







Public Health and Food Safety Certification for Human Food Production;

Food Microbiology Technical Assistance; and

USDA Organic Certification Compliance in

Antigua, Guatemala

(June 2nd to 16th, 2019)

Trip Report

July 2019



Aliyar Fouladkhah, PhD, MS, MPH, MACE, CFS, CPH

Assistant Professor, Tennessee State University

Director, Public Health Microbiology Laboratory

F2F/USAID Volunteer

(1). Executive Summary:

Representing the Public Health Microbiology Laboratory that I founded in 2015, had the great pleasure of serving USAID Partners of America program again as a volunteer from June 2 to 16 2019. During the assignment in Antigua, Guatemala was able to provide a food safety and public health certification workshop and assist two manufacturers in the country for improving their operations and access to the U.S. market. Antigua is a Spanish-speaking, small city in the central part of Guatemala, founded in the early 16th century and surrounded by semi-active volcanic mountains. The town is one of the UNESCO's world heritage centers, packed with magnificent historic buildings and a very lush, diverse, and floral vegetation in the city and the surroundings. Antigua is also home to an array of food manufacturing operations and agricultural farms, one of the main driving forces of economy in the country.

I purposefully chose these dates for the assignment- As you may know, the United Nations has proclaimed June 7, 2019 as the first annual World Food Safety Day. To celebrate this day, Public Health Microbiology Laboratory held a food safety certification workshop for the food industry leadership and USAID officers of Guatemala in the historic city of Antigua. Twelve leaders of Guatemala food industry were selected to receive the certification for assuring compliance with the most recent food safety regulatory landscape and public health of their stakeholders through FSPCA Preventive Control for Human Food training.

The workshop was supplemented with questions and answers sessions specific to participants' own products such as: hemp heart, cocoa butter, apple cider vinegar, Kombucha, tree nuts, local seasoning blends, ghee, chocolate bars, single origin local coffee, chorizos, aged cheeses, plantain and vegetable-based snacks, ready-to-eat frozen foods, and artisanal baked products. They learned overviews of risk-based hazard analyses and control of important foodborne pathogens such as public health significant serotypes of *Listeria monocytogenes*, various serovars of non-typhoidal *Salmonella*, various serogroups of Shiga toxin-producing *Escherichia coli, Staphylococcus aureus*, and Norovirus. I then had the opportunity to assist two selected manufacturers (local coffee and local "supper foods") for the 12 days to improve their food safety operations, assisting them meeting the organic certification requirements, and improving their business development and access to the US market.

2

I truly enjoyed teaching the multi-day workshop and am very pleased with the progress and capacity building made during the rest of the assignment and would like to thank USAID officers in Guatemala and Washington for harmonizing the events of the program. The United States imports around 15% of its food products from other nations with a significant portion of the importation from South American countries. Programs like this training and outreach event are crucial for assuring the food safety, food security, economic prosperity, and the public health both in Guatemala and the United States.

Sincere regards,

Aliyar Fouladkhah, PhD, MS, MPH, MACE, CFS, CPH Assistant Professor, Tennessee State University Director, Public Health Microbiology Laboratory Yale School of Public Health Alumnus

Activities before Arrival:

In March 26, had a chance to do a video conference call with USAID Guatemala Officers and one of the host companies of the program, Yogi's Supper Food. During the conference call we discussed the program agenda and I had a chance to hear from the host, his existing concerns about his production and his needs areas. We finalized a program agenda (**Annex 1**) and also had a chance to discuss the logistics to make sure the travel from the capital of Guatemala (Guatemala City) to Antigua, the city of the host institutions, is arranged well. This cornerstone meeting was very critical to assure development of the curriculum for this training program and

afforded me the opportunity to learn the areas that require capacity building during the assignment. Would strongly recommend similar meetings for future volunteers to assure them fully apprehend the scope of work, the needs area, and logistics of the assignment. The main request from the host institution was to deliver a certification workshop for food science leadership of the Antigua, assist Yogi Super Food to



improve their food safety operation, helping the company meeting the organic certification requirements, and assist a local coffee producer to improve its safety of the operation and access to the U.S. market.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Participants of Public Health Microbiology Laboratory Food Safety and Public Health Training and Certification, Antigua, Guatemala

Activities on 6-2-2019:

Arrival to Guatemala City. Thanks to arrangement from the local USAID officer during the conference call, it was relatively easy to locate a local volunteer who assisted in commuting from Guatemala City, where the international airport is located, to Antigua, the city of the assignment. Custom and Boarder Protection in Guatemala does not require a visa for visitors of 30 days and less from the United States thus the paperwork in airport was relatively easy to follow and took only few minutes. Upon arrival I had a chance to locate the residance assigned to me in Antigua

and met with the owner of the company after few hours. During the meeting, he discussed his

company origin and current products, main places that he sells his products and areas he is hoping to make improvements during the assignment. We then went to a local store, the largest location that carries some of his products. The company is a packing facility for a line of dry seasoning, spices, nuts, and dried fruits and has a commercial kitchen for processing granola, tempering chocolate, making ghee, and producing fermented products such as apple cider vinegar and kombucha.



Photo courtesy: Some of Yogi's Super Food products in retail market.

Activities on 6-3-2019:

Meeting with USAID/Partners of the Americas/Farmer-to-farmer program director and staff in Antigua. We held a meeting in a guest room of a hotel with leadership members of the food industry in the region (Annex 2). They all introduced their company and products and discussed area that would need to have additional information. Companies had an array of products such as hemp heart, cocoa butter, apple cider vinegar, Kombucha, tree nuts, local seasoning blends, ghee, chocolate bars, single origin local coffee, chorizos, aged cheeses, plantain and vegetable-based snacks, ready-to-eat frozen foods, and artisanal baked products. They expressed interest to learn more about Food Safety Modernization Act requirements for production of Human Food and also obtain the course certifications. They particularly expressed interest in the documentation requirements of the legislation and also the hazard analysis and risk-based food safety management system. Thanks to financial support from Public Health Microbiology program (USDA NIFA Projects 2017-07534; 2017-07975; 2017-06088), all 12 participants received FSPCA for Human Food course manual hard copy and the certification and training at no cost. Currently this course costs around \$750 to \$900 per person in courses that are currently offered in Mexico and the United States so the participants received an approximately \$9,000 savings for participating in the current program. The main curricula of the workshop is available on FSPCA website at (https://www.ifsh.iit.edu/fspca), thus is not included in this report. This is currently the only curricula for this section of FSMA legislation that is recognized as adequate by the U.S. Food and Drug Administration. Additional slides that I prepared for the participants are included in **Annex 3**. I introduced the participants to the legislation and made sure the assimilation of the importance of the legislation both for the public health and for business development, especially

