

Program Updates 2017

Sustainability in Practice (SIP) Certified



Document Includes

The SIP Certified program is a “living document” – as science, technology, and research developments become available, the Standards evolve with the expertise of Technical Advisory Committees and external peer review of the entire program every five years.

- Changes made to the 2016 Information Package which apply to 2017 Information Package.
- Changes made to the 2016 Standards which apply to 2017 Standards.

Certification Year and Inspection Schedule

The 2017 SIP Certified for vineyards and wineries cycle runs from December 1, 2016 through November 30, 2017. All documentation needs to be present in time for inspections between June 1 and July 15, 2017.

How to Use the Update Package

Under the Update column you will find the following information:

- Words in **bold** show changes made to the 2016 Information Package and Standards that apply to the current 2017 Information Package and Standards.
- NEW = New SIP rule or Standard practice. If the change is a new Standard it should be documented for applicants in all Cycles (1, 2 and 3).
- Edit = Any change including content, verbiage, and punctuation.
- Moved = Existing question moved to another section or chapter.
- Delete = A question that was removed.

Documentation Process

Documentation should reflect practices from December 1, 2016 up until the inspection unless otherwise specified in the question. All applicants should review and update as needed questions marked as New and Edit.

Vineyards enter all Standards documentation in the online database at <https://app.sipcertified.org>. For vineyards, applicants in Cycle 2 or 3 should document Standards marked D or D+O based on the inspection type as shown in the database. If you are in Cycle 2 or 3 with a Documentation inspection and have not received a Documentation and Onsite OR Impromptu inspection in the past 6 years, you are eligible for an Impromptu inspection and should document Standards marked D and D+O. Vineyards in Cycle 1 should review and update the Standards in their entirety.

Wineries update Standards in their binder. For wineries, applicants in Cycle 2 or 3 should document Standards marked D or D+O based on their inspection type.

Other Documents

The complete 2017 Information Package and Standards can be found online at www.sipcertified.org by going to Get Certified → Documents and for vineyards in the online database at <https://app.sipcertified.org>.

Feel free to contact me with any questions.

Sincerely,

Beth Vukmanic Lopez, Certification Manager
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Information Package

Technical Advisory Committees (TAC)

Update	Section	Information Package
Edit	TAC	<p>Current Winery TAC Members</p> <ul style="list-style-type: none"> • Melissa Duggan, Treasury Wine Estates • Amy Freeman, Brave New Wine • Ian Herdman, Phase 2 Cellars • Ben Mayo, San Antonio Winery • Dave Sartain, Paso Robles Wine Services

Certification Advisory Committee

Update	Section	Information Package
Edit	CAC	<p>Current CAC Members</p> <ul style="list-style-type: none"> • Hunter Francis, California Polytechnic State University, San Luis Obispo • Julian Malone, Vineyard Manager, Coastal Vineyard Care • Brenda Ouwkerk, San Luis Obispo Department of Agriculture • Steve Saiz, Regional Water Quality Control Board • Jill Whitacre, Independent

Certified Properties: Vineyard and Winery

Update	Section	Information Package
NEW	Inspection	<p>Adding New Vineyards/Increasing Winery Capacity</p> <p>For vineyards, acres added to certification that are contiguous to existing certified acres and greater than 20% of the currently certified acres, require a Cycle 1 full inspection.</p> <p>For wineries, facilities that increase by 50% or more of the currently certified capacity (measured in total gallon capacity of tanks and barrels) require a Cycle 1 full inspection.</p>

