

Review #	AZ LGMA New Proposed Language	CALGMA Proposed language	Summary of Technical Committee Member Comments	Notes from CA LGMA Reviewers	Future Considerations
1	Clean and sanitize food contact surfaces on harvest equipment at the end of each daily harvest, or when moving between commodities & fields and when excessive soil has built up .	CA doesn't suggest any edits to AZ proposed language.	More clarity on the term "Excessive"; requirements should be for Mechanical Harvesting and for Hand Harvesting; Used language in CALGMA 682-687, Simpler language	May want to add a glossary definition to the term excessive. Excessive is used in the section under production locations in the CA LGMA metrics.	Review if there is a risk difference between hand and mechanical harvest?
2	Daily inspection that addresses cleaning & sanitation, or noticeable change in conditions from prior sanitation and if necessary the rinsing and sanitizing of food contact surfaces on harvest equipment prior to beginning harvest. (i.e. dirt, debris, dust, droppings, etc.)	Prior to beginning harvest, conduct a daily inspection that addresses cleaning and sanitation, or a noticeable change in conditions from prior sanitation. If necessary, rinse and sanitize the food contact surfaces on harvest equipment. (i.e. accumulation of dirt, debris, dust, droppings, etc.)	Rinse equipment prior to start up; subjective verbiage "Noticeable Change"; since equipment is cleaned by different crew, how does foreman know change in condition; can we enforce rinse off prior to start	Moved "Prior to beginning of harvest, conduct!" to the beginning of the proposed language and did minor editing.	Potential glossary term for "noticeable change" or use similar language such as "material change"
3	Documentation (logs or records) must be maintained daily for each cleaning & sanitation event. Records must be reviewed, dated and signed by a supervisor or responsible party within a week after the records are made.	CA doesn't suggest any edits to AZ proposed language.	Already a requirement to do this; repetition is fine		
4	Harvester sanitation personnel must utilize PPE equipment such as gloves, aprons, boots, face shields, respirators (if required) in such a way as to prevent cross-contamination of harvest equipment, tools, etc.	CA doesn't suggest any edits to AZ proposed language.	Some concern if this is necessary, should be in SOP		Add glossary term for "Sanitation PPE". Potentially conduct a poll to determine which handlers/harvesters have created SOPs for Sanitation related PPE.
5	Harvest sanitation crew must store all cleaning and sanitation chemicals in a designated and secure location that is locked and secure	CA doesn't suggest any edits to AZ proposed language.	Chemical storage addressed in metrics; definition of secure location;		Glossary term for "secure location"?
6	Prepare an SOP for harvest equipment and containers that addresses the following: Daily inspection that addresses cleaning and sanitation, or noticeable change in conditions from prior sanitation. Rinse food contact surfaces on all harvest equipment, can re-clean and sanitize food contact surfaces that have any dirt, debris, dust, droppings etc. prior to starting harvest	CA doesn't suggest any edits to AZ proposed language.	Confusion between rationale and proposed language; "noticeable changes" questioned;		Add glossary term for "Sanitation PPE". Potentially conduct a poll to determine which handlers/harvesters have created SOPs for Sanitation related PPE.
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8	When Prior to harvest crews exiting for breaks there should be a receptacle with clean, untouched, microbially potable sanitized water for tools to be placed in. Harvester SOP	Prior to harvest crews exiting for breaks, there should be a receptacle for tools. Water used should be safe and of adequate sanitary quality for its intended use.	Isn't this already addressed;	Change from "microbially potable sanitized water" To the FSMA description for water, "agricultural water must be safe and of adequate sanitary quality for its intended use"	
9	Daily inspection that addresses cleaning & sanitation, or noticeable change in conditions from prior sanitation and if necessary the rinsing and sanitizing of food contact surfaces on harvest equipment prior to beginning harvest. (i.e. dirt, debris, dust, droppings, etc.)	CA doesn't suggest any edits to AZ proposed language.	What is 'noticeable changes'; original sentence is fine, refers to recleaning if necessary		Potential glossary term for "noticeable change" or use similar language such as "material change"
10	Consider methods that aid in sanitation verification (e.g. ATP, APC, etc.). At line 686 add:	CA doesn't suggest any edits to AZ proposed language.	Examples needed for sanitation verification; don't add APC/ATP; are there better methods than ATP/APC; leave in ATP, what are new tools		Examples needed for sanitation verification that are appropriate for field sanitation purposes. Handlers can use ATP/APC if they deem it is appropriate.