for those companies who would like to pursue business with the United States. The presentations where followed by group exercises and also supplemented with specific Q&A by the participants when they were mentioning specific scenarios in their processing plant for adopting the information from the workshop. Specifically, participants were



introduced to biological, chemical, and physical hazards in manufacturing, prerequisite requirement for developing a food safety plan, and principles of risk-based hazard analysis in manufacturing of human food

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Dr. Aliyar Fouladkhah conducting the above-mentioned food safety and public health workshop for Antigua food industry leadership.

Activities on 6-4-2019:

The second day of the workshop was dedicated to explaining process controls, control of allergens and avoiding cross-contact, best sanitation practices, supplier verification programs, verification activities and record keeping, development of recall plan, and implementation of a food safety plan in a food company. Conduct of hazard analyses were also practiced in details to assure the participants could adopt this risk assessment practice in their operations. Participants brought a collection of products from their company that were lead to in-depth



discussion at the end trainings. Specifically various aged cheeses, local chorizo varieties, readyto-eat vegetable snacks, local single source coffee and artisanal breads were brought to the workshop from participants and specific concerns of each product was discussed. A social media posting of the certification also prepared and posted that as of July 15, 2019 has received >2,500 views. The link could viewed at:

https://www.linkedin.com/feed/update/urn:li:activity:6542182082280509441

[Accessed July 15 2019]

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. The 500+ manual that was discussed with the producers and provided for participants at no cost thanks to financial support from Public Health Microbiology Laboratory (USDA NIFA Projects 2017-07534; 2017-07975; 2017-06088)

Recommendation(s):

-Many of the food manufacturers in Antigua region and in Guatemala in general are developing business with the United States. Under the Food Safety Modernization Act that had been signed into law in 2011 and has recently been implemented in the United States, foreign companies would need to follow the Foreign Supplier Verification Program (FSVP). This is a similar workshop to those I conducted for the stakeholders. Future FSVP certification would be of great help and importance for the food industry stakeholders in Antigua, Guatemala.

Activities on 6-5-2019:

Certification workshop was concluded and name of those participants who were able to complete the activities and attend the lectures were submitted for certification (**Annex 4**). A local company was identified to provide required documentation for organic certification forYogi Supper Food (Mayacert). This was obtained after review of certification documents of similar companies in Antigua and talking with a local USAID officer who had been involved in organic certifications in past. Tour of the processing plant in Yogi Super Food was conducted. One major concern of the company was working with very small suppliers who are unable to provide certificate of analyses. Provided information about how to apply for exemption for certificate of analyses for those producers providing product worth less than \$5,000 per year to the company. Alternative methods for assuring the safety of products (letters of assurance, and yearly onsite

7

review of the suppliers operation) were suggested. The owner was introduced to an array of existing resources, particularly those articulated on National Organic Program website and outreach information from USDA certification program for small entrepreneurs. Similar local resources from the above-mentioned certifying agency were introduced to the company. Pest control was identified as an area that needs major improvement. A local pest control company was contacted, and during the assignment period new pest control systems were implemented. The company was further informed about various types of organic certifications such as "100% Organic," "Organic," "Made with Organic ingredients," and using "ingredient panel," for products that have less than 70% of organic ingredients. Company was assisted to complete the forms in English, specific aspect of the products were discussed such as difference between ingredients and processing aids.

Recommendation(s)

- Company was suggested to use a new sanitizer (sodium hypochlorite) that is compliant with organic certification requirements and is considered as no-rinse sanitizer for food contact surfaces. Currently the company does not sanitize an array of food contact and non-food contact

surfaces. This particularly is concerning for use of chocolate trays, jars for repack of Ghee and Cocoa butter and tools and equipment for measuring dry seasoning and ingredients. The staff (**Annex 5**) were introduced to new proposed sanitation plan and requested to wear gloves at all times. A sanitation log was developed and given to company. Mid-shift cleaning, as well as documenting the pre and post-operation cleaning were also suggested to assure the cleaning and sanitization is effective, consistent, and documented for auditors.



-New zoning in the operation was proposed and implemented. A separate part of the company was designated to organic production and conventional products. New barriers were installed to assure separation of the production processes and avoid cross-contact of allergens and organic

and convention ingredients. New footbath was prepared to assure compliance with food safety and organic certification requirements.

-Company owner was notified about inconsistency in their products labeling. Importance of label integrity were articulated to the owner both from ethics perspective and also from public health stand point particularly for listing the required allergens. Some of the products of the company carry terminology such as probiotics (for kombucha and apple cider vinegar) while the product does not have any probiotic or prebiotic properties. The company simply is selling an unpasteurized product and market the product as probiotic that is not compliant with regional and the U.S. standards of identity and would need to be corrected. The labels also do not list the existing allergens, this might not be a regulatory issue in Antigua market but is certainly a requirement if Yogi's Super Food intent to sell products in the United States or Europe.

-The company is currently relying on a small UV chamber/box to sterilize the jars for several products. Although this provide some level of sanitization but the unit performance is not recently validated specially since it has been in use for several years it is unclear if it still is efficacious for removal of potential pathogens from the jar as well as spoilage organisms. The company was advised to clean and sanitize the jars (200 ppm sodium hypochlorite) and the keep them in UV chamber prior to packing to assure the containers are microbiological clean and safe to use.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Some of the changes made during the assignment: new layout in Yogi Supper Foods to minimize contamination and to assure segregation of organic and conventional processes.