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

SIP Certified Vineyard Standards

1 Conservation & Enhancement of Biological Diversity

Question	Update	Type	Standard
1.1.1	Edit	Req	<p>You must have and update at least every five years a conservation plan based on the type(s) of habitat affected by new vineyard development and/or ongoing vineyard operations. A Natural Resource Conservation Service Conservation Plan or equivalent qualifies.</p> <p>Equivalent plans will address the following sections:</p> <ul style="list-style-type: none"> • Whole farm system environments/habitats <ul style="list-style-type: none"> ○ Streams and/or waterbodies ○ Wildlife areas ○ Wetland areas ○ Forest/woodland areas • Whole farm system species <ul style="list-style-type: none"> ○ Animals, fish and wildlife ○ Rare or endangered plant and animal species ○ Noxious or invasive plants • Whole farm system components <ul style="list-style-type: none"> ○ Cover crops, filter strips, and vegetated buffers ○ Snag and cavity trees ○ Hedgerows and windbreak shelter trees ○ Erosion potential and management plan <p>Attach conservation plan including identification of habitat areas on your ranch map and document below what sensitive species, if any, exist in your area.</p>
1.1.4	Edit	ME	<p>What percent of the property is maintained as non-vineyard habitat i.e. native and naturalized grasses, flowering plants, shrubs and trees in corners, edges and corridors)?</p> <p style="margin-left: 40px;"> <input type="checkbox"/> >30% <input type="checkbox"/> 6 <input type="checkbox"/> 20-29% <input type="checkbox"/> 4 <input type="checkbox"/> 10-19% <input type="checkbox"/> 2 <input type="checkbox"/> < 10% <input type="checkbox"/> 0 </p> <p>Attach ranch map marked with percent of property maintained in non-vineyard habitat.</p> <p>From the onset of your involvement with the vineyard, were existing oak habitat, riparian areas, wetlands, and other natural habitats conserved or restored when developing your vineyard site?</p> <p>If yes, list conserved or improved areas and document conserved or restored areas on the ranch map.</p>
1.1.7	D+O	ME	<p>Do you have bat boxes as a means of insect pest control and/or raptor perches or owl boxes as a means of vertebrate pest control?</p> <p style="margin-left: 40px;"> <input type="checkbox"/> YES: 5 <input type="checkbox"/> NO: 0 </p> <p>Provide photo documentation of bat box, owl box, and/or raptor perch.</p>

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

2 Vineyard Acquisition, Establishment & Management

Question	Update	Type	Standard
2.5.1	D	Req	You must provide tissue samples from within the last year. Attach analysis results from within the last year.
2.6.1	D	Req	You must base <i>nutrient</i> applications on the vineyard's nutrient application plan. Attach nitrogen or other nutrient budget. Provide a written description of how your nutrient applications correlate with your nutrient budget.
2.6.2	D	Req	You must annually add organic matter to the soil, such as compost, manure, municipal green waste, green manure from your cover crop, and/or mulch. Organic matter must be managed in such a way to prevent the introduction of unwanted pests, pathogens, and weed species as well as to prevent nutrient leaching. Attach organic matter application records. Provide written description of management practices that prevent the introduction of unwanted pests, pathogens, and weed species as well as prevent nutrient leaching.

3 Soil Conservation & Water Quality

Question	Update	Type	Standard
3.1.9	D+O	ME	Do you store liquid materials separately from dry materials, and are dry materials elevated above the spill zone? <input type="checkbox"/> YES: 2 <input type="checkbox"/> NO: 0 If yes, provide photo documentation.
3.1.10	D+O	ME	Is mixing and loading performed on sites with low runoff hazard? <input type="checkbox"/> YES: 2 <input type="checkbox"/> NO: 0 If yes, explain.
3.2.2	D	Req	A winter cover crop (resident or planted) must be maintained. Provide close-up photo and large scale photo from a block level. Describe winter cover cropping practices.
3.2.5	Delete	ME	Did you develop an erosion plan to prevent the offsite movement of soil? <input type="checkbox"/> YES: 3 <input type="checkbox"/> NO: 0 If yes, provide written description of erosion plan and indicate any erosion prone locations on your ranch map.

4 Water Conservation

Question	Update	Type	Standard
4.1.2	Edit	Req	DPR Wellhead Protection Requirements (PDF)
4.2.4	Edit	ME	Do you inspect flush the irrigation lines at least twice throughout the irrigation season and flush lines as needed ? <input type="checkbox"/> YES: 3 <input type="checkbox"/> NO: 0 If yes, attach records of irrigation line inspections flushes .
4.2.6	NEW	ME	Do you use late pruning to delay bud break to reduce frost risk? <input type="checkbox"/> YES: 3 <input type="checkbox"/> NO: 0 If yes, describe.

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

Question	Update	Type	Standard
4.2.7 (was 4.2.6)	Edit	ME	<p>Do you use wind machines or a low-volume (less than or equal to 30 gallons/acre/minute) watering system used for frost protection? If yes, provide documentation a written description of low-volume watering system used for frost control.</p> <p><input type="checkbox"/> YES: 3 <input type="checkbox"/> NO: 0</p> <p>Not Applicable only if no water is used for frost control is not used. Provide written statement.</p>
4.2.8	Delete	ME	<p>If chemical maintenance of your irrigation system is used to prevent plugging, do you have documentation to justify use? If yes, attach the results from irrigation water quality test used to determine if chemical maintenance is required.</p> <p>Provide an explanation of chemical maintenance based on the test results. Not Applicable only if chemical maintenance is not conducted. Provide written statement.</p>
4.2.9 (was 4.2.10)	Edit	ME	<p>Was your drip irrigation system designed to eliminate double pumping? -allow direct pumping from the well including enclosed storage systems?</p> <p><input type="checkbox"/> YES: 2 <input type="checkbox"/> NO: 0</p> <p>Provide a written statement explaining how your irrigation system is designed to allow direct pumping from the well.</p>
4.3.2	D	Req	<p>You must track total water the vineyard receives during the season from rainfall, frost protection, and irrigation.</p> <p>Attach records of total water received.</p>