11	Maintenance, cleaning, and sanitation schedules for equipment used in hydration must be maintained daily	Maintenance, cleaning, and sanitation schedules for equipment used in hydration must be maintained .	Is this for nurse tanks? SOP for cleaning already in place; All hoses & spray nozzles removed and inspected daily? Try it before it is required	Removed daily to assure companies can determine frequency requirements.	
12	(remove).				
13	(remove).				
14	(remove 735-737).				

15	<p>Prepare an SOP for harvest equipment and containers-tools that addresses the following:</p> <ul style="list-style-type: none"> -Clean and sanitize when moving between commodities and fields -Daily inspection that addresses cleaning and sanitation or noticeable change in conditions from prior sanitation and if necessary the rinsing and sanitizing of food contact surfaces on harvest equipment prior to beginning harvest. (i.e. dirt, debris, dust, droppings, etc.) -Proper cleaning sanitation and storage of hand-harvest equipment (knives, scythes, etc.) -Prior to harvest crews exiting for breaks there should be a receptacle with clean, untouched, microbially potable-water with sanitizer for tools to be placed in -Consider methods that aid in sanitation verification -Maintenance, cleaning and sanitation of equipment used for hydration -Control procedures when equipment is not in use, including policy for removal of equipment from the work area or site and the use of scabbards, sheathe or other storage equipment 	<p>Prepare a SOP for harvest equipment, containers, and tools that addresses the following:</p> <ul style="list-style-type: none"> •Clean and sanitize when moving between commodities and fields •Prior to beginning harvest, conduct inspections that address the cleaning and sanitation or noticeable change in conditions from prior sanitation. If necessary, rinse and sanitize food contact surfaces on harvest equipment. (i.e. accumulation of dirt, debris, dust, droppings, etc.) •Proper cleaning, sanitation, and storage of hand-harvest equipment (knives, scythes, etc.) •Prior to harvest crews exiting for breaks, there should be a receptacle for tools •Water used should be safe and of adequate sanitary quality for its intended use •Consider methods that aid in sanitation verification •Maintenance, cleaning, and sanitation of equipment used for hydration must be maintained •Management procedures when equipment is not in use (i.e. end of season). To include a policy for removal of equipment from the work area (i.e. containers, scabbards, sheaths, or other harvest equipment) 	<p>Concern with 'Clean, untouched water', strike "consider methods that aid in sanitation verification", move this to an appendix, how and where will the "Agricultural water must be safe and of adequate sanitary quality" be inserted in the proposed language</p>	<p>CA language is updated based on previous edits in above rows.</p>	<p>Potential glossary term for "noticeable change" or use similar language such as "material change"</p>
16	<p>Prepare an SOP for handling and storage of harvest containers that addresses the following:</p> <ul style="list-style-type: none"> Daily inspection Proper cleaning and sanitation - routine and for changes in conditions of materials Overnight storage Contact with the ground Container assembly (RPC, fiber bin, plastic bin, etc.) Damaged containers Use of containers only as intended 	<p>CA doesn't suggest any edits to AZ proposed language.</p>			
17	<p>Food packing materials must be of adequate food safety design and quality for their intended use, which includes:</p> <ul style="list-style-type: none"> - Cleanable and/or designed for single use to prevent the possible growth or transfer of pathogens - Store packing containers and materials off the floor or ground, and covered or in a covered area. - If packing materials are re-used, ensure that food contact surfaces are clean or lined with a new liner. - Consider obtaining a letter of guarantee for reusable containers if not cleaned in-house. - Packaging containers shall be free of breaks, cracks or broken or missing pieces 	<p>Food packing materials must be of adequate food safety design and quality for their intended use, which includes:</p> <ul style="list-style-type: none"> •Cleanable and/or designed for single use to prevent the possible growth or transfer of pathogens •Storage of packing containers and materials off the floor or ground, and protected to the degree possible to prevent contamination •Ensure that food contact surfaces of re-usable packing materials are clean or have a new liner •Consider obtaining a letter of guarantee for reusable containers if not cleaned in-house •Packaging containers shall be adequate for their intended use 	<p>Is it reasonable to always store packing material in a covered area? Is Requirement that containers be free of breaks, cracks doable?; grave implications on harvest operations with some of these requirements; add that shippers that supply RPCs etc. to comply with LGMA; Many containers have small cracks etc.</p>	<p>Clean up language for consistency with fsma produce rule.</p>	
18	<p>Cut surfaces are vulnerable to microbial contamination. Prepare an SOP that minimizes the potential introduction of contamination during and after mechanical harvest operations.</p>	<p>Cut surfaces are vulnerable to microbial contamination. Prepare an SOP that prohibits ground contact to avoid cross contamination and minimizes the potential introduction of contamination during and after harvest operations.</p>	<p>Does this allow ground harvest? Is this about mechanical or ground harvest?</p>	<p>Added the prohibition of ground contact and removed the word mechanical in the last sentence in reference to mechanical harvest.</p>	
19	<p>Consider removal, but may be helpful to reiterate.</p>				
20	<p>Consider removal, but may be helpful to reiterate.</p>				

21	Design and refurbish to the degree possible all equipment and tools to facilitate cleaning to a microbiologically clean level: Food equipment must be constructed to ensure effective and efficient cleaning of the equipment over its lifespan. The equipment should be designed as to prevent bacterial ingress, survival, growth and reproduction on both produce food contact and non-product contact surfaces of the equipment. o Seams on food contact surfaces on equipment and tools must be smoothly bonded or maintained to minimize accumulation of dirt, filth, food particles, and organic materials and the opportunity for harborage or growth of microorganisms.	Design food contact equipment and tools to facilitate cleaning. Food equipment should be constructed, and maintained, to ensure effective and efficient cleaning of the equipment over its lifespan. The equipment should be designed as to prevent bacterial ingress, survival, growth and reproduction on both food contact and non-product contact surfaces.	How will this be auditable	Changed "must" be constructed to "should be". Removed " to a microbiologically clean level". Changed "refurbished to the degree possible" to "maintained". The PSR specifically calls out sanitary design of equipment and retrofitting of equipment.	What is microbiologically clean for harvest equipment? New tools for verification? Resources for the proper updating and refurbishing of equipment.
22	Sanitizing and cleaning operations of equipment should take place away from product and other equipment to reduce the potential for cross contamination.	CA doesn't suggest any edits to AZ proposed language.			
23	Place at 847-849. New language: When farm equipment has had direct contact with raw untreated manure, untreated compost, waters of unknown quality, animals, uncovered produce as defined in the PSR, excessive soil or other potential human pathogen reservoirs it may be a source of cross contamination. If farm equipment comes into contact with a potential source of contamination steps need to be set in place to address cleaning and sanitation to prevent cross contamination.	Develop an SOP that requires the re-cleaning and sanitation of any equipment that becomes contaminated with potential pathogens.	Definition and standard on "excessive soil"	Suggest simplified language.... Site resources and appendices to give more specificity.	
24	State again in issue 12 for the distinction between harvest equipment and regular farming equipment.	CA doesn't suggest any edits to AZ proposed language.			
25	Reduce the potential for contamination of food contact surfaces by effective building design including the separations of operations in which contamination is likely to occur. Suggestions are location, time, partition, enclosed systems, or other effective means.	CA doesn't suggest any edits to AZ proposed language.	remove line that starts with "Suggestions"	Suggestion is similar as for example or i.e.	
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27	Add Rock/Suslow 2019	CA doesn't suggest any edits to AZ proposed language.			
28	Ensure employees have been trained on the importance of minimizing the potential of cut product to contact the soil.	CA doesn't suggest any edits to AZ proposed language.	Isn't this being done already?		
29	Evaluate the field for conditions that are likely to increase the risk of soil contact with cut product. Examples such as mud, excessive dust and debris		More work needed on weather section; excessive hard to define, remove examples	Suggest combining this with the next 2 submissions.	
30	Employ measures to minimize the potential introduction of human pathogens through soil contact of cut product at the leafy green cut surface after harvest (e.g. frequency of knife sanitation, no placement of cut surfaces of harvested product on the soil, container sanitation, single-use container lining, etc.).			Suggest combining with ground packing item above and packing material below.	
31	Packaging material should not have direct contact with soil. Physical barriers (i.e. liners, covers, existing plant material or other clean barriers) should be used to separate from soil		Adding liners between carton and ground is an added costs, issue in wind	Suggest combining this with the previous 2.	
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33	<i>Cyclospora cayetanensis</i> is a human parasitic pathogen that causes a gastrointestinal infection in humans called cyclosporiasis. Individuals can become infected through ingestion of contaminated food or water.	CA doesn't suggest any edits to AZ proposed language.	are there definitions for other illnesses? Need to be consistent;		
34	Bring statement from 828 "Use of antiseptic/sanitizer or wipes, as a substitute for soap and water, is not permitted" to bullet 796-799 for additional emphasis.	CA doesn't suggest any edits to AZ proposed language.			

35	Training topic on glove use, when should gloves be replaced or cleaned? - not changing language but adding T&E component into LGMA program.	CA supports training	Add language to Training section		
36	The use of latex in gloves or other PPE is prohibited due to allergy concerns for workers and consumers.	The use of latex in gloves or other PPE is prohibited due to allergy concerns for workers and consumers. Prohibit the use of personal gloves and prohibit taking gloves home.	What about trucker gloves, tractor driver gloves? Is this Food safety or HR issue? Leave it up to individual company to decide.	Adding language prohibiting personal gloves and taking them home. Only for harvest employees touching product.	
37	Instruct personnel to notify their supervisors if they may have a health condition that may result in contamination of covered produce or food contact surfaces. Companies shall develop & communicate return to work policies for returning employees to food contact positions after an illness or injury cuts & grazes.	Instruct personnel to notify their supervisors if they may have a health condition that may result in contamination of covered produce or food contact surfaces. Companies shall develop & communicate return to work policies for returning employees to food contact positions after an illness or injury cuts & grazes.		Changed cuts and grazes to injury for consistency.	
38	Additional training and education on illnesses that can be asymptomatic (e.g. Cyclospora, hepatitis, COVID -19) must be included in existing health and hygiene SOPs. should be considered.		Remove references to COVID-19; Too prescriptive when calling out the specific illnesses, HR should handle this, Make a part of company health and welfare policy, not in metrics	Suggest making this training mandatory. Additional training and education on illnesses that can be asymptomatic (e.g. Cyclospora, hepatitis, COVID -19) must be included in existing health and hygiene SOPs.	
39	A field sanitary facility program (i.e., an SOP) shall be implemented, and it should address the following areas: the number, condition, frequency, type & location of cleaning [i.e., field permanent vs harvest placement] according to federal, state or local regulation, the accessibility of the units to the work area, facility maintenance, facility supplies [i.e., hand soap, water (use of antiseptic/sanitizer or wipes, as a substitute for soap and water, is not permitted), single-use paper towels, toilet paper, etc.], facility signage, facility cleaning and servicing, and a response plan for major leaks or spills.	A field sanitary facility program (i.e., an SOP) shall be implemented, and it should address the following areas: <ul style="list-style-type: none"> •Prohibit the cleaning of portable toilets bordering growing fields •Address the number, condition, frequency, type and location of cleaning [i.e., field permanent vs harvest placement] •Federal, state or local regulations •The accessibility of the units to the work area •Facility maintenance •Facility supplies [i.e., hand soap, water, single-use paper towels, toilet paper, etc.] •Use of antiseptic/sanitizer or wipes, as a substitute for soap and water, is not permitted •Facility signage •Facility cleaning and servicing •A response plan for major-leaks or spills 	Too vague, there are differences between permanent and stationary, distance restrictions on use of power washer and parking of unit, how is adjacent defined	Cleaning toilets in very close proximity to production fields is a concern. Bordering is a term that relates to close proximity. Removed the word "major" in the last bullet as spill size is subjective.	References for spill size or spill regulations. <ul style="list-style-type: none"> •http://www.fda.gov/Food/FoodSafety/FoodContaminantsAdulteration/default.htm •Intawongse, M. and Dean, J. R. 2006. Uptake of heavy metals by vegetable plants grown on contaminated soil and their bioavailability in the human gastrointestinal tract. Food Additives and Contaminants. 23:36-48. •Provin, T. L., Feagley, S. E., Pitt, J. L., and McFarland, M. L. 2008. Soil Testing Following Flooding, Overland Flow of Waste Waters and other Freshwater Related Disasters Where a potential source of contamination is identified, corrective measures must be taken that are effective, efficacious and on going in reducing or minimizing the potential risks from contaminated land, surrounding properties and facilities. The following are examples of possible corrective measures done if high levels or concentrations of pathogens, pesticides or chemicals, or physical contaminants are found: <ul style="list-style-type: none"> •Land or facility treatment/fumigation. oComply with all local, state and federal laws, regulations and guidelines for treatment/fumigation. •Establishing buffers and/or barriers (i.e. fencing, windbreaks, drain canals, berms, etc. • Alternative growing, packing, cooling or storage sites. •Removal and disposal of contaminated soil in a designated land fill.
40	Establish an inspection plan for the use of foot dips, boot track-out and similar protections if utilized in the operation.		We recommend removing this row so to avoid confusion.		
41	Whenever appropriate, segregate and properly label, (i.e. color code, tool description) cleaning and sanitizing equipment and tools to prevent misuse or cross-contamination. (e.g.: Tools used for bathroom cleaning).	CA doesn't suggest any edits to AZ proposed language.		Whenever appropriate is similar to If Applicable so no changes were made.	
42	Ensure that workers are trained on concepts of tool separation and color coding.	Ensure that workers are trained regarding portable unit cleaning procedures.	Color coding used in processing plants not field, cleaning equipment is only used by cleaning personnel,	For companies that perform cleaning internally it is important that they have cleaning tool separation.	
43	Cleaning utensils used for sanitary units shall be stored in a manner to prevent contamination when not in use and only used for this purpose.	If applicable, cleaning tools used for sanitary units shall only be used for sanitary unit cleaning and shall be stored in a manner to prevent contamination when not in use.	Add "If Applicable" as outside companies often clean equipment and bring their own tools. Can be addressed with an SOP	"If applicable" was added and minor edits for flow.	

44	Establish and implement equipment and supply storage and control procedures when not in use. Indicate storage of harvest units when not in use and cleaning procedures prior to placing back into service before transporting to harvest or field location.	When harvest equipment is not used, implement control and storage procedures that assure recleaning of equipment before its next use.	Should apply to sanitation company	Minor edits for simplification	
45	Maintain documentation of maintenance and sanitation schedules and any remedial practices for a period of two years. Servicing records (either contracted or in-house) should be available for review to verify this is occurring according to the SOP. Waste disposal shall be in accordance with all state and federal regulations and in an authorized location.	Maintain documentation of maintenance and sanitation schedules and any remedial practices for a period of two years. Servicing records (either contracted or in-house) should be available for review to verify this is occurring according to the SOP. Waste disposal shall be in accordance with all state and federal regulations and in an authorized location.	Units are usually cleaned in the evening, does this mean they have to be cleaned again in the morning prior to harvest. This is for record maintenance; reference to disposal of waste does not belong in this section.	In CA LGMA the legal disposal of waste is covered in Best Practices of field and harvest personnel.	
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47	Allow adequate distance for the turning and manipulation of farm equipment to prevent cross contamination from areas or adjacent land that may pose a risk.	CA doesn't suggest any edits to AZ proposed language.			
48	When farm equipment has had direct contact with raw untreated manure, untreated compost, waters of unknown quality, animals, uncovered produce as defined in the PSR, excessive soil or other potential human pathogen reservoirs it may be a source of cross contamination. Should a cross contamination take place refer to SSOP and adequately clean and sanitize before using the equipment to harvest lettuce/leafy greens.	See #23 for examples of simplified language.	Is this already in current metrics? Uncovered produce in the PSR doesn't appear to present any Food Safety Issues, what is the concern?	Leafy greens are covered produce and high risk. While unlikely to occur, if equipment contacts uncovered produce this could be a risk.	