Activities on 6-6-2019:

The onsite audited continued during this day. The outside area of the processing plants were recommended to be remodeled. Currently contains sand and soil that is not microbiologically cleanable. Food grade rubber or a cleanable smooth sruface was suggested. A footbath was implemented at the enterance of the company's processing palnt. A quaternary ammonium compound based sanitizer was suggested and prepared for this purpose. A new jar was tested in the company to assure the jar and the cap is not leaking and could hold the liquid products during the shelf-life without any problem.

9

Recommendation(s)

- The company was recommended to assure hand washing of all employees. Although they do practice this important food safety requirement, they have to travel a long distance form

the entrance to middle of the processing plantto wash their hands. It was recommended tohave a handwashing station at the entrance ofthe company.

 The company was instructed to start testing for molds and yeasts in their products, especially those prepared in their liquid line.
 The production plant has unfortunately a persisting problem with mold growth.
 Instructions were provided to use a no-rise food contact sanitizer to eliminate this



persisting problem in the operation. Further testing for molds and yeasts in the products could assure this contamination problem is not reaching the consumers.

- Five logs were developed and training was provided to assure safety and documentation of procedures in the company (**Annex 6**).
- Closure of organic operation line was recommended to be fixed to assure compliance and segregation of organic and conventional lines.
- Refrigerators of the company currently do not undergo calibration with a referenced thermometer, thus, there is no record of the temperature of the products during storage and prior to selling to the market. It is recommended that the company labels each fridge and utilize a reference and calibrated thermometer to assure products are not time and temperature abused and kept outside the danger zone.
- It was further recommended that the company conducts calibration of their balances, pH meters, refractometer and thermometers. Some calibration record were available in the company but it was recommended to prepare a log and frequently calibrate the units to assure compliance with organic certification requirements.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Extensive mold growth in the operation. Information were provided to eliminate the condition and prevent future occurrence by use of a compliant no-rinse sanitizer in the operation and proper record-keeping of the application.

Activities on 6-7-2019:

One of the main persisting problems in the company was extensive mold growth in the liquid line. There were also visible evidence of contamination in the products and surface of the holding jars, although the company currently does not test for molds and yeasts in their product.

Currently the company paints the production area every six month to eliminate the evidence of mold growth. The company owner was informed that molds are spore forming organisms and painting only masks their presence and almost certainly they will "reappear," after each paint application. Production line of liquid foods that do not undergo pasteurization were removed from the room that



has the extensive mold growth during the assignment. Further a plan was prepared for the company to eliminate the problem by an initial intense cleaning, including manual scrubbing, of all surfaced with food grade detergent, then application of a Quaternary Ammonium Compound-based sanitizer, rinsing the area, and re-sanitizing using a 200 ppm sodium hypochlorite. It was further recommend to apply the later sanitizer weekly, in addition to proposed pre-, mid- and post-operation sanitization programs to assure elimination of the persisting problem

Recommendation(s)

-It was recommended that every food contact surface, for every product, be sanitized in addition to regular cleaning to assure compliance with regulatory requirements. A 7-page Sanitation Standard Operating Procedure was developed for the company (**Annex 7**). This and all other forms were also translated ito Spanish by local USAID officers.

-Two additional logs were developed (receiving raw ingredients) for the company to assure compliance with regulatory requirements of Food Safety Modernization Act and Organic Certification (Annex 8).

-There were an array of tools in the processing area that were not meeting the requirements for food manufacturing such untreated wooden cutting boards and tools, porous plastic, and containers with chipped enamel. Those were separated and their use were terminated in the production area. Only stainless steel tools and those that are microbiologically cleanable were recommended to be used in the company.

-To control the physical hazards in the operation, it is recommended to use proper light fixtures in the company.

-To assure consistency of the products, especially chocolate bars, it was recommended that the ingredients and toppings be measures rather than spreading an unkown amount of each ingredient for each product, this will assure the accuracy of the labels and consistency of the products. Impotence of disposable gloves use were re-emphasized. It was recommended to sanitize all food contact surfaces with sodium hypochlorite and non-food contact surfaces with Quaternary Ammonium Compound-based sanitizers.

-An example of a product formulation sheet was given to the company (Annex 9) to assist them calculate manufacturing prices and assure profitability in their operation.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Preparation of chocolate bars in Yogi Super Food.

Activities on 6-10-2019:

A description of recent progress made during the assignment were prepared as improvement required for organic certifications. The descript prepared was:

As of June 2019, Yogi's super food had implemented a series of recent food safety, good manufacturing practices, new lay-out, and record-keeping and documentation logs, and new sanitation standard operating procedures. Specifically, improvements had been made to assure highest level of food safety practices associated with the personal by incorporating a sanitizing footbath at the entrance of the processing plant and reinforcing policies for handwashing and

personal hygiene. Specific sanitation and good manufacturing practices had also been incorporated as part of the production including terminating the use of various pieces of utensils and material that were not microbiologically cleanable and were made from wood or non-food-grade plastic material. New practices is also incorporated to assure all food contact surfaces are sterilized using sodium hypochlorite solution, a no-rinse food contact surface sanitizer. Similar procedures were implemented to assure cleaning and sanitization of non-food contact surfaces specially those surfaces that had been historically associated with extensive mold growth in the company, a major persisting challenge in the operation. It is expected to eliminate extensive mold growth problem within the next several weeks by practicing the new sanitation standard operating procedures.

New procedures had also been implemented to assure segregation of organic supplies and production to assure compatibility with the organic certification requirements. A separate room is now dedicated for organic products and a separate area of the plant are dedicated to organic production to assure avoiding accidental introduction of conventional ingredients with the organic products. A series of new documentation logs had been developed as well for effective monitoring, corrective actions, verification of the best practices and standard operating procedures. Specifically a log had been develop to assure the correctness of labeling of every batch to assure every batch is checked for correct labeling of the potential allergens in the product as well as assuring the correct utilization of the USDA organic certification logo. Similar logs had been developed to monitor the pre-operation sanitation programs, temperature of coolers, pest control, and storage area inspection and cleaning, all to assure proper recordkeeping, meeting the food safety requirements for of the stakeholders, and meeting the specific requirements of the organic certification. Ownership and management of the company had recently receive training through a certification workshop conducted by a US faculty member in Antigua.

Recommendation(s)

- A new log was developed to assure labels are accurately descripting the allergen profile of the products to assure compliance with regulatory requirements of Food Safety Modernization

Act and organic certification and assure the public health safety of the stakeholders (Annex 10).

-The company currently having a consistency problem for their packing line of cocoa butter since the product arrives in 55-gallon container and currently company is melting a product partially and pomp the product into small containers for retail sale. This creates a problem since the 55-gallon container is not complete dissolved and the fatty acid profile of the product on the top portion of the container is almost certainly different than the



remaining of the container. A chamber was designed in the company to assure melting of the product completely before pumping the product into small container. Special emphasis were placed to assure the product stays below 40 °C to be considered as raw and non-heat treated commodity. This procedure is still at development stage and future volunteers could assure that the product in 55-gallon containers are fully dissolved while the temperature of the product is staying below 40 °C by conducting of additional validation studies. An alternative would be asking the supplier to send the product in small containers to assure ease and feasibility in handling them in the operation. Also a third party company was identified who could receive the large container and repack the product with Yogi Supper Food label since they have larger facility and commercial-grade equipment.

-The company owner expressed interest to potentially obtain certification in future to become a carbon neutral institution. A private industry was identified to assist the manufacturer obtain such status in future.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. A batch of Granola in Yogi Super Food.

Activities on 6-11 and 12-2019:

A hazard analysis was conducted for chocolate line of the manufacturing (Annex 11). The company owner was notified that his chocolate operation is prone to potential contamination with *Salmonella* serovars since the company does not have process control to minimize and/or eliminate the risk of the pathogen. A outbreak example of chocolate with *Salmonella* was shared with the owner:

Werber, D., Dreesman, J., Feil, F., Van Treeck, U., Fell, G., Ethelberg, S., Hauri, A.M., Roggentin, P., Prager, R., Fisher, I.S. and Behnke, S.C., 2005. International outbreak of Salmonella Oranienburg due to German chocolate. BMC infectious diseases, 5(1), p.7.

The company owner was notified that his company is prone to *S. auerues* contamination due to lack of consistent sanitization of food contact surfaces, lack of use of single-use gloves, and infrequent hand washing practices. These studies were shared with the owner:

Castro, A., Santos, C., Meireles, H., Silva, J. and Teixeira, P., 2016. Food handlers as potential sources of dissemination of virulent strains of Staphylococcus aureus in the community. Journal of Infection and Public Health, 9(2), pp.153-160.

Acco, M., Ferreira, F.S., Henriques, J.A.P. and Tondo, E.C., 2003. Identification of multiple strains of Staphylococcus aureus colonizing nasal mucosa of food handlers. Food Microbiology, 20(5), pp.489-493.

The company was advised for monitoring the water quality and safety for their production line. The company was introduced to total soluble solids measurement to assure efficacy of their reverse osmosis system and assure quality of water to be used for preparation of sanitizers.

Major concerns were also expressed for the existing apple cider vinegar procedures of the company. Currently there is no measurement of pH and no microbiological testing for assuring the safety and consistency of the products. Various stages of fermentation are simply determined currently by sensory perceptions that leads to products with potentially low consistency and microbiological safety and quality issues. Perhaps this is an area that a future volunteer could spend more time for improvement since current assignment was not extensively involved with this product. It was recommended to measure the pH of the products at various stages to assure compliance of product with food safety regulatory requirements and also determine an end-point for each stage of process/fermentation to assure safety and consistency of the product.

-Based on the recommendations that were delineated above, four main recommendations were developed for the company (Annex 12).

Activities on 6-13 and 14-2019:

Last two days of assignment I visited the Chica Beans Company. A member of Chica Beans leadership also attended to above-mentioned food safety certification and successfully completed the training. The company has a unique and admirable history and works with 21 women producers and is also run by 4 women in the operations/administration. The company is the first in Guatemala to sell directly in the United States in its category and typically deliver a product less than three weeks after roasting the beans. The company has a very generous plan to returning the profit to women producers with 10% of the profit going to the community health and education, a business model that had been featured on a University in the United States last year. The company has also future plan to expand its operations to vanilla bean production to diversify the income of the farmers working with the company.

-The company has recently renovated the roasting area with new ceiling and wall covering that is microbiologically cleanable and of high quality. However, they currently do not have a sanitation standard operating procedures in place and no pre-operational, mid-shift, and post-operation cleaning procedures. I would suggest the company adopt the information similar to information in Annex 11, to assure they maintain a sanitary condition in their operation.

-The storage area is open to outside many times of the day and there is risk of bird dropping and rodent infestation. The company was recommended to purchase a UV light kit to be able to monitor the existence of rodent contamination in the storage area on daily basis. They were also recommended to utilize receiving and storage logs, similar to those provided in this report annex to assure they have proper record-keeping and documentation in place.

-It is also further recommended that the company measures the water activity of the beans at time of receiving them and periodically during storage. They are currently using specialized bags that are validated to keep the moisture of the product unchanged for as long as one year but they do not measure the initial water activity of the product hence cannot assure inhibiting mold growth and production of mycotoxins during the storage of the beans. -The processing area does not have proper zoning for raw and roasted coffees and also the

sanitation of the containers are not documented and are conducted only when a container appears to be visually unclean. The company also does not have a plan to control of physical hazard in their final products by use of metal detection systems. Improvements in these areas were recommended and the company was referred to information delineated during the certification workshop.



-It was also recommended that company explore further adding value to their products by manufacturing k-cup style products since now a significant portion of coffee users in the U.S are consuming single-use coffee containers. Investing on measuring the acrylamide content of the coffee as affected during roasting and minimizing the production of the toxin could be also another advantageous plan for companies business since many health conscious consumers of coffee are now consider the existence/formation of this chemical during the roasting.

Photo courtesy: USAID, Partners of Americas, farmers-to-farmers office, Guatemala. Roasting of regional coffee in Chica Beans Company.

ANNEX 1



Farmer-to-Farmer Program - GT Travel Agenda





Name: Alyiar Fouladkhah Date Requested: June 2nd - 16th /2019 Trip/Event: USDA organic certification and food safety

		Time/Hour	Date	Host	City/Location	Activity	ctivity Lodging (Hotel Name, Address)	
Dej	parture time from office/home	8:00 AM	Monday, 06/03	F2F Field Office and YOGI facilities	Yogi Super Foods Office 2 / Avda del rio C17E, Colonia San Pedro el Alto, San Pedro las Huertas, Anitgua	FSPCA Course	Hotel las Camelias/Antigua	Field Office Staff /Yogi Manager
Departure time from 8:00 9:0 9:0 8:0 8:0 8:0 8:0 8:0 8:0 8:0 8:0 8:0 8	9:00am- 5:00pm	Tuesday, 06/04	Yogi Super Foods	Yogi Super Foods Office 2 / Avda del rio C17E, Colonia San Pedro el Alto, San Pedro las Huertas, Anitgua	FSPCA Course	Hotel las Camelias/Antigua	FO and YOGI staff	
		9:00am- 5:00pm	Wednesday, 06/05	Yogi Super Foods	Yogi Super Foods Office 2 / Avda del rio C17E, Colonia San Pedro el Alto, San Pedro las Huertas, Anitgua	Morning: FSPCA course Afternoon: facilities Visit and introductory meeting with Yogi staff	Hotel las Camelias/Antigua	FO and YOGI staff
		8:00am- 4:00pm	Thursday, 06/06	Yogi Super Foods	Antigua Guatemala	Visit in the factory for: USDA Organic certification diagnostic and implementation plan report + GMP diagnostic and implementation plan report	Hotel las Camelias/Antigua	FO and YOGI staff
		8:00am- 4:00pm	Friday, 06/07	Yogi Super Foods	Antigua Guatemala	HACCP plan for (this list goes in priority order, so the most we can cover the better): APPLE CIDER VINEGAR (production), Coconut Oil (filling process from bulk to finish product), KOMBUCHA (Production), Chocolate Bars (Production), GLUTEN FREE GRANOLA (Production), GOMASIO (Production), SUPERFOODS POWDERS (filling process from bulk to finish product), Snacks category (Production)	Hotel las Camelias/Antigua	FO and YOGI staff
			Saturday		6			
			Sunday				Hotel las Camelias/Antigua	
		10:30am- 6:30pm	Monday, 06/10	Yogi Super Foods	Antigua Guatemala	Continue with HACCP plan	Hotel las Camelias/Antigua	FO and YOGI staff
		9:00am- 5:00pm	Tuesday, 06/11	Yogi Super Foods	Antigua Guatemala	Continue with HACCP plan	Hotel las Camelias/Antigua	FO and YOGI staff
		10:00am- 6:00pm	Wednesday, 06/12	Yogi Super Foods	Antigua Guatemala	Continue with HACCP plan	Hotel las Camelias/Antigua	FO and YOGI staff
		8:00am- 4:00pm	Thursday, 06/13	Yogi Super Foods	Antigua Guatemala	Morning: Same as above Afternoon: audit the implementation YSF has accomplish according to the diagnostic of last Thursday about the USDA Organic certification and report the improovment are still needed to done in order to be able to receive the Certification	Hotel las Camelias/Antigua	FO and YOGI staff
h	Arrival time to ome/office from field	5:00pm	Friday, 06/14	F2F Field Office	Guatemala City	Office work (Trip report, recommendations, etc)	Hotel Biltmore	Field Office Staff
			Saturday				Hotel Biltmore	
			Sunday					

ANNEX 2



J

PARTNERS of the AMERICAS Connect • Serve • Change Lives



FORMATO PARA LISTADO DE PERSONAS CAPACITADAS								
Voluntario: Aliyar Fouluschah	_ Oficial de campo: Selvin Carvillo.							
Anfitrión: YSF .	Fecha: 3-5 junio 2019.							
Departamento: Sacatepéquez	Municipio: Antiqua Guatemala							
Comunidad: Las Huertas.	Localidad:							
Tema: Treventive Controls For	Human Food. (course)							

No.	Nombre y Apellido	Correo/Número	Firma
1	Selvin Carrillo	.4-9376647	leases
2	José Cano	55504555	-ALC
3	FLANCO BANGI	1,02,2845	m
4	Knistel Wolley	117256511	Thefulph
5	Moña Alejandra Alguijay Agrior	3098-6572	J'HAT I
0	Aleyda Ussette Serbano Vela	40402604	Cledontion
7	Josve Martinez Raque	4080-9387	Party top
8	planeto Stor 1	58776404	Joto S
9	Casto Orlando Gozmán G.	32131991	Anoth
NO.	Mauricio SALAZAR	3551 1926	and
11.	Aliyar Fouladeliah (Instructor)	(970)690-7392	Here .
12.	Otto Kiver	A613-7092	HEAL
13.	Timan is SurRad	42415995	1 Stores D



ANNEX 3



Food Safety Modernization Act Certification Preventive Control for Human Foods

Antigua, Guatemala

6-3-2019

Public Health Microbiology Laboraotry

A. Fouladkhah: Founder/Director, Public Health Microbiology Laboratory

Todays content

- Food Safety Modernization Act, Review
- Course Video from Food and Drug Administration
- Chapter 1: Introduction
- Exercise book: Chapter 1
- Chapter 2: Food Safety Plan Overview
- Exercise book: Chapter 2
- Chapter 3: GMP and Other Prerequisite Programs
- Exercise book: Chapter 3
- Chapter 4: Biological Hazards
- Exercise book: Chapter 4

Food Safety Modernization Act (FSMA)

- Signed to law in January of 2011, FSMA is the largest expansion of U.S. food safety authorities since the 1930s.
- Many sectors of agriculture and manufacturing will undergo strict regulations for the **first time in the history of the country**.
- Shifting responses from food safety problems to proactively prevent the episodes
- FSMA, a large and comprehensive legislation **broaden FDA's ability** to:
 - Mandatory recall of contaminated food products
 - Enhanced surveillance to investigate foodborne illness outbreaks
 - Established new preventive controls and food safety plans at some food processing facilities and farms
 - Enhanced FDA's traceability capacity
 - Increased inspection frequencies of high-risk food facilities (both domestic and foreign facilities)
 - Expanded authority and oversight capabilities with regard to **foreign companies**

Regulatory Landscape of Food Industry Before FSMA

Very small companies:

Exemption from federal requirements, need to follow state policies

Restaurant operations:

Exemption from federal requirements, need to follow state policies (food code)

Food Safety Inspection Service (FSIS) of USDA:

Meat, Poultry and Egg products, HACCP requirements

Food and Drug Administration:

High Risk Foods: Juices, seafood, and shell egg, HACCP requirements

Farmers and other food products:

No federal regulation

Mandated by FSMA

- Food manufacturing (processors)
- Farmers and growers (producers)
- Transportation, retailers
- Imported foods
- Third party laboratories
- Local, state, and federal agencies
- Foreign governments

Not mandated by FSMA

- FSMA does not directly address sectors under pre-existing jurisdictions. HACCP will remain the dominant regulation for:
- Meat, poultry, and egg products (USDA-FSIS)
- Juices, seafood, and shell eggs (DHHA-FDA)
- Very small producers and processors could receive exception from FSMA requirements (cottage industry).
- FSMA does not mandate GM products, antibiotic resistant organisms, organic production, and pesticide and fertilizer use.

FSMA Implementation Schedule

FSMA was signed into law on January, 2011

Regulations were supposed to be finalized within one to two years of enactment (roughly January 2012 and January 2013)

Revised implementation dates: (all drafts are currently publically available)

- **Preventative controls**: FSMA §103(a) and(c): <u>August 30, 2015</u>
- Foreign supplier verification program: FSMA §301(a): October 31, 2015
- Accreditation of third party auditors: FSMA §307): October 31, 2015
- Produce safety Rule: FSMA §105(a): October 31, 2015
- Sanitary transportation practices for food and feed: FSMA §111: March 31, 2016
- Intentional adulteration of food: FSMA §106(b): May 31, 2016.

Produce and Preventive Rules and Land-grant Institutions

- Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption (Produce Rule): Producers
- Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food (Preventive Rule): Processors
- Large producers and processors
- Small and medium size producers and processors
- Very small (hobbyists) producers and processors (local and cottage industry)
- Many of small and medium size entrepreneur will require assistance from the nations 75 land-grant institution for safe and economical access to market.

Preventive Rule: Overview

- Regulate "processors"
- Under the regulation all "facilities" have to be registered with FDA
- The rule has **two sections: Hazard Analysis and GMP**, facilities obligated to have one or both.
- Exemptions: Juice, seafood, and shell egg sectors and businesses that store agricultural comities. (differs with preventive rule)

Modified Requirements:

- Three-year average sales less than \$500K, AND
 - Direct sales to restaurants and consumers within 275 mile radius, or
 - Within states sales in 275 mile radius.

Requirements of Preventive Rule cGMP-Current Good Manufacturing Practices

- Similar to prerequisite program in HACCP
- Nearly all facilities are required to follow this section of the rule

Exemption:

(1) Businesses that store agricultural commodities

(2) Businesses that selling directly to a manufacturing facility like canning operation (vertically integrated farms)

- Sanitation
- Employee training
- Environmental control and training
- Recall contingency plan
- Allergen control
- Supplier verifications
- Sanitary transportation

Requirements of Preventive Rule Hazard Analysis and Risk-Based Preventative Controls (HARPC)

 Previous a 7-step plan for FSIS HACCP, 12-step plan for Codex HACCP, and currently 5-step plan for HARPC:

Hazard analysis

- Identification and implementation **preventive controls**.
- **Monitoring** the performance of controls.
- Developing **corrective actions** for preventative deviation.
- Verification and recordkeeping of preventative controls effectiveness
- 2.5 day workshop Preventive Control Qualified Individuals (PC QI)

Preventive Rule: Implementation and compliance dates

- Implementation date: August 30, 2015
- Compliance date:
 - Very small facility (\$2.5*m and below): 3 year
 - Small facility (less than 500 employee and does not qualified for exception): 2 years
 - "Other" facilities: <u>1 years</u>

Modified Requirements:

- Three-year average sales less than \$500K, AND
 - Direct sales to restaurants and consumers within 275 mile radius, or
 - Within states sales in 275 mile radius.

*Total annual sale; the categories differ in preventive and produce rules.

Current Courses	Human Food	Esther Baan	Oct 16, 2018	Register	EUR 1,395	Contact	Kaatsheuvel Noord- Brabant Netherlands	Dutch	Live
	Human Food	Esther Baan	Nov 19, 2018	Register	EUR 1,395	Contact	Kaatsheuvel Noord- Brabant Netherlands	Dutch	Live
	Human Food	Eric Zhang	Oct 17, 2018	Register	CAD 795	Contact	Mississauga Ontario Canada	English	Live
Our course	Human Food	J. Ron Bergamasco	Oct 23, 2018	Register	USD 750	Contact	Chicago Illinois United States	English	Live
10-11-2018 to	Human Food	J. Ron Bergamasco	Oct 16, 2018	Register	USD 750	Contact	Chicago Illinois United States	English	Live
	Human Food	Todd Diel	Nov 6, 2018	Register	USD 750	Contact	Bedford Park IL United States	English	Live
Funded by	Human Food	Bruce moon	Nov 19, 2018	Register	USD 800	Contact	Seoul Seoul Korea, Republic of		
USDA for	Human Food	Heidi Kassenborg	Dec 5, 2018	Register	USD 995	Contact	Buffalo NY United States	English	Live
no cost	Human Food	Eduardo Rondero Guerra	Nov 21, 2018	Register	USD 500	Contact	San Luis Potosi San Luis Potosi Mexico	Spanish	Live
	Human Food	Christina Astorga	Nov 13, 2018	Register	USD 795	Contact	Chicago Ridge IL United States	English	Live
	Human Food	Deborah Shapos	Dec 3, 2018	Register	USD 725	Contact	BUFFALO NY United States	English	Live
	Human Food	Kim Onett	Nov 14, 2018	Register	USD 995	Contact	Des Plaines IL United States	English	Live
	Human Food	Christina Astorga	Oct 22, 2018	Register	USD 795	Contact	Chicago Ridge IL United States	English	Live
	Human Food	Florence Gushue	Nov 27, 2018	Register	CAD 700	Contact	Learnington Ontario Canada	English	Live
	Human Food	Sonia Akbarzadeh	Oct 17, 2018	Register	USD 895	Contact	Live- Virtual Live- Virtual Canada	English	Online

ANNEX 4



CERTIFICATE OF TRAINING

is awarded to

Alejandro Santa Cruz Salazar

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #444fee1b






is awarded to

Aleyda Lissette Serrano Vela

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate # **f**7929799

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

María Alejandra Alquijay Aguilar

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #9a5eb0eb

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Carlos Orlando Guzmán Gutiérrez

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #401fca64

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

José Eduardo Cano Ozaeta

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate # 1441f8e8

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Josué Antonio Martínez Roque

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #f33e8183

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Juan Carlos Santa Cruz

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate # dd651374

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Kristel Melissa Wolley Alonzo

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #370dc745

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Marco Barbi

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #95eb3b50







is awarded to

Mauricio Salazar Vides

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #5b169700

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Otto Enrique Quin Rivera

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #84b54e33

Mandernach, Executive Director ciation of Food and Drug Officials





is awarded to

Selvin Carrillo Ramos

in recognition for having successfully completed the Food Safety Preventive Controls Alliance course:

FSPCA Preventive Controls for Human Food

delivered by Lead Instructor

Aliyar Fouladkhah completed on 06/06/2019

Robert Brackett, VP and Director Institute for Food Safety and Health



Gerald Wojtala, Executive Director International Food Protection Training Institute



Certificate #474d2c36

Mandernach, Executive Director ciation of Food and Drug Officials



ANNEX 5

Juntario: Aliyar Gyrus Fouly266hah, phi)	Oficial de campo: Selvin Carrillo
fitrión: Yogi Super Food	Fecha: 5-14 de junio/2019
epartamento: Sacatepiquez	Municipio: Antiqua Guatemala.
munidad: Las Huertas	Localidad:
ma: Food Safety	
No. Nombre y Apellido	Correo/Numero Firma
, MARCO BARBI	00502 40818845 M/
2 Mauricio Salazor	yst. antiqua Ogmail. cm 10
3 Hector Jolón 05	02 5165-2071/abectorm& gmail.com
4 Candelaria Camaci	I'vethZale@amil.com
5 LUZ Montenegro	rosymonteregrois@qualcon
> Margala Mallanal	50250212083 Mater 69M
8 Victor Conulus	mercydevalle (gmail. com sung
VICCOV (0JVLVV	Cojulon Victor a grand on the
*	



¥7

ANNEX 6

Last revised: June 6, 2019

COOLERS TEMPERATURE MONITORING LOG

Cooler Number _____ Thermometer number _____

Please see the food safety plan for overall temperature control and thermometer calibration procedures

	Thermometer	Thermometer Recorded temperature Corrective actions if		Corrective actions if	Result of corrective	Initials
Date	calibration date	AM	РМ	necessary:	actions and date accomplished	Initials
6-6-2019	2-14-2019	38°F	46°F	Double checked door was sealing properly and reminded workers to make sure door is completely sealed after leaving the cooler.	Rechecked cooler before going home and temp was back down to 40°F.	МВ

Reviewed by: _____ Title: _____ Date: _____

Last revised: June 6, 2019

FOOD CONTACT SURFACE SANITATION LOG

CLN=Cleaned SAN=Sanitized N/A= Not Applicable

Please see the Food Safety Plan for Sanitation Standard Operating Procedures

		Food	contact	t surfac	e clear:	ning ch	ecklist			
Date	Bencl	h tops	Choc aı Ses Griı	olate nd ame nder	Ser Autor fill mac	mi- matic ing hine	Pack Mac	aging hine	Corrective actions needed/Comments:	Cleaned by (initials):
	CLN	SAN	CLN	SAN	CLN	SAN	CLN	SAN		
6-6-2019	x	x	x	x	x	x			Packing machine was not cleaned since is not in operation	MB

Reviewed by: _____ Title: _____ Date: _____

Last revised: June 6, 2019

PEST/RODENT CONTROL LOG

Please see the food safety plan for *Pest/Rodent Control* procedures.

Date	Company used* or self	Type of pest	Type of control**	Location of traps	Action taken	Checked by (name)	Disposal means
6-6-2019	Self	Mice	Tin cats	Storage area, packinghouse, entrance of processing plant	Traps checked	МВ	One trap full in storage area, disposed of in dumpster

* If using a company for service, attach report or receipt of service for each of their visits. ** List type of control methods used such as exclusion, traps, poison, repellants, etc.

Reviewed by: _____ Date: _____ Title: _____ Date: _____

Last revised: June 6, 2019

STORAGE AREA INSPECTION AND CLEANING LOG

Please see the Food Safety Plan for Information about various storage facilities

Storage Area Location(s): Organic Ingredient Storage

		Cleaning List (check if completed)					
Date	Checking for segregation of organic and convention material		Inspect for pests	Check for condensation, water	Check door seals	Corrective actions needed:	Cleaned by (initials):
6-6-2019	x	x	x	x	x	Found mouse dropping in corner. Removed the dropping, inspect the trap, will monitor.	MB
						Small amount of condensation on shelves, wiped and sanitized.	

Reviewed by: _____ Title: _____ Date: _____

Last revised: June 6, 2019

TOOLS, UTENSILS, AND PACKAGING CONTAINERS SANITATION LOG

CLN=Cleaned SAN=Sanitized N/A= Not Applicable

Please see the Food Safety Plan for Sanitation Standard Operating Procedures

		Cleanin	g List (cheo	k each)			Cleaned
Date	Knives and Utensils	Large Containers	Bottles and Caps	Product Jars and Lead	Other	Treatment	by (initials):
6-6-2019	CLN / SAN	CLN	N/A	CLN / SAN	N/A	Washed with dishwashing soap, rinse with tap water, sanitized with 100 ppm chlorine solution dip for 20 seconds exposed to UV for 10 minutes	МВ

Reviewed by: _____ Date: _____ Date: _____

ANNEX 7

Last revised: June 6, 2019

SANITATION STANDARD OPERATING PROCEDURES

Characteristics of Common Food Contact Surfaces:

Surface Material	Concerns	Recommendations
Aluminum	Readily attacked by acidic and highly alkaline cleaners.	Use only soft metal-safe, moderately alkaline cleaners
Black iron or cast iron	Acid or chlorinated detergents can cause rust. Lacks strength	Not recommended in food processing. If present in drains, use moderately alkaline cleaners.
Brass, copper, mild steel	All less corrosion resistant than stainless steel.	Acidic cleaners encourage steel rusting; use moderately alkaline cleaners with corrosion inhibitors.
Concrete	Often etched by acidic products and cleaning compounds. Can crack	Concrete should be dense and acid resistant. Materials should not loosen from surface. Use alkaline cleaners.
Galvanized metals	Tend to rust leaving a white powder by-product due to zinc corrosion that could cause product adulteration.	Avoid use as food contact surface. Should not be used with acidic foods
Glass	Strong caustic cleaning compounds can etch.	Clean with moderately alkaline or neutral detergents.
Lead	Solder and flux containing more than 0.2% lead may not be used as a food contact surface	Try to eliminate use in food processing plant.
Nylon	Sensitive to acidic cleaners	Do not use acidic cleaners
Paint and sealants	Chemical leaching, flaking and peeling.	Generally, not recommended for direct contact surfaces, especially those subject to abrasion. Use only approved substances. Use moderately alkaline cleaners.
Plastics	Some stain easily. Some cannot be used at very low or high processing temperatures. May crack or cloud from prolonged exposure to strong acidic or alkaline cleaners; easily scratched.	More corrosion resistant than stainless steel; resistant to chlorine. Useful to color coordinate items for intended use (e.g., treated seeds vs. untreated seeds) and select plastics that will not deform or crack when exposed to processing conditions.
Rubber	Damaged by certain solvents. Deteriorates with constant chlorine use. Trimming boards can warp and their surface can dull knife blades.	Avoid porous or spongy types that hold water or food debris. Use alkaline cleaners
Stainless steel	Expensive, certain grades are pitted by chlorine or other oxidizers.	Best metal surfaces for food processing. Consider 300 level series. Use non-abrasive acidic and alkaline cleaners; do not use hydrochloric acid or chlorides.
Wood	Pervious to moisture and oils/fats. Softened by alkali and other caustics. Often difficult to clean.	Should not be used in food applications. Where used, clean with detergents containing surfactants. Treated woods must meet criteria for wood preservatives in 21 CFR 178.380. Limit use as food contact surface.
Fishery Produc	ts, pp. 2-8, and Ontario Ministry of Agric	culture, Food and Rural Affairs, 2006.

Yogi's Super Food Approach:

The company has recently (since June 6, 2019) adopted a new policy to eliminate every wooden and porous rubber/plastic material in the operation. All the utensils and material is intended to be made from stainless-steel, food-grade metals, and are all intended to be microbiologically

Yogi's Super Foods Last revised: June 6, 2019

cleanable in nature. The company is replacing the non-cleanable items with industrial and foodgrade utensils and material.

Sanitizer	Forms/ Description	Advantages	Disadvantages
Chlorine	Hypochlorite Chlorine gas Organic chlorine, e.g., chloramines	 Kills most types of microorganisms Less affected by hard water than some Does not form films Effective at low temperatures Relatively inexpensive Concentration determined by test strips 	 May corrode metals and weaken rubber Irritating to skin, eyes and throat Unstable, dissipates quickly Liquid chlorine loses strength in storage pH sensitive
Iodophors	Iodine dissolved in surfactant and acid	 Kills most types of microorganisms Less affected by organic matter than some Less pH sensitive than chlorine Concentration determined by test strips Solution color indicates active sanitizer 	 May stain plastics and porous materials Inactivated above 120°F (48.9°C) Reduced effectiveness at alkaline pH More expensive than hypochlorites May be unsuitable for CIP due to foaming
Quaternary Ammonium Compounds	Benzalkonium chloride and related compounds, sometimes called quats or QACs	 Non-corrosive Less affected by organic matter than some Residual antimicrobial activity if not rinsed Can be applied as foam for visual control Effective against <i>Listeria</i> <i>monocytogenes</i> Effective for odor control Concentration determined by test strips 	 Inactivated by most detergents May be ineffective against certain organisms May be inactivated by hard water Effectiveness varies with formulation Not as effective at low temperature as some May be unsuitable for CIP due to foaming
Acid-Anionic	Combination of certain surfactants and acids	 Sanitize and acid rinse in one step Very stable Less affected by organic matter than some Can be applied at high temperature Not affected by hard water 	 Effectiveness varies with microorganism More expensive than some pH sensitive (use below pH 3.0) Corrodes some metals May be unsuitable for CIP due to foaming
Peroxy Compounds continued	Acetic acid and hydrogen peroxide combine to form peroxyacetic acid	 Best against bacteria in biofilm Kills most types of microorganisms Relatively stable in use Effective at low temperatures Meets most discharge requirements Low foaming; suitable for CIP 	 More expensive than some Inactivated by some metals/ organics May corrode some metals Not as effective as some against yeast and molds

Characteristics of Common Sanitizers:

Last revised: June 6, 2019

most types of bacteria	- Inactivated by some detergents
foaming, suitable for CIP e in presence of organic r affected by hard water than	 pH sensitive (use below pH 3.5) Less effective than chlorine at low temperatures May damage non-stainless steel materials Less effective against yeasts and molds than some
most types of oorganisms ger oxidizer (sanitizer) than ine affected by organic matter some corrosive than chlorine pH sensitive than some	 Unstable and cannot be stored Potentially explosive and toxic Relatively high initial equipment cost
most types of oorganisms ger oxidizer (sanitizer) than ine and chlorine dioxide	 Unstable and cannot be stored May corrode metals and weaken rubber Potentially toxic Inactivated by organic matter (similar to chlorine) pH sensitive More expensive than most
most types of oorganisