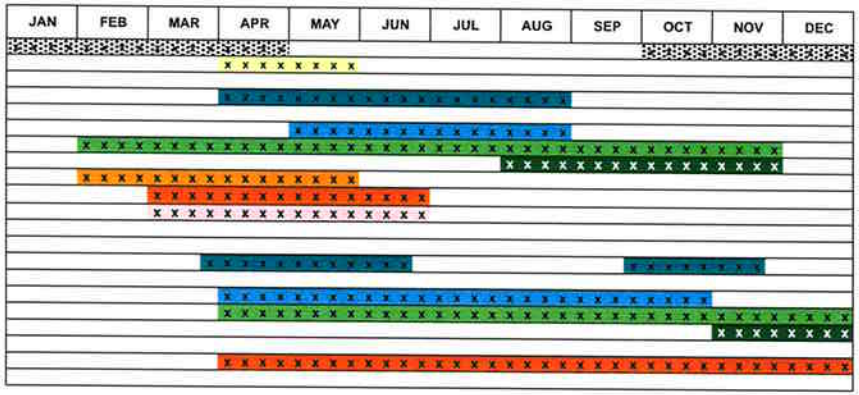
Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
Grains	Harvest	NA
Grains	Pesticide Applications: Herbicides	NA
Grains	Pesticide Applications: Insecticides	NA
Grains	Pesticide Applications: Fungicide	NA
Irrigated Pasture	Tillage	Foothill irrigated pastures are not replanted as done in the valley
Irrigated Pasture	Field Prep and Planting	Planting is recommended and more common in the fall months of September/October, but may also occur in the spring months of March/April.
Irrigated Pasture	Nutrient Applications	Foothill irrigated pastures do not typically receive fertilizer
Irrigated Pasture	Manure Applications (if any)	NA
Irrigated Pasture	Irrigation	Irrigation typically occurs from April through October.
Irrigated Pasture	Growing Season	The growing season is year-round in irrigated pastures. The pasture species composition will change with seasons.
Irrigated Pasture	Harvest	Continuous through livestock
Irrigated Pasture	Pesticide Applications: Herbicides	NA
Irrigated Pasture	Pesticide Applications: Insecticides	NA
Irrigated Pasture	Pesticide Applications: Fungicide	NA
Livestock	Livestock on ranches & pastures in drainage/subwatershed	Grazing is year round
Vegetable Crops (Field/Row Crops)	Tillage	There are no row crops grown in El Dorado County, except very limited strawberry plantings ranging in size from 1-2 acrea.
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Not applicable.
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Not applicable.
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Not applicable.
Vegetable Crops (Field/Row Crops)	Irrigation	Not applicable.
Vegetable Crops (Field/Row Crops)	Growing Season	Not applicable.
Vegetable Crops (Field/Row Crops)	Harvest	Not applicable.
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	Not applicable.
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	Not applicable.
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	Not applicable.
Grapes for Wine Making	Tillage	Very limited disking between vine rows.
Grapes for Wine Making	Nutrient Applications	September - October
Grapes for Wine Making	Manure Applications (if any)	NA
Grapes for Wine Making	Manure Applications (if any)	NA
Grapes for Wine Making	Irrigation	May - October
Grapes for Wine Making	Growing Season	March - November
Grapes for Wine Making	Harvest	Late August - November
Grapes for Wine Making	Pesticide Applications: Herbicides	March - June
Grapes for Wine Making	Pesticide Applications: Insecticides	N/A - rarely

Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
Grapes for Wine Making	Pesticide Applications: Fungicide	April - harvest

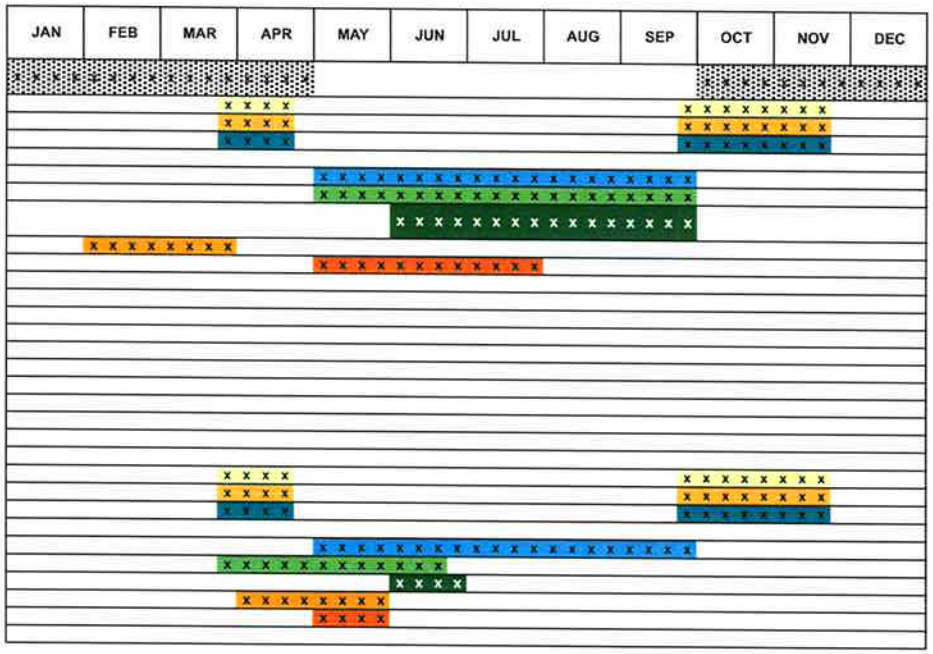
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	November - April
Pears	Tillage	April - July
Pears	Field Prep and Planting	Spring
Pears	Nutrient Applications	June
Pears	Manure Applications (if any)	NA
Pears	Irrigation	Mid May - October
Pears	Growing Season	April - Oct
Pears	Harvest	August
Pears	Pesticide Applications: Herbicides	November - January
Pears	Pesticide Applications: Insecticides	June - July
Pears	Pesticide Applications: Fungicide	April - May
Walnuts	Tillage	April - August
Walnuts	Field Prep and Planting	Spring
Walnuts	Nutrient Applications	November - March
Walnuts	Manure Applications (if any)	NA
Walnuts	Irrigation	Mid May - October
Walnuts	Growing Season	April - October
Walnuts	Harvest	September - October
Walnuts	Pesticide Applications: Herbicides	November - April
Walnuts	Pesticide Applications: Insecticides	May - July
Walnuts	Pesticide Applications: Fungicide	April - May
Grapes	Tillage	April - July
Grapes	Field Prep and Planting	May - June
Grapes	Nutrient Applications	June - August
Grapes	Manure Applications (if any)	NA
Grapes	Irrigation	May - October
Grapes	Growing Season	April - October
Grapes	Harvest	September - October
Grapes	Pesticide Applications: Herbicides	March - May
Grapes	Pesticide Applications: Insecticides	July - August
Grapes	Pesticide Applications: Fungicide	April - June
Irrigated Pasture	Tillage	None
Irrigated Pasture	Field Prep and Planting	September - October
Irrigated Pasture	Nutrient Applications	April
Irrigated Pasture	Manure Applications (if any)	April - June
Irrigated Pasture	Irrigation	May - October
Irrigated Pasture	Growing Season	Year Round
Irrigated Pasture	Harvest	Grazing only
Irrigated Pasture	Pesticide Applications: Herbicides	N/A
Irrigated Pasture	Pesticide Applications: Insecticides	N/A
Irrigated Pasture	Pesticide Applications: Fungicide	N/A
Livestock	Livestock on ranches & pastures in drainage/subwatershed	May - November



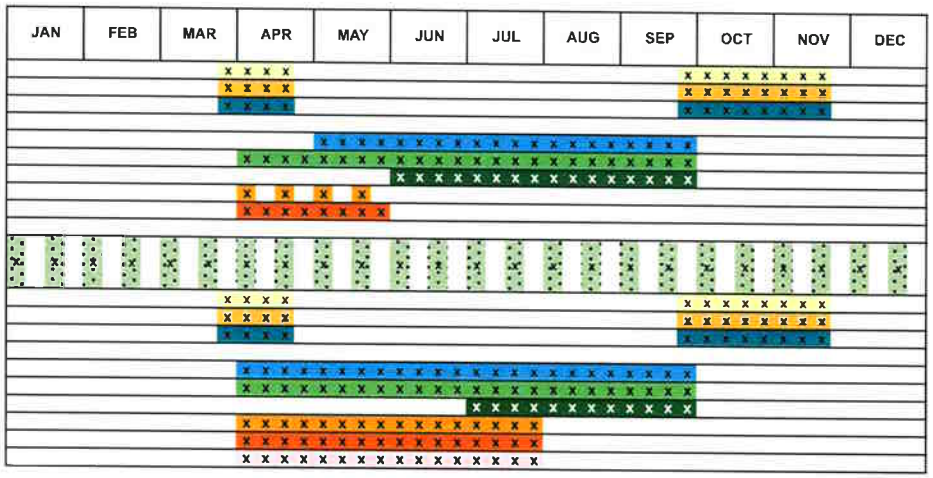
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	October through April
Fruit and Nut Crops -Wine Vyd	Tillage	April/ May, or NA if vineyard is no-till
Fruit and Nut Crops -Wine Vyd	Field Prep and Planting	NA
Fruit and Nut Crops -Wine Vyd	Nutrient Applications	April to August
Fruit and Nut Crops -Wine Vyd	Manure Applications (if any)	NA
Fruit and Nut Crops -Wine Vyd	Irrigation	May to August, Drip Irrig- if used/ as needed
Fruit and Nut Crops -Wine Vyd	Growing Season	February to November
Fruit and Nut Crops -Wine Vyd	Harvest	August to November
Fruit and Nut Crops -Wine Vyd	Pesticide Applications: Herbicides	February to May, if used/as needed
Fruit and Nut Crops -Wine Vyd	Pesticide Applications: Insecticides	March through June, if used/ as needed
Fruit and Nut Crops -Wine Vyd	Pesticide Applications: Fungicide	March through June, if used/ as needed
Fruit and Nut Crops - Olives	Tillage	NA; mow only
Fruit and Nut Crops - Olives	Field Prep and Planting	n/a
Fruit and Nut Crops - Olives	Nutrient Applications	spring & fall
Fruit and Nut Crops - Olives	Manure Applications (if any)	NA
Fruit and Nut Crops - Olives	Irrigation	April through Oct.
Fruit and Nut Crops - Olives	Growing Season	April through Dec
Fruit and Nut Crops - Olives	Harvest	November - December
Fruit and Nut Crops - Olives	Pesticide Applications: Herbicides	n/a
Fruit and Nut Crops - Olives	Pesticide Applications: Insecticides	Rare; April through Dec, if needed
Fruit and Nut Crops - Olives	Pesticide Applications: Fungicide	n/a



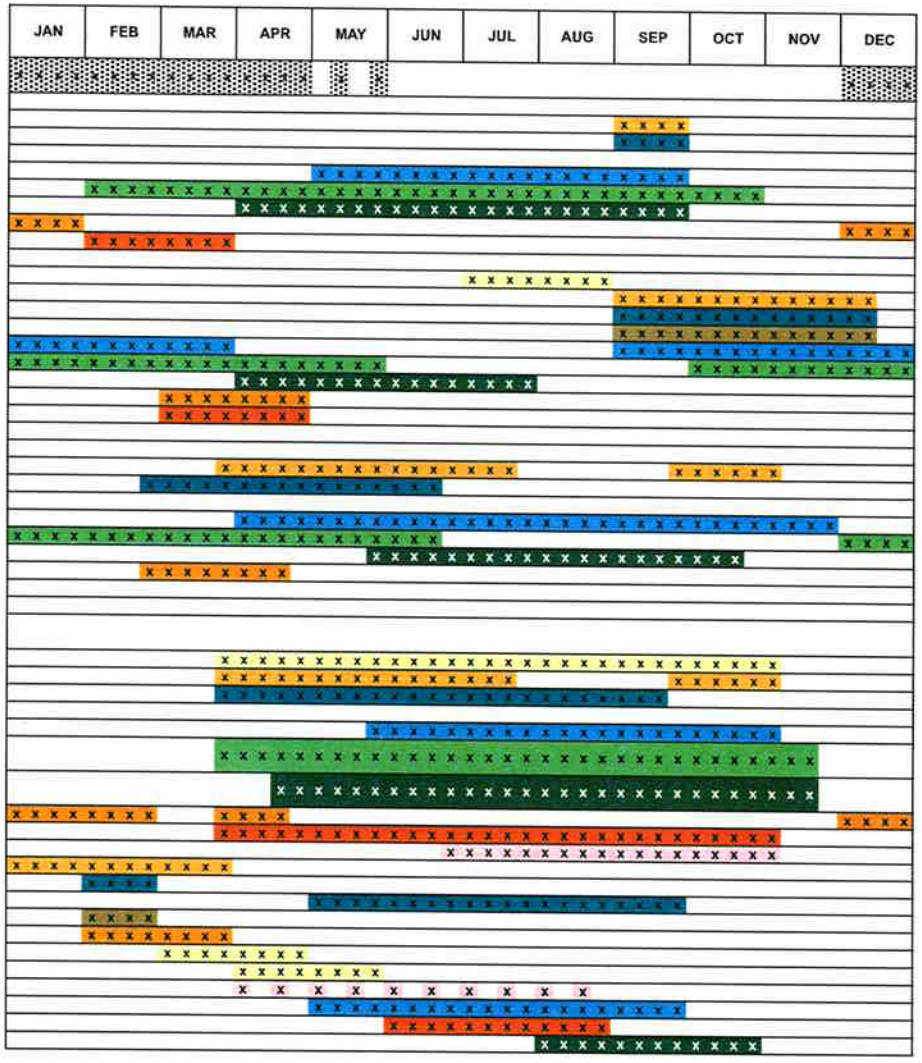
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
All Crops	Rain and Storm Runoff	October through April (can vary year to year)
Alfalfa	Tillage	Fall or early spring, every 5-10 years
Alfalfa	Field Prep and Planting	Fall or early spring, every 5-10 years
Alfalfa	Nutrient Applications	Fall or early spring
Alfalfa	Manure Applications (if any)	Little, if any
Alfalfa	Irrigation	May through September
Alfalfa	Growing Season	May through September
Alfalfa	Harvest	June through September (typically 3-4 cuttings)
Alfalfa	Pesticide Applications: Herbicides	February through March
Alfalfa	Pesticide Applications: Insecticides	May through July
Alfalfa	Pesticide Applications: Fungicide	NA
Fruit and Nut Crops (Orchards)	Tillage	NA
Fruit and Nut Crops (Orchards)	Field Prep and Planting	NA
Fruit and Nut Crops (Orchards)	Nutrient Applications	NA
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	NA
Fruit and Nut Crops (Orchards)	Irrigation	NA
Fruit and Nut Crops (Orchards)	Growing Season	NA
Fruit and Nut Crops (Orchards)	Harvest	NA
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	NA
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	NA
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	NA
Grains	Tillage	Fall or early spring
Grains	Field Prep and Planting	Fall or early spring
Grains	Nutrient Applications	Fall or early spring
Grains	Manure Applications (if any)	Little, if any
Grains	Irrigation	May through September
Grains	Growing Season	Spring
Grains	Harvest	June
Grains	Pesticide Applications: Herbicides	April-May
Grains	Pesticide Applications: Insecticides	None, typically. In May, if at all.
Grains	Pesticide Applications: Fungicide	Little, if any



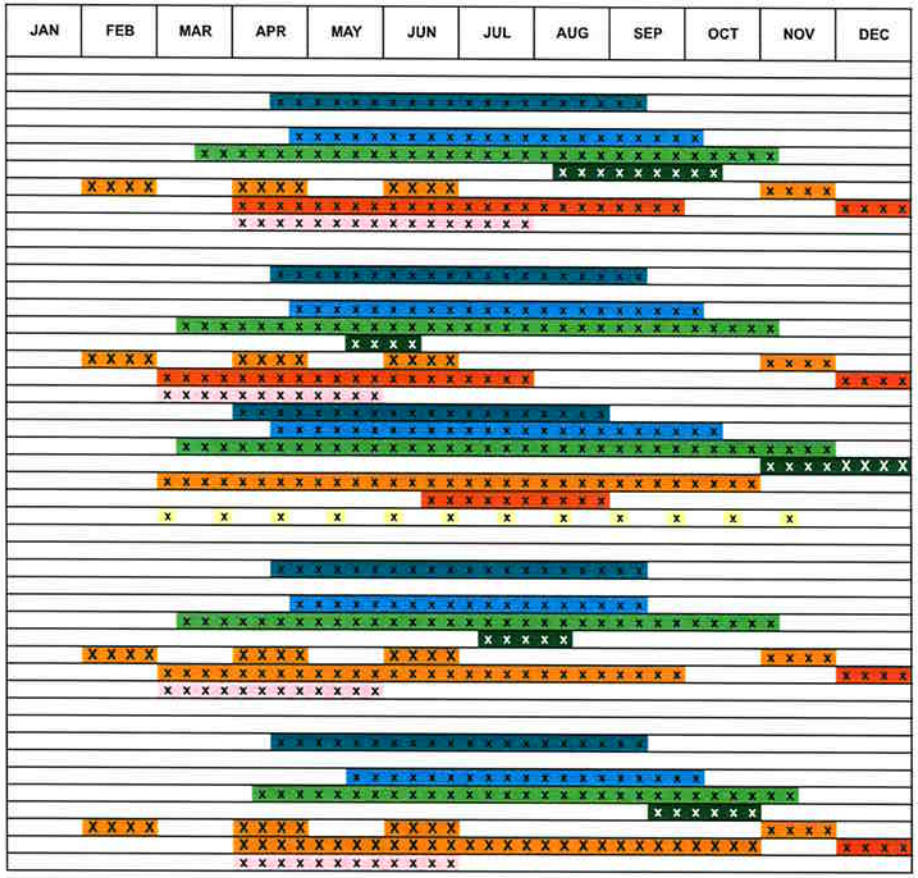
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
Irrigated Pasture	Tillage	Fall or early spring
Irrigated Pasture	Field Prep and Planting	Fall or early spring
Irrigated Pasture	Nutrient Applications	Fall or early spring
Irrigated Pasture	Manure Applications (if any)	Little, if any
Irrigated Pasture	Irrigation	May through September
Irrigated Pasture	Growing Season	April through September
Irrigated Pasture	Harvest	June-September
Irrigated Pasture	Pesticide Applications: Herbicides	Typically, none. April-May if any.
Irrigated Pasture	Pesticide Applications: Insecticides	None, typically. April-May if any.
Irrigated Pasture	Pesticide Applications: Fungicide	NA
Livestock	Livestock on ranches & pastures in drainage/subwatershed	Some winter cattle in the area, other summer pasture and winter in other areas. It is an individual situation.
Vegetable Crops (Field/Row Crops)	Tillage	Fall or early spring
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Fall or early spring
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Fall or early spring
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Little, if any
Vegetable Crops (Field/Row Crops)	Irrigation	April through September
Vegetable Crops (Field/Row Crops)	Growing Season	April through September
Vegetable Crops (Field/Row Crops)	Harvest	July through September
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	April through July
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	April through July
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	April through July



Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or If crop doesn't exist in region.
All Crops	Rain and Storm Runoff	Minly December through April, may extend into May; plus snowmelt in the Cosumnes
Alfalfa	Tillage	none
Alfalfa	Field Prep and Planting	September
Alfalfa	Nutrient Applications	September
Alfalfa	Manure Applications (if any)	NA
Alfalfa	Irrigation	May through September
Alfalfa	Growing Season	February through October
Alfalfa	Harvest	April through September
Alfalfa	Pesticide Applications: Herbicides	December-January
Alfalfa	Pesticide Applications: Insecticides	February through May
Alfalfa	Pesticide Applications: Fungicide	NA
Grains	Tillage	July through August
Grains	Field Prep and Planting	September – Mid December
Grains	Nutrient Applications	September – Mid December
Grains	Manure Applications (if any)	September – Mid December
Grains	Irrigation	Mostly dry farmed; Sep – March if irrigated
Grains	Growing Season	October through May
Grains	Harvest	April–May for hay; June-July for grain
Grains	Pesticide Applications: Herbicides	March-April
Grains	Pesticide Applications: Insecticides	March-April
Grains	Pesticide Applications: Fungicide	NA
Irrigated Pasture	Tillage	None
Irrigated Pasture	Field Prep and Planting	Spring, Early Summer, Fall
Irrigated Pasture	Nutrient Applications	Late Winter, Spring
Irrigated Pasture	Manure Applications (if any)	Late spring, summer
Irrigated Pasture	Irrigation	Depends on rain-could be year round
Irrigated Pasture	Growing Season	After 1st rain until late spring
Irrigated Pasture	Harvest	Late Spring, summer, early fall if making hay
Irrigated Pasture	Pesticide Applications: Herbicides	Late Winter-Early Spring
Irrigated Pasture	Pesticide Applications: Insecticides	Usually none
Irrigated Pasture	Pesticide Applications: Fungicide	None
Livestock	Livestock on ranches & pastures in drainage/subwatershed	?????
Vegetable Crops (Field/Row Crops)	Tillage	Spring, Early Summer, Fall
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Spring, Early Summer, Fall
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Spring, Summer
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Usually none
Vegetable Crops (Field/Row Crops)	Irrigation	Depends on rain--late spring till harvest
Vegetable Crops (Field/Row Crops)	Growing Season	Spring-Fall, small vegetable grower year round
Vegetable Crops (Field/Row Crops)	Harvest	Depends on the vegetable -small growers-year round
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	Early Spring, Winter Pre-plant
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	Spring, Summer, Fall
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	Summer, Fall
Wine Grapes	Pruning	January-March
Wine Grapes	Nutrient Application- Spreader	February
Wine Grapes	Nutrient Application-Drip	May-September
Wine Grapes	Manure Applications (if any)	February
Wine Grapes	Pesticide Applications: Herbicides	February-March (once per vineyard)
Wine Grapes	Tillage-Disking	March-April
Wine Grapes	Tillage-Mowing	April-May
Wine Grapes	Pesticide Applications: Fungicide	April-August (every 14 days)
Wine Grapes	Irrigation-Drip	May-September
Wine Grapes	Pesticide Application: Miticide	June-August (once per vineyard)
Wine Grapes	Harvest	August-October



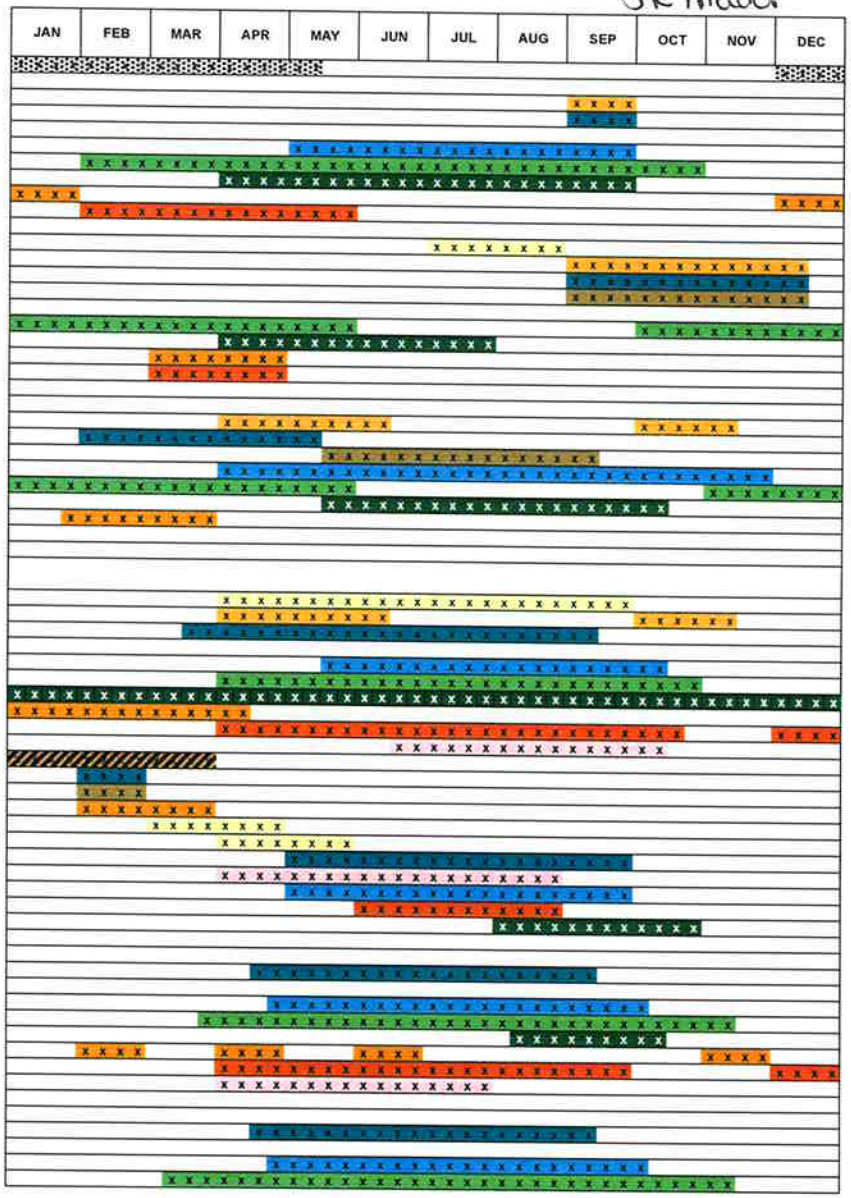
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in region.
Apples	Tillage	N/A
Apples	Field Prep and Planting	N/A
Apples	Nutrient Applications	Mid April through Mid-September
Apples	Manure Applications (if any)	N/A
Apples	Irrigation	Late April through Early October
Apples	Growing Season	Late March through Early November
Apples	Harvest	Early August through Mid-October
Apples	Pesticide Applications: Herbicides	November, February, April, June
Apples	Pesticide Applications: Insecticides	December, April through September
Apples	Pesticide Applications: Fungicide	April through July
Cherries	Tillage	N/A
Cherries	Field Prep and Planting	N/A
Cherries	Nutrient Applications	Mid April through Mid-September
Cherries	Manure Applications (if any)	N/A
Cherries	Irrigation	Late April through Early October
Cherries	Growing Season	Mid March through Early November
Cherries	Harvest	Mid May through Mid-June
Cherries	Pesticide Applications: Herbicides	November, February, April, June
Cherries	Pesticide Applications: Insecticides	December, March through July
Cherries	Pesticide Applications: Fungicide	March through May
Citrus	Nutrient Applications	April thru August (twice)
Citrus	Irrigation	mid April thru mid October
Citrus	Growing season	mid March thru November
Citrus	Harvest	November thru December
Citrus	Pesticide Applications: Herbicides	March thru October (three times)
Citrus	Pesticide Applications: Insecticides	mid June thru August (once)
Citrus	Cover crop mowing	March thru November (every 3 weeks)
Pears	Tillage	N/A
Pears	Field Prep and Planting	N/A
Pears	Nutrient Applications	Mid April through Mid-September
Pears	Manure Applications (if any)	N/A
Pears	Irrigation	Late April through Mid September
Pears	Growing Season	Mid March through Early November
Pears	Harvest	Early July through Mid-August
Pears	Pesticide Applications: Herbicides	November, February, April, June
Pears	Pesticide Applications: Insecticides	December, March through September
Pears	Pesticide Applications: Fungicide	March through May
Walnuts	Tillage	N/A
Walnuts	Field Prep and Planting	N/A
Walnuts	Nutrient Applications	Mid April through Mid-September
Walnuts	Manure Applications (if any)	N/A
Walnuts	Irrigation	Mid May through Early October
Walnuts	Growing Season	Early April through Early November
Walnuts	Harvest	Mid September through Late October
Walnuts	Pesticide Applications: Herbicides	November, February, April, June
Walnuts	Pesticide Applications: Insecticides	December, April through October
Walnuts	Pesticide Applications: Fungicide	April through June



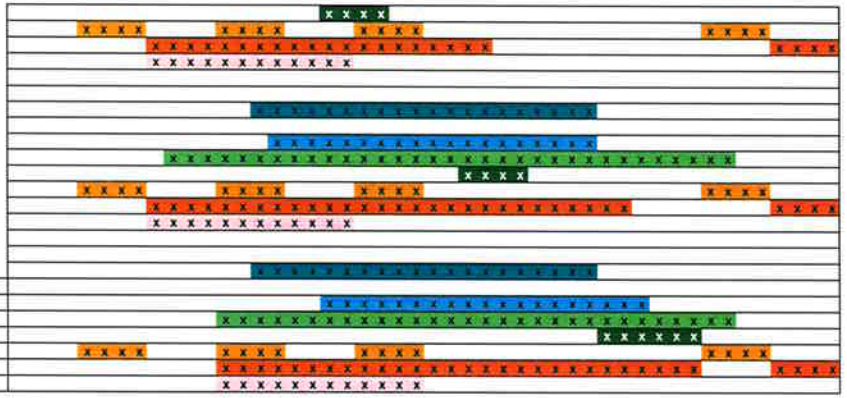
BUSSNS

SAC-Amador

Crop categories	Activity	Describe typical period(s) of activity. State "NA" if activity is not applicable for crop, or if crop doesn't exist in your region.
All Crops	Rain and Storm Runoff	December through May plus snowmelt in the Cosumnes
Alfalfa	Tillage	none
Alfalfa	Field Prep and Planting	September
Alfalfa	Nutrient Applications	September
Alfalfa	Manure Applications	N/A
Alfalfa	Irrigation	May through September
Alfalfa	Growing Season	February through October
Alfalfa	Harvest	April through September
Alfalfa	Pesticide Applications: Herbicides	December-January
Alfalfa	Pesticide Applications: Insecticides	February through May
Alfalfa	Pesticide Applications: Fungicide	N/A
Grains	Tillage	July through August
Grains	Field Prep and Planting	September through Mid December
Grains	Nutrient Applications	September through Mid December
Grains	Manure Applications	September through Mid December
Grains	Irrigation	Mostly dry farmed (September through March, if used)
Grains	Growing Season	October through May
Grains	Harvest	April-May for hay June-July for grain
Grains	Pesticide Applications: Herbicides	March-April
Grains	Pesticide Applications: Insecticides	March-April
Grains	Pesticide Applications: Fungicide	N/A
Irrigated Pasture	Tillage	None
Irrigated Pasture	Field Prep and Planting	Spring, Early Summer, Fall
Irrigated Pasture	Nutrient Applications	Late Winter, Spring
Irrigated Pasture	Manure Applications	Late spring, summer
Irrigated Pasture	Irrigation	Depends on rain-could be year round
Irrigated Pasture	Growing Season	After 1st rain until late spring
Irrigated Pasture	Harvest	Late Spring, summer, early fall if making hay
Irrigated Pasture	Pesticide Applications: Herbicides	Late Winter-Early Spring
Irrigated Pasture	Pesticide Applications: Insecticides	Usually none
Irrigated Pasture	Pesticide Applications: Fungicide	None
Livestock	Livestock on ranches & pastures in drainage/subwatershed	???????
Vegetable Crops (Field/Row Crops)	Tillage	Spring, Early Summer, Fall
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Spring, Early Summer, Fall
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Spring, Summer
Vegetable Crops (Field/Row Crops)	Manure Applications	Usually none
Vegetable Crops (Field/Row Crops)	Irrigation	Depends on rain--late spring till harvest
Vegetable Crops (Field/Row Crops)	Growing Season	Spring-Fall, small vegetable gorwer year round
Vegetable Crops (Field/Row Crops)	Harvest	Depends on the vegetable -small growers- year round
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	Early Spring, Winter Pre-plant
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	Spring, Summer, Fall
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	Summer, Fall
Wine Grapes	Pruning	January-March
Wine Grapes	Nutrient Application- Spreader	February
Wine Grapes	Manure Applications	February
Wine Grapes	Pesticide Applications: Herbicides	February-March (once per season)
Wine Grapes	Tillage-Disking	March-April
Wine Grapes	Tillage-Mowing	April-May
Wine Grapes	Nutrient Application-Drip	May-September
Wine Grapes	Pesticide Applications: Fungicide	April-August (every 14 days)
Wine Grapes	Irrigation-Drip	May-September
Wine Grapes	Pesticide Applications: Miticide	June-August (once per season)
Wine Grapes	Harvest	August-October
Apples	Tillage	N/A
Apples	Field Prep and Planting	N/A
Apples	Nutrient Applications	Mid April through Mid-September
Apples	Manure Applications	N/A
Apples	Irrigation	Late April through Early October
Apples	Growing Season	Late March through Early November
Apples	Harvest	Early August through Mid-October
Apples	Pesticide Applications: Herbicides	November, February, April, June
Apples	Pesticide Applications: Insecticides	December, April through September
Apples	Pesticide Applications: Fungicide	April through July
cherries	Tillage	N/A
cherries	Field Prep and Planting	N/A
cherries	Nutrient Applications	Mid April through Mid-September
cherries	Manure Applications	N/A
cherries	Irrigation	Late April through Early October
cherries	Growing Season	Mid March through Early November

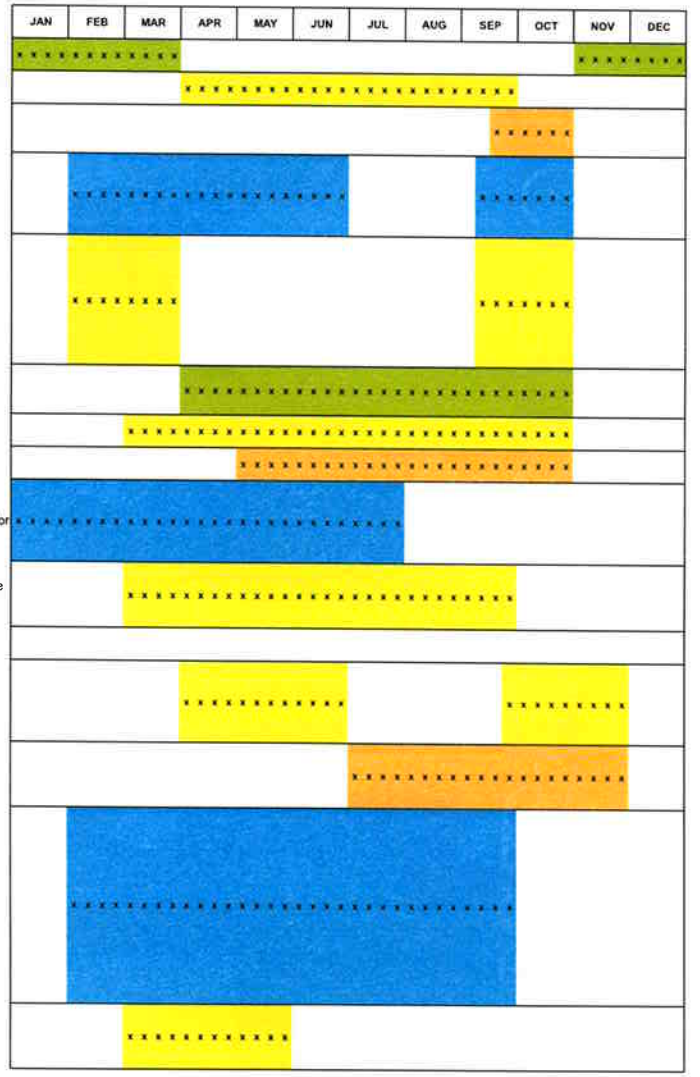


cherries	Harvest	Mid May through Mid-June
cherries	Pesticide Applications: Herbicides	November, February, April, June
cherries	Pesticide Applications: Insecticides	December, March through July
cherries	Pesticide Applications: Fungicide	March through May
Pears	Tillage	N/A
Pears	Field Prep and Planting	N/A
Pears	Nutrient Applications	Mid April through Mid-September
Pears	Manure Applications	N/A
Pears	Irrigation	Late April through Mid September
Pears	Growing Season	Mid March through Early November
Pears	Harvest	Early July through Mid-August
Pears	Pesticide Applications: Herbicides	November, February, April, June
Pears	Pesticide Applications: Insecticides	December, March through September
Pears	Pesticide Applications: Fungicide	March through May
Walnuts	Tillage	N/A
Walnuts	Field Prep and Planting	N/A
Walnuts	Nutrient Applications	Mid April through Mid-September
Walnuts	Manure Applications	N/A
Walnuts	Irrigation	Mid May through Early October
Walnuts	Growing Season	Early April through Early November
Walnuts	Harvest	Mid September through Late October
Walnuts	Pesticide Applications: Herbicides	November, February, April, June
Walnuts	Pesticide Applications: Insecticides	December, April through October
Walnuts	Pesticide Applications: Fungicide	April through June

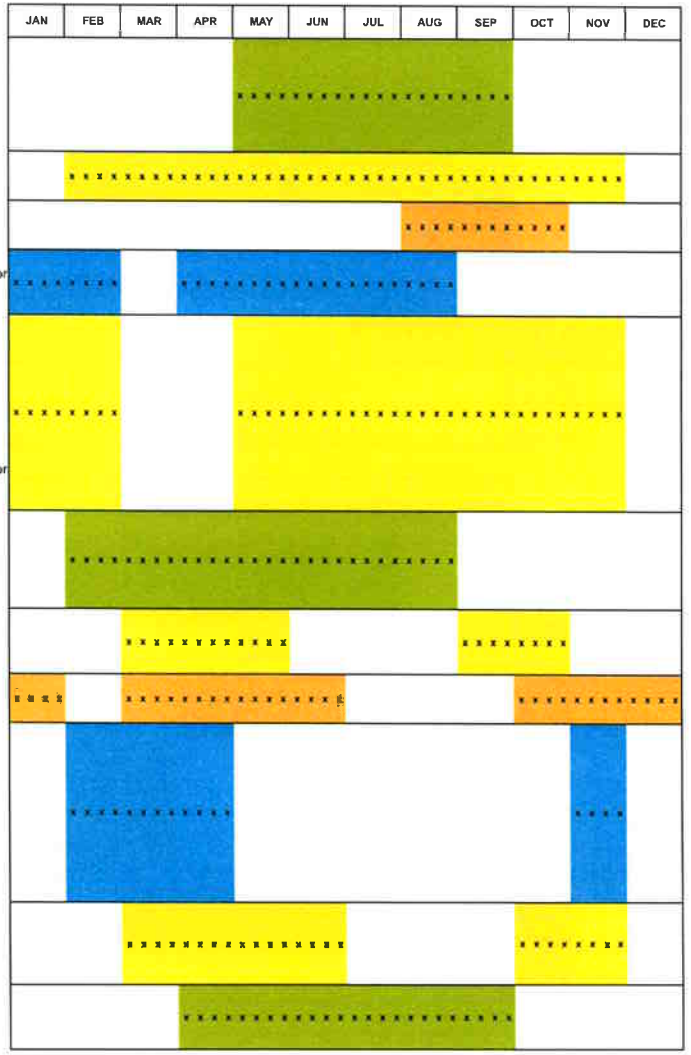


Shasta-Tehama

Crop categories	Activity	Describe typical period(s) of activity. State "NA" if activity is not applicable for crop, or if crop doesn't exist in your region.	Activity	Monitoring notes:
All Crops	Rain and Storm Runoff	Storm season November through May, runoff most likely from December through March after soils are saturated from rainfall and while most crops are dormant or not yet planted.	NOV-MAR	all parameters
Alfalfa	Tillage	Only preplant tillage. Expect tillage only when rotating into or out of alfalfa since alfalfa is a perennial crop with an economic life of 4 to 7 years.	SPRING, SUMMER [not annual]	TSS; metals; OC pesticides;
Alfalfa	Field Prep and Planting	Primarily late summer or early fall tillage to incorporate previous crop reside and in anticipation of planting possibly in later fall or the following spring. Some lighter spring tillage might precede a spring planting.	FALL	TSS; metals; OC pesticides;
Alfalfa	Nutrient Applications	Principally phosphorus fertilizer applications but possibly potassium and less likely nitrogen fertilizer applied just before seeding the crop. Most likely to occur in the months of February/March or September/October depending whether a fall or spring planting is anticipated. In established alfalfa fields fertilizers may be applied during the growing season in May or June or during the dormant season in November December.	FEB-JUN, SEP-DEC	nutrients
Alfalfa	Manure Applications (If any)	Manure applications are a possibility. If they were to occur they would be applied during the timeframe that preplant tillage is completed either in February/March or September/October. May become a more common practice in-lieu of higher fertilizer costs associated with higher petroleum costs. In the past manures have not been used as commonly with alfalfa because along with being a source of nutrients they are a source weed seeds and may lead to the use of more costly herbicides. Weeds in new alfalfa stands can diminish feed quality and tonnage. Manure applications are not common after the alfalfa crop is established.	FEB-MAR; SEP-OCT	nutrients; e. coli
Alfalfa	Irrigation	Irrigation typically occurs from April through October. Above normal rainfall years may delay the need for irrigation in April. Irrigation in the fall may be reduced in older alfalfa stands that are about to be tilled under.	APR-OCT	all parameters
Alfalfa	Growing Season	Typically plant semi-dormant or non-dormant varieties. The growing season typically begins about March 1 and ends around October 31.	MAR-OCT	
Alfalfa	Harvest	Typically harvest one cutting every 26 to 30 days beginning in late April or early May and ending in October.	MAY-OCT	
Alfalfa	Pesticide Applications: Herbicides	Pre-emergence herbicides may be applied to established alfalfa fields during the months of November through February. Post emergence herbicides may be applied between cuttings and irrigation from March through July. Post emergence herbicides may be applied to new plantings after germination in November/December or March/April depending upon if they are fall or spring plantings.	NOV-FEB; MAR-JUL; [see pesticide use data for details for specific pesticides]	herbicides;
Alfalfa	Pesticide Applications: Insecticides	Insecticides may be applied during the months of March through September. Principle economic pests include Egyptian Alfalfa Weevil in March and April and Armyworm and Alfalfa Catepillar in July through September. Only occasionally Blue Alfalfa Aphid and Alfalfa Pea Aphid are controlled with pesticides in May and June.	MAR-SEP; [see pesticide use data for details for specific pesticides]	organophophorus pesticides
Alfalfa	Pesticide Applications: Fungicide	Fungicides are not typically used in alfalfa hay production. Diseases are primarily managed by planting alfalfa varieties with disease resistance.	NA	
Fruit and Nut Crops (Orchards)	Tillage	After the orchard is planted tillage may occur in the orchard middles while the trees are small. Once the trees are two or three years old tillage typically stops and is replaced with mowing, especially where drip and microsprinkler irrigation is used. Some flood irrigated or subsurface drip irrigated orchards are tilled at least one time in the spring or summer each year but this is a less common practice.	SPRING, FALL [rare]	TSS; metals; OC pesticides;
Fruit and Nut Crops (Orchards)	Field Prep and Planting	Preplant land preparation that typically involves deep ripping or slip plowing, discing, and land leveling occurs one time in the life of the orchard (every 35 to 40 years) and typically occurs in the summer and fall months. Planting typically occurs in March through May depending on seasonal rains.	SUMMER-FALL [rare]	TSS; metals; OC pesticides;
Fruit and Nut Crops (Orchards)	Nutrient Applications	There is a wide range in when nutrient applications are applied in fruit and nut crops that is influenced by type of crop, type of nutrient deficiency, method of irrigation, and preferences for either foliar or land applied nutrient applications. The span of time ranges from February to December. To illustrate this range , nitrogen fertilizer applications in flood irrigated olives is typically applied in February and March whereas with drip irrigation they are applied in May-July, nitrogen applications in almond, walnut and peach are applied as split applications in March/April/May and in July/August/September. With prune nitrogen fertilization and foliar applications of potassium typically occurs in May/June/ July. Foliar applications of zinc may be applied to walnuts in April and applications to prune in October/November. Soil application of potassium is common in prune from October through December. Refer to individual crop calendars.	FEB-SEP	nutrients
Fruit and Nut Crops (Orchards)	Manure Applications (If any)	Rarely are manure applications applied due to concerns with food safety issues such as Salmonella and E. coli. If applied, poultry manure may be preferred due to higher nutrient content and more rapid decomposition and typically applied in March through May timeframe.	MAR-MAY [rare]	nutrients; e. coli

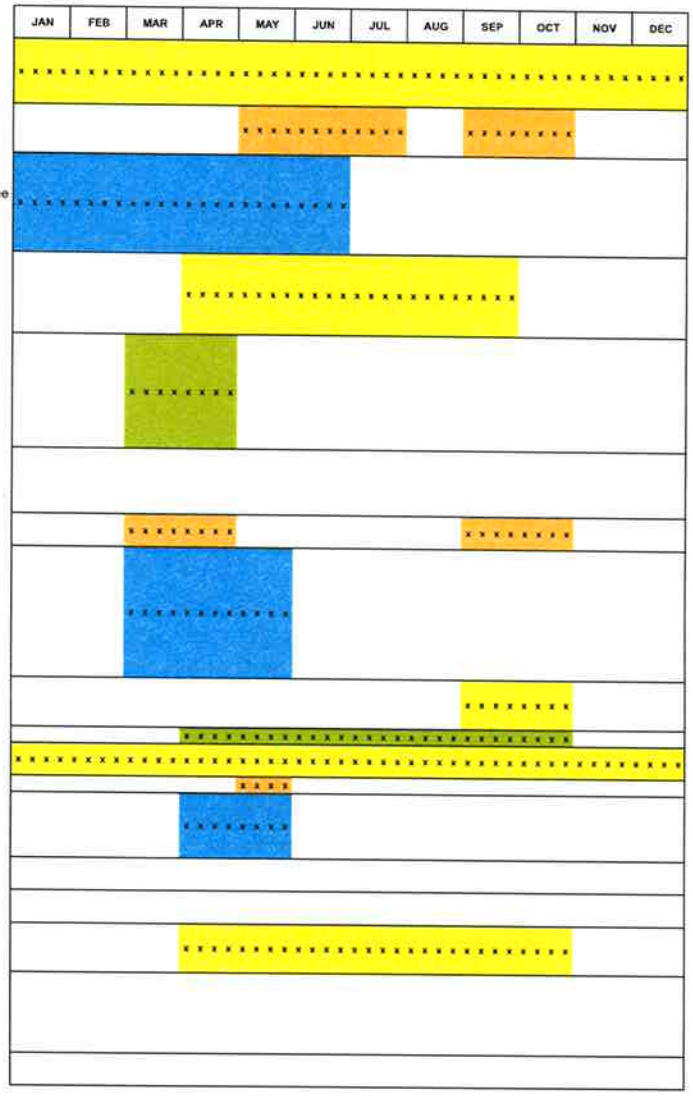


Crop categories	Activity	Describe typical period(s) of activity. State "NA" if activity is not applicable for crop, or if crop doesn't exist in your region.	Activity	Monitoring notes:
Fruit and Nut Crops (Orchards)	Irrigation	The primary months for irrigation to supplement typical winter and spring rainfall are May through September. The irrigation season can be expanded from February through November for frost and heat control during bloom periods and when spring and fall rainfall is insufficient. The irrigation season is typically longer for almond, intermediate for prune and peach, and shorter for walnut which reflects their respective bloom and leafout dates. Olive is not a deciduous crop like almond, prune, peach, and walnut and its irrigation season typically occurs from March through October.	feb-MAY-SEP-nov	all parameters
Fruit and Nut Crops (Orchards)	Growing Season	Almond - February 10 through November 15, prune and peach - March 10 through November 1, walnut April 1 - November 15, and olives are not deciduous so the growing season is year-round.	FEB-NOV	
Fruit and Nut Crops (Orchards)	Harvest	Almond - August through October depending upon variety, Peach July through September depending upon variety, Prune - principally a one variety commodity that is harvested in August and September, Walnut - September and October.	AUG-OCT	
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	Herbicides may be applied pre-emergence during November through February or post-emergence principally during the months of April through August. Post-emergence sprays in the tree row and mowing the middles during the months of April through August may be practiced without pre-emergence applications to reduce herbicide costs.	NOV-FEB; APR-AUG; [see pesticide use data for details for specific pesticides]	herbicides;
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	Both dormant and in-season insecticide applications are possibilities in almond, peach, and prunes. Dormant sprays are not used in walnut with only rare exceptions when a specific insect pest (San Jose Scale) is of concern. Early dormant sprays in later October and November are more commonly practiced in prunes. Late dormant sprays in almond during January or February are practiced. In-season insecticide application may occur primarily during the months of May through September depending upon the crop and variety. Typically less in-season sprays are needed if dormant season sprays are applied and vice-versa. Dormant season sprays are not necessarily applied every year and the intensity of in-season insecticide applications will vary with each season. Evidence of crop damage in previous crop quality grade sheets and real-time insect monitoring help guide mangement. In olive, insecticides are typically applied between June and November.	OCT-NOV; JAN-FEB; MAY-SEP; JUN-NOV; [see pesticide use data for details for specific pesticides]	organophophorus pesticides
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	The primary months for disease control and use of fungicides occur from February through August. February applications are commonly earliest in almonds for bloom and foliar disease control and fungicides may be used as late as May. Prune and peach are intermediate with applications beginning in mid March and may extend into June/July. Fungicides are commonlhy used in walnut from March through May. Fungicides may be used in olive in July/August and November/December for specific disease management.	FEB-AUG; [see pesticide use data for details for specific pesticides]	
Grains	Tillage	Preplant land preparation by chiselling, discing, harrowing and leveling typically occurs in September/October for winter grain production (wheat, barley, oats). Preplant land preparation typically occurs for summer grain crops such as field corn in March, April, or May.	SEP-OCT; MAR-MAY	TSS; metals; OC pesticides;
Grains	Field Prep and Planting	Planting of small grains typically occurs in November but can occur as early as October and as late as in January. Summer grain plantings typically occur in April or May but may occur as early as March or as late as June or early July.	MAR-JUN; OCT-JAN	TSS; metals; OC pesticides;
Grains	Nutrient Applications	For winter grains phosphorus fertilizers are typically applied preplant in about November. Nitrogen is applied in split applications. About one-half of the seasonal nitrogen need will be applied preplant when the land is prepared for planting in about November. Another 1/4 will commonly be applied between mid February and mid March during vegetative growth stages. The final 1/4 may typically be applied in April at pollination or during early stages of kernel development. For summer grains, nitrogen and phosphorus are the main nutrients of concern. Phosphorus it typically applied pre-plant in the spring months, if needed. Seasonal nitrogen fertilizer needs will typically be applied in split applications, about one-half as preplant March/April/May and the remainder during earlier vegetative stages of crop growth typically in May/June and possibly July depending upon planting date. Some growers use soil and plant tissue testing to guide the fertilizer management.	NOV; FEB-APRIL	nutrients
Grains	Manure Applications (if any)	Manure applications may be applied during preplant field preparation in October/November timeframe for winter grains or during the spring months of March, April, May, or possibly June for summer grain crops. If grain crops are grown in association with a dairy, dairy lagoon manure water applications may be applied during the irrigation season.	OCT-NOV; MAR-JUN;	nutrients; e. coli
Grains	Irrigation	The irrigation season for winter grain crops is dependent upon rainfall, but irrigations are common in April and May for winter grain crops. The principal irrigation season for summer grain crops is May through August and possibly September depending upon the planting date.	APR-SEP;	all parameters



Shasta-Tehama

Crop categories	Activity	Describe typical period(s) of activity. State "NA" if activity is not applicable for crop, or if crop doesn't exist in your region.	Activity	Monitoring notes
Grains	Growing Season	The winter grain growing season typically ranges from November through early May or June depending whether the crop is harvested for forage or grain. The summer grain growing season typically ranges from planting in April/May and the crop is grown through September/October depending whether the crop is harvested for forage or grain.	NOV-MAY; MAY-OCT	
Grains	Harvest	Winter grains are typically harvested in May through July depend whether it is harvested for forage or grain. Summer grains are harvested typically September/October depending whether it is for forage or grain.	MAY-JUL; SEP-OCT;	
Grains	Pesticide Applications: Herbicides	Post-emergence herbicides may be applied in winter grains primarily during February but may occur from sometime in January through March depending crop germination date and the species of weed controlled. Herbicides may be applied in summer grains as either pre-emergence or post emergence herbicides. The principle period of herbicide application is during the months of April through June depending on crop germination dates but occur during early stages of crop development.	JAN-MAR; APR-JUN [see pesticide use data for details for specific pesticides]	herbicides;
Grains	Pesticide Applications: Insecticides	Insecticides are used in small grains to a limited extent. In winter grains, the principle insect pest may be aphids in April and May but the need for insecticides is not common due to natural control. In summer grains, infrequent use of insecticides may be needed for soil borne insects such as cutworm. Summer insecticide application in summer grains are unusual but may be needed for aphid, armyworm, or earworm control.	APR-SEP [rare]; [see pesticide use data for details for specific pesticides]	organophophorus pesticides
Grains	Pesticide Applications: Fungicide	Historically, fungicides have not been used in winter grain production. Winter grain diseases are typically managed by planting varieties with disease resistance. However, in recent seasons small grains are increasing in value due to competing interests related to bio-fuel production and specific diseases (stripe rust) are not being controlled sufficiently with variety resistance. When conditions exist that merit fungicides they are typically applied in small grains during March/April. Fungicides are not typically applied in summer grain crops.	MAR-APR [rare]; [see pesticide use data for details for specific pesticides]	
Irrigated Pasture	Tillage	Preplant tillage consisting of discing, harrowing, roller-packing, and leveling typically occurs in later summer or fall during August, September, and October. Irrigated pastures consist of perennial grasses and legumes and the typical life span is 15 or more years so tillage is very infrequent.	NA [rare]	
Irrigated Pasture	Field Prep and Planting	Planting is recommended and more common in the fall months of September/October but may also occur in the spring months of March/April.	SEP-OCT; MAR-APR; [infrequent]	TSS; metals; OC pesticides;
Irrigated Pasture	Nutrient Applications	Nitrogen, phosphorus, and sulfur are the primary nutrients of concern in irrigated pasture. Fertilizers or possibly manure applications may be applied during preplant tillage operations. Once the pasture is established and if the pasture composition includes legumes nitrogen fertilizers are less likely to be applied. The principle nutrient deficiency of concern in irrigated pastures after they are established is phosphorus and to a lesser extent sulfur. If fertilizers are applied in established pastures applications will occur in March, April, or May. Some growers use soil and tissue testing to guide nutrient management.	MAR-MAY;	TSS; metals; OC pesticides; nutrients
Irrigated Pasture	Manure Applications (if any)	Imported applications of field manure are only likely to occur during preplant operations and are uncommon after the pastures are established. Manure from grazing livestock is a common source of nutrients in established pastures.	SEP-OCT [rare];	
Irrigated Pasture	Irrigation	Irrigation typically occurs from April through October.	APR-OCT	nutrients; e. coli
Irrigated Pasture	Growing Season	The growing season is year-round in irrigated pastures. The pasture species composition will change with seasons.	YEAR ROUND	all parameters
Irrigated Pasture	Harvest	A single cutting of hay is harvested from some irrigated pastures typically in May.	MAY	
Irrigated Pasture	Pesticide Applications: Herbicides	Herbicide applications in irrigated pasture are not a particularly widespread practice or a practice that will occur annually. If herbicides are used they will typically be applied in April and May. One of the more common practices is spot treatment to control blackberries.	APR-MAY [rare]; [see pesticide use data for details for specific pesticides]	herbicides;
Irrigated Pasture	Pesticide Applications: Insecticides	Not used in irrigated pasture.	NA	
Irrigated Pasture	Pesticide Applications: Fungicide	Not used in irrigated pasture.	NA	
Livestock	Livestock on ranches & pastures in drainage/subwatershed	The primary months of grazing irrigated pasture are April through October. There are variations to this grazing pattern depending whether other rangeland pasture is available to the operator to allow rotation of the livestock.	APR-OCT;	nutrients; e. coli;
Vegetable Crops (Field/Row Crops)	Tillage	Vegetable and row crops are a very minor part of the overall irrigated agriculture in Shasta and Tehama Counties and the crops that are grown tend to be specialized such as for nursery stock or for seed production. Suggest that practices described for these types of crops in other parts of the Sacramento Valley will be representative for Shasta and Tehama Counties.	NA [rare]	TSS; metals; OC pesticides;
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	Not applicable.	NA [rare]	



Crop categories	Activity	Describe typical period(s) of activity. State "NA" if activity is not applicable for crop, or if crop doesn't exist in your region.	Activity
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Irrigation	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Growing Season	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Harvest	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	Not applicable.	NA [rare]
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	Not applicable.	NA [rare]

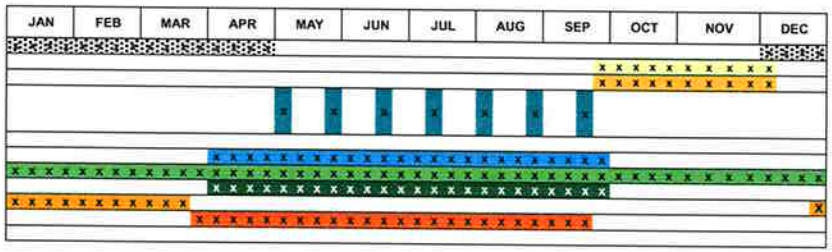
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

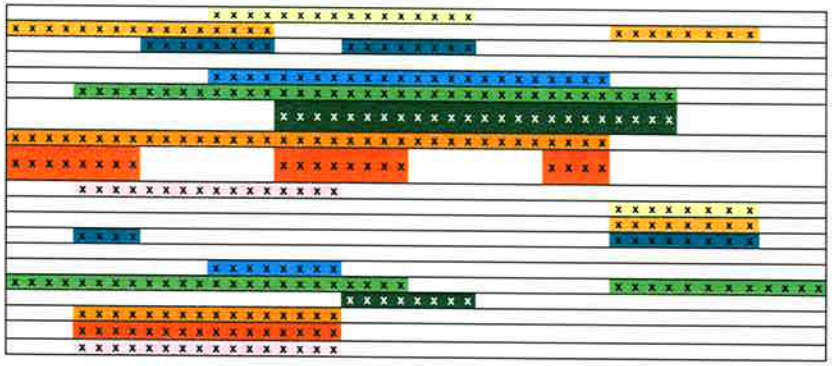
Monitoring notes:

nutrients; e. coli

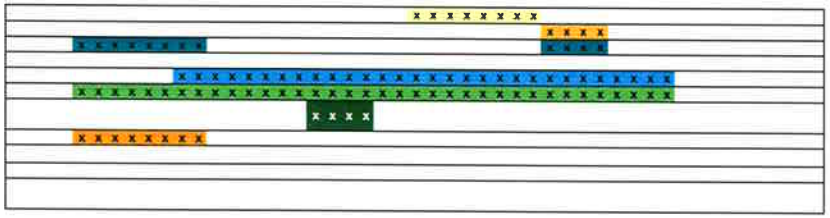
Solano/Yolo

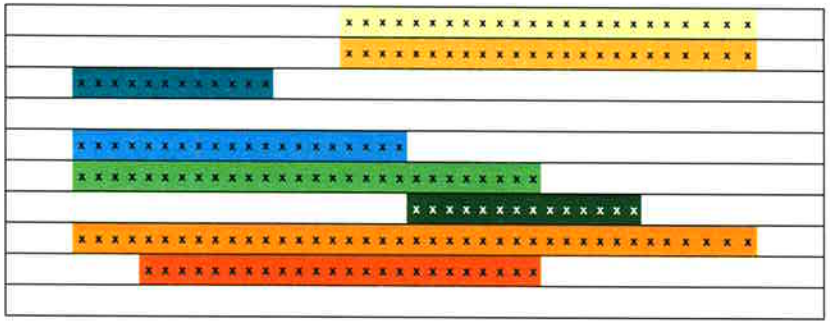
Crop categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in the region.
All Crops	**Rain and Storm Runoff**	December - April, generally
Alfalfa	Tillage	usually in the fall
Alfalfa	Field Prep and Planting	usually in the fall, but some plant in the spring
Alfalfa	Nutrient Applications	usually at seeding, typically after the first cutting. Doesn't get fertilizer every year. Soil test - sometimes 3 years before fertilizer is applied
Alfalfa	Manure Applications (if any)	none
Alfalfa	Irrigation	every 30 days after the first cutting - April - Sept
Alfalfa	Growing Season	annual
Alfalfa	Harvest	April - October, 30 day schedule
Alfalfa	Pesticide Applications: Herbicides	typically winter, after a first hard frost over winter
Alfalfa	Pesticide Applications: Insecticides	spring weavels, summer for army worm or worms
Alfalfa	Pesticide Applications: Fungicide	N/A, rarely used on this crop
Comments	Suspension of roundup-ready alfalfa has resulted in the higher use of other chemicals that are harsher on the soil, or longer lived. Until the stay on roundup-ready alfalfa is lifted, growers will continue to use harsher soil sterilants. Alfalfa plants that are genetically modified allow growers to use only roundup which has been proven to be very benign and has a shorter life in the soil.	
Fruit and Nut Crops (Orchards)	Tillage	mostly non cultivated, but if needed April - July
Fruit and Nut Crops (Orchards)	Field Prep and Planting	prep Oct - November, planting Jan - April
Fruit and Nut Crops (Orchards)	Nutrient Applications	Mar - April and late June - July (soil)
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	none
Fruit and Nut Crops (Orchards)	Irrigation	April - September
Fruit and Nut Crops (Orchards)	Growing Season	? February - October
Fruit and Nut Crops (Orchards)	Harvest	depends on crop - cherries - May, Apnlcots May June, Peaches, July August, Walnuts October
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	Jan - September, as needed
Fruit and Nut Crops (Orchards)	Pesticide Applications: Insecticides	Dormant - Jan - Feb/ Codling moth, May - June/ Twig Borer, May - June/ Husk Fly (walnuts) July - September
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	Feb - May, depends on rais during the flowering season
Grains [barley, oats, fall grains]	Tillage	October - November
Grains	Field Prep and Planting	October - November
Grains	Nutrient Applications	October, November, February
Grains	Manure Applications (if any)	n/a
Grains	Irrigation	April May
Grains	Growing Season	October - June
Grains	Harvest	June - July
Grains	Pesticide Applications: Herbicides	February - May, depending on need
Grains	Pesticide Applications: Insecticides	February - May, depending on need
Grains	Pesticide Applications: Fungicide	February - May, dependig on need



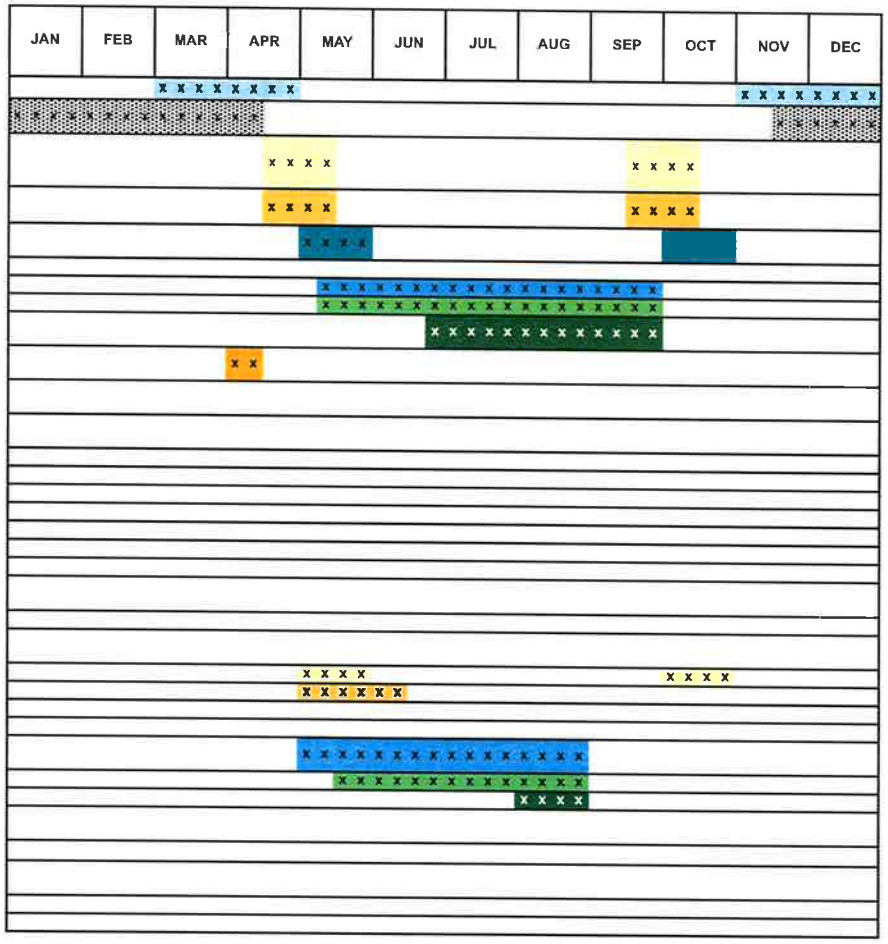


Irrigated Pasture	Tillage	July - Aug. Includes levelling if needed
Irrigated Pasture	Field Prep and Planting	September with 1 - 2 irrigations
Irrigated Pasture	Nutrient Applications	September for new plantings; Feb - March. For normal fertilizing.
Irrigated Pasture	Manure Applications (if any)	naturally manure applied (no additional applications)
Irrigated Pasture	Irrigation	depends on rainfall, usually March - October, about every 20 days
Irrigated Pasture	Growing Season	Feb through Oct, depending on rainfall & temperature
Irrigated Pasture	Harvest	usually cut once for hay in late spring and then grazed until November
Irrigated Pasture	Pesticide Applications: Herbicides	if needed, usually sprayed in Feb - March with 2,4-D or Butyrac
Irrigated Pasture	Pesticide Applications: Insecticides	n/a
Irrigated Pasture	Pesticide Applications: Fungicide	n/a
Livestock	Livestock on ranches & pastures in drainage/subwatershed	?????
Comments	Irrigated pasture is not planted annually. It is a semi-permanent perennial crop comprised of grasses, clovers and trefoils. Generally pastures perform best if they are fall seeded, much like alfalfa, but they can be planted in the spring. Perennial grasses act as a sediment filtration strip.	
Vegetable Crops (Field/Row Crops)	Tillage	prepping ground - anytime after previous crop is harvested... June - November
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	prepping ground - anytime after previous crop is harvested...June - November
Vegetable Crops (Field/Row Crops)	Nutrient Applications	Can be one at planting, or during early growing season
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	n/a
Vegetable Crops (Field/Row Crops)	Irrigation	depends on weather and rainfall, and if using drip irigation. Feb - June
Vegetable Crops (Field/Row Crops)	Growing Season	Typically February to August (can extend to Jan and Sep)
Vegetable Crops (Field/Row Crops)	Harvest	July - September or October
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	can be done before planting to get rid of weeds, and during growing season
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	Generally MAR - AUG [depends on crop, only as needed]
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	Generally ___ - ___ [depends on crop, only as needed]
Comments		This informationis general, and varies by specific crop.
Other	**This very general information does NOT cover all crops equally. Everything depends on the grower, the crop, the weather, the variety planted, etc.**	





Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in Subwatershed	Primary Monitoring Relevance
All Crops	Rain and Storm Runoff	Mar-Apr, and Nov-Dec, typically.	all parameters
All Crops	Snow	Mid-Nov - Apr, typically; Overlaps with rain and runoff season	Informational
Alfalfa	Tillage	Aug-Sept - not done annually, replant of poor fields every 6-8 years; rising costs decrease frequency	TSS; metals; OC pesticides;
Alfalfa	Field Prep and Planting	same as above	TSS; metals; OC pesticides;
Alfalfa	Nutrient Applications	Spring or fall (May or Oct); Varies by farm	nutrients: DO and pH
Alfalfa	Manure Applications (if any)	N/A	nutrients: e. coli
Alfalfa	Irrigation	May - Sept	all parameters
Alfalfa	Growing Season	May - Sept	Informational
Alfalfa	Harvest	1st late June, 2nd August, 3rd in Sept/Oct	Informational
Alfalfa	Pesticide Applications: Herbicides	April 1st-April 15th	Toxicity; Pesticides
Alfalfa	Pesticide Applications: Insecticides	Rare; Generally not applied unless ind. farm has problem in a given year	Toxicity; Pesticides
Alfalfa	Pesticide Applications: Fungicide	Rare; Generally not applied unless ind. farm has problem in a given year	toxicity; pesticides
Fruit and Nut Crops (Orchards)	Tillage	N/A	metals; OC pesticides
Fruit and Nut Crops (Orchards)	Field Prep and Planting	N/A	metals; OC pesticides
Fruit and Nut Crops (Orchards)	Nutrient Applications	N/A	nutrients: DO and pH
Fruit and Nut Crops (Orchards)	Manure Applications (if any)	N/A	nutrients: e. coli
Fruit and Nut Crops (Orchards)	Irrigation	N/A	all parameters
Fruit and Nut Crops (Orchards)	Growing Season	N/A	Informational
Fruit and Nut Crops (Orchards)	Harvest	N/A	Informational
Fruit and Nut Crops (Orchards)	Pesticide Applications: Herbicides	N/A	Toxicity; Pesticides
Fruit and Nut Crops (Orchards)	Pesticide Applications:	N/A	Toxicity; Pesticides
Fruit and Nut Crops (Orchards)	Pesticide Applications: Fungicide	N/A	toxicity; pesticides
Oat/Wheat Hay	Tillage	late fall (Oct) or early spring (May)	metals; OC pesticides
Oat/Wheat Hay	Field Prep and Planting	N/A	metals; OC pesticides
Oat/Wheat Hay	Nutrient Applications	N/A	nutrients: DO and pH
Oat/Wheat Hay	Manure Applications (if any)	N/A	nutrients: e. coli
Oat/Wheat Hay	Irrigation	May-August for alfalfa replant rotation crops; NA for dryland farms	all parameters
Oat/Wheat Hay	Growing Season	N/A	Informational
Oat/Wheat Hay	Harvest	August	Informational
Oat/Wheat Hay	Pesticide Applications: Herbicides	N/A	Toxicity; Pesticides
Oat/Wheat Hay	Pesticide Applications:	N/A	Toxicity; Pesticides
Oat/Wheat Hay	Pesticide Applications: Fungicide	N/A	toxicity; pesticides
Irrigated Pasture	Tillage	N/A	metals; OC pesticides
Irrigated Pasture	Field Prep and Planting	N/A	metals; OC pesticides



Crop Categories	Activity	Typical period(s) of activity. "NA" if activity is not applicable for crop, or if crop doesn't exist in Subwatershed	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Primary Monitoring Relevance
Irrigated Pasture	Nutrient Applications	APR/MAY; rarely done due to extremely low cost return				x x x x	x x x x								nutrients: DO and pH
Irrigated Pasture	Manure Applications (if any)	N/A													nutrients: e. coli
Irrigated Pasture	Irrigation	April - Sept				x x x x	x x x x	x x x x	x x x x	x x x x	x x x x	x x x x			all parameters
Irrigated Pasture	Growing Season	April - Sept													Informational
Irrigated Pasture	Harvest	Meadow hay cutting in July/Aug; Grazing occurs from April - Oct							x x x x	x x x x	x x x x				Informational
Irrigated Pasture	Pesticide Applications: Herbicides	N/A													Toxicity; Pesticides
Irrigated Pasture	Pesticide Applications:	N/A													Toxicity; Pesticides
Irrigated Pasture	Pesticide Applications: Fungicide	N/A													toxicity; pesticides
Livestock	Livestock on ranches & pastures in monitored drainages	mid April - mid Nov				x x x x	x x x x	x x x x	x x x x	x x x x	x x x x	x x x x	x x x x		e. coli
Vegetable Crops (Field/Row Crops)	Tillage	N/A													metals; OC pesticides
Vegetable Crops (Field/Row Crops)	Field Prep and Planting	N/A													metals; OC pesticides
Vegetable Crops (Field/Row Crops)	Nutrient Applications	N/A													nutrients: DO and pH
Vegetable Crops (Field/Row Crops)	Manure Applications (if any)	N/A													nutrients: e. coli
Vegetable Crops (Field/Row Crops)	Irrigation	N/A													all parameters
Vegetable Crops (Field/Row Crops)	Growing Season	N/A													Informational
Vegetable Crops (Field/Row Crops)	Harvest	N/A													Informational
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Herbicides	N/A													Toxicity; Pesticides
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Insecticides	N/A													Toxicity; Pesticides
Vegetable Crops (Field/Row Crops)	Pesticide Applications: Fungicide	N/A													toxicity; pesticides