7 Social Equity

Question	Update	Type	Standard
7.1 (combine 7.1, 7.3, 7.6)	Edit	NA	7.1 Worker Orientation and Human Resources Policies
7.1.4	D NEW	Req	<p>If you pay a piece rate, you must have a mechanism to properly compensate break time.</p> <p>Provide documentation. If you do not pay piece rate, explain.</p> <p>Employee safety trainings must be given every time an employee starts work and/or enters a new working environment. Training meetings include:</p> <ul style="list-style-type: none"> • Personal hygiene • Daily change of clean clothing • Recognizing and avoiding unsafe working environments or conditions • Emergency Action Plan training • Safe use and handling of pesticides for handlers and applicators • Pesticide safety and awareness • Pesticide use notification • Equipment safety & ergonomics • Other types of ergonomic/musculoskeletal safety issues (lifting, carrying, etc.) <p>Provide documentation of employee safety training meetings.</p>
7.1.5 (was 7.1.6)	Moved	Req	<p>If your employees are minors (17 years of age or younger) you must...</p> <p>You must have a written heat illness prevention plan. Attach heat stress prevention plan.</p>

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

7.1.6 (was 7.3.1)	Moved	ME	Do you pay all workers competitive salaries...
7.1.7 (was 7.3.3)	Edit Moved	ME	If you offer medical insurance to all of your workers, How much of your medical insurance premium do you cover? 100% premium coverage <input type="checkbox"/> 6 75% premium coverage <input type="checkbox"/> 4 50% premium coverage <input type="checkbox"/> 2 Less than 50% premium coverage <input type="checkbox"/> 0
7.1.8 (was 7.3.4)	Moved	ME	Do you provide family support services for...
7.1.9 (was 7.3.5)	Moved	ME	Do you offer retirement benefits...
7.1.10 (was 7.3.6)	Moved	ME	Do you offer bonuses and rewards...
7.1.11 (was 7.3.7)	Moved	ME	Do you provide information for transportation alternatives...
7.1.12 (was 7.6.2)	Moved	ME	Do you have a formalized process for handling performance evaluations...
7.1.13 (was 7.6.3)	Moved	ME	Do you have a written complaint process...
7.1.14 (was 7.6.4)	Moved	ME	Do you attend annual management training concerning workplace harassment...
7.2 (combine 7.2, 7.5)	Edit	NA	7.2 Worker Development and Ongoing Training
7.2.1 (was 7.1.4)	D Moved	Req	Employee safety trainings must be given every time an employee starts work and/or enters a new working environment. Training meetings include: <ul style="list-style-type: none"> • Personal hygiene • Daily change of clean clothing • Recognizing and avoiding unsafe working environments or conditions • Emergency Action Plan training • Safe use and handling of pesticides for handlers and applicators • Pesticide safety and awareness • Pesticide use notification • Equipment safety & ergonomics • Other types of ergonomic/musculoskeletal safety issues (lifting, carrying, etc.) Provide documentation of employee safety training meetings.
7.2.2 (was 7.2.1)	Edit Moved	ME	Do you hold meetings at least annually to include your workers in your sustainable strategies growing philosophies and long- and short-term goals? Meeting includes all workers <input type="checkbox"/> 3 Meeting includes managers & supervisors <input type="checkbox"/> 2 No <input type="checkbox"/> 0 Provide documentation of worker meetings on sustainable strategies growing philosophies and long- and short-term goals.
7.2.3 (was 7.5.1)	Moved	ME	Do you offer your workers new skills training programs...

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

7.2.4 (was 7.8.1)	Moved	ME	Do you have a system in place that encourages workers to submit suggestions for improving workplace conditions...
7.3 (was 7.4)	Edit	NA	7.3 Safe Work Environment
7.3.1 (was 7.1.5)	Moved	Req	You must have a written heat illness...
7.3.2 (was 7.4.1)	Moved Edit Delete	Req	<p>If your wells are used for drinking water, you must conduct drinking water suitability tests at least every three years. If water quality does not meet suitability test you must provide an alternative source of drinking water or take corrective action.</p> <p>If applicable, provide copies of the sampling results.</p> <p>Do you offer medical insurance to all of your workers?</p> <p>75% or more of employees are enrolled <input type="checkbox"/> 6 50% of employees are enrolled <input type="checkbox"/> 4 25% of employees are enrolled <input type="checkbox"/> 2 No <input type="checkbox"/> 0</p> <p>If yes, list insurance options.</p>
7.3.3 (was 7.4.2)	Moved	ME	Do you have a written procedures plan in place for hazardous material and emergency...
7.3.4 (was 7.4.3)	Moved	ME	Do you offer incentives or have a worker safety rewards program in place...
7.3.5	NEW	ME	<p>Do you conduct a workplace safety inspection, document problems, and take corrective action?</p> <p>Weekly <input type="checkbox"/> 6 Monthly <input type="checkbox"/> 4 Annually <input type="checkbox"/> 2 No <input type="checkbox"/> 0</p> <p>Explain procedure.</p>
7.3.6 (was 7.4.4)	Moved	ME	Do you have regular safety training...
7.4 (was 7.9)	Moved	NA	7.4 Community Involvement
7.4.1 (was 7.9.1)	Edit	Req	You must have a plan in place that addresses neighbor and community communication...
7.4.2 (was 7.9.2)	Moved	ME	Have you participated in at least two events during the last 12 months...
7.4.3 (was 7.9.3)	Moved	ME	Do you have a system in place to notify neighbors...
7.4.4 (was 7.9.4)	Moved	ME	If you use noise makers for bird abatement...
7.4.5 (was 7.9.5)	Moved	ME	Do you log neighbor complaints...
7.7 (now 10.3)	Moved	NA	

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

8 Pest Management

Question	Update	Type	Standard
8.1.1	D	Req	No Active Ingredients (AI) on the Prohibited Materials List (PML) can be used. See attached Prohibited Materials List. Attach pesticide use reports with trade names and active ingredients listed. (Records are required for all certified acres)
8.1.2	D	Req	You must monitor and record the following: <ul style="list-style-type: none"> • Presence and population dynamics of vineyard pests and insect/mite natural enemies at a minimum of every two weeks during the growing season • Presence and severity levels of diseases or disease vectors at a minimum of every two weeks during the growing season • Presence and severity levels of weeds at least once per month during the growing season • Presence and identification of vertebrate pests at least once per month during the growing season Attach Records. Describe your monitoring program.
8.1.4	D	Req	Pesticides (insecticides, fungicides, and herbicides) with different modes of action must be alternated within the seasonal spray program in order to minimize the risk of pesticide resistance development. Attach Spray Records which include target pest, disease, or weed and pesticide mode of action. Provide an example from your vineyard.

9 Continuing Education

Question	Update	Type	Standard
9.1.1	D	Req	You must participate in at least 20 hours of Continuing Education pertaining to farming sustainability issues each year. Attach Continuing Education verification forms totaling 20 hours from the past 12 months.

10 Product Assurance & Business Sustainability

Question	Update	Type	Standard
10.1.1	D	Req	You must record fruit quality parameters on an annual basis, including Brix, pH, and TA. Provide fruit quality parameter records from the previous year.
10.3 (was 7.7)	Moved	NA	10.3 Sustainable Practices and Worker Training Programs for Recycling, Water, and Energy
10.3.1 (was 7.7.1)	Moved	ME	Do you have a recycling program for oil containers, oil filters, tires, batteries...
10.3.2 (was 7.7.2)	Moved	ME	Do you recycle your used bird netting and/or drip hose...
10.3.3 (was 7.7.3)	Moved	ME	Are your procurement procedures based on specific criteria including...
10.3.4 (was 7.7.4)	Moved	ME	Do you have a water and energy conservation program...

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

*****Due December 15, 2017*****

11 Year End Water and Nitrogen Use Reports

Question	Update	Type	Standard
Cp 11	D D+O	Req	Attach documentation and/or calculations with specified units. Final use numbers will be based on acres certified in the SIP Certification program on a per acre basis. You can submit multiple reports to reflect use based on multiple management areas or ranches. The following reports reflect practices from December 1 through November 30 of the certification year. Year End Reports are due to your inspector by December 15 of the certification year. (Records required for all certified acres)

CALCULATIONS

CONVERSIONS AND EXAMPLES

General Parameters

Total Area (ac) _____(y)	
Total Yield (ton) _____(z)	
Tons/Ac _____(x = z / y)	

Water Use Report

Total Water on a **per acre basis.**

Applied Irrigation Water (ac-ft/ac) _____(a)	To convert water units per acre to acre feet, download the UCCE Irrigation Converter .
Applied Frost Water (ac-ft/ac) _____(b)	To convert water units per acre to acre feet, download the UCCE Irrigation Converter .
Rainfall (ac-ft/ac) _____(c)	Example: Inches per acre can be converted to acre feet per acre by dividing by 12. $\frac{10.7 \text{ in/ac}}{12.0 \text{ in/ac-ft}} = \frac{0.89 \text{ ac-ft}}{\text{ac}}$
Total Water (ac-ft/ac) _____(d = a + b + c)	
Efficiency	
Water Efficiency (ac-ft/ton) _____(d / x)	

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

Nitrogen Use Report	
Total Nitrogen on a per acre basis .	
Fertilizer (lbs N/ac) _____(e)	<p>Example for Solid Fertilizer: Ammonium sulfate [(NH₄)₂SO₄] fertilizer contains 21% N or 0.21 lbs N/lb of fertilizer. If 100 lbs of ammonium sulfate are applied per acre, the total N application is 21 lbs/acre.</p> $\frac{100 \text{ lbs (NH}_4)_2\text{SO}_4}{\text{ac}} \times \frac{0.21 \text{ lbs N}}{1.0 \text{ lb (NH}_4)_2\text{SO}_4} = \frac{21 \text{ lbs N}}{\text{ac}}$ <p>Example for Liquid Fertilizer: Ammonium nitrate liquid fertilizer (AN 20) has a density of 10.76 Lbs/gal, and 21% nitrogen.</p> $\frac{10.76 \text{ lbs}}{\text{gal of fertilizer}} \times \frac{0.21 \text{ Lbs N}}{\text{lb of fertilizer}} \times \frac{5 \text{ gal applied fertilizer}}{\text{Ac}} = \frac{11.3 \text{ lbs N}}{\text{ac}}$

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

Compost (lbs N/ac) _____ (f)

Presumptions (if not provided by your producer or lab): Two methods are presented below for converting compost applications per acre to lbs N per acre. The presumption for % N availability is based on an industry standard of 30% (0.30) availability of total N content of compost, and an average weight of 900 lbs per cubic yard of compost.

Example for Tons/Acre Compost Applied: Wet (as is) compost with 1.7% N content, applied at a rate of 5 tons per acre.

Step 1: Convert % N content to lbs N per ton of compost.

$$\frac{1.7 \text{ lbs N}}{100 \text{ lbs compost}} \times \frac{2000 \text{ lbs}}{\text{ton of compost}} = \frac{34 \text{ lbs N}}{\text{ton of compost}}$$

Step 2: Convert lbs N per ton of compost to lbs available N per ton of compost.

$$\frac{34 \text{ lbs N}}{\text{ton of compost}} \times \frac{0.30 \text{ lbs available}}{1 \text{ lb total N}} = \frac{10.2 \text{ lbs available}}{\text{ton of compost}}$$

Step 3: Multiply lbs of available N per ton by total tons applied per acre.

$$\frac{10.2 \text{ lbs available N}}{\text{ton of compost}} \times \frac{5 \text{ tons compost}}{\text{ac}} = \frac{51 \text{ lbs N}}{\text{ac}}$$

Example for Cubic Yards (CY)/Acre Compost Applied: Wet (as is) compost with 1.7% N content, applied at a rate of 5 cubic yard per acre.

Step 1: Convert % N content to lbs N per cubic yard of compost.

$$\frac{1.7 \text{ lbs N}}{100 \text{ lbs compost}} \times \frac{900 \text{ lbs}}{\text{cy of compost}} = \frac{15.3 \text{ lbs N}}{\text{cy of compost}}$$

Step 2: Convert lbs N per cubic yard of compost to lbs available N per cubic yard of compost.

$$\frac{15.3 \text{ lbs N}}{\text{cy of compost}} \times \frac{0.30 \text{ lbs available N}}{1 \text{ lb total N}} = \frac{4.6 \text{ lbs available N}}{\text{cy of compost}}$$

Step 3: Multiply lbs of available N per cubic yard by total cubic yards applied per acre.

$$\frac{4.6 \text{ lbs available N}}{\text{cy of compost}} \times \frac{5 \text{ cy of compost}}{\text{ac}} = \frac{23 \text{ lbs N}}{\text{ac}}$$

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

Water (lbs N/ac) _____ (g)

Presumptions: Two methods are presented below for converting irrigation water applications per acre to lbs N per acre. Nitrogen content of water is most commonly reported in ppm NO3 or ppm NO3-N. NO3 is converted to lbs N/acre foot of water by multiplying by 0.62. NO3-N is converted to lbs N/acre foot of water by multiplying by 2.74. A detailed description of these conversion factors can be viewed [online](#).

Example for lab report of ppm NO3: Report from lab shows 45ppm NO3 and a total of 0.89 acre feet (ac-ft) of irrigation water was applied.

Step1: Convert ppm NO3 to lbs N/acre foot of irrigation water applied.

$$45 \text{ ppm NO}_3 \times 0.62 = 27.9 \text{ lbs N/ ac-ft}$$

Step 2: Multiply lbs N/ac-ft by total irrigation water applied per acre.

$$\frac{27.9 \text{ lbs N}}{\text{ac-ft}} \times \frac{0.89 \text{ ac-ft irrigation water}}{\text{ac}} = \frac{24.8 \text{ lbs N}}{\text{ac}}$$

Example for lab report of ppm NO3-N: Report from lab shows 45ppm NO3-N and a total of 0.89 acre feet (ac-ft) of irrigation water was applied.

Step1: Convert ppm NO3-N to lbs N/acre foot of irrigation water applied.

$$45 \text{ ppm NO}_3 \times 2.74 = 123.3 \text{ lbs N/ ac-ft}$$

Step 2: Multiply lbs N/ ac-ft by total irrigation water applied per acre.

$$\frac{123.3 \text{ lbs N}}{\text{ac-ft}} \times \frac{0.89 \text{ ac-ft irrigation water}}{\text{ac}} = \frac{109.7 \text{ lbs N}}{\text{ac}}$$

*Efficiency of fertilization and of irrigation are not factored into the above equations.

Total Applied Nitrogen (lbs N/ac) _____ (h = e + f + g)

Nitrogen Efficiency (lbs N/Ton) _____ (h / x)

Standards Updates

Use the following Standards to update your documentation based in your certification cycle.
Under the Type column, Req = Requirement and ME = Management Enhancement.

Prohibited Materials List 2017

Information obtained from the Department of Pesticide Regulation sources based on flagged materials registered for use on grapes. Due to the fluctuating registrations of many materials, trade names are not listed. It is the responsibility of the applicant to list trade names and active ingredients on documentation.

Active Ingredient	Cholinesterase Inhibiting	Groundwater Protection	Toxic Air Contaminant	CA DPR Restricted	Federal EPA Restricted
(S)-CYPERMETHRIN					X
2,4-D			X	X	
2,4-D, DIMETHYLAMINE SALT			X	X	
4-AMINOPYRIDINE				X	X
ABAMECTIN					X
ACEPHATE	X				
ALUMINUM PHOSPHIDE			X	X	X
BETA-CYFLUTHRIN					X
BIFENTHRIN					X
CAPTAN			X		
CARBARYL	X		X	X	
CHLOROPICRIN			X	X	X
CHLORPYRIFOS	X			X	X
CYFLUTHRIN					X
DIAZINON	X				X
DIMETHOATE	X				
DIPHACINONE					X
DIURON		X		X	
ENDOSULFAN			X	X	X
ETHEPHON	X				
FENBUTATIN-OXIDE					X
FENPROPATHRIN					X
HYDROGEN CYANAMIDE					X
MAGNESIUM PHOSPHIDE			X	X	X
MALATHION	X				
MANCOZEB			X		
META-CRESOL			X		
METHIOCARB	X				X
METHOMYL	X			X	X
METHYL BROMIDE			X	X	X
NALED	X				X
NORFLURAZON		X		X	
OXYDEMETON-METHYL	X			X	X
PARAQUAT DICHLORIDE				X	X
PHOSMET	X				
POTASSIUM N-METHYLDITHIOCARBAMATE			X	X	X
PROPARGITE					X
PROPYLENE OXIDE			X		X
PROPYZAMIDE					X
SIMAZINE		X		X	
SULFUR DIOXIDE					X
SULFURYL FLUORIDE			X	X	X
TRIFLURALIN			X		
ZINC PHOSPHIDE			X	X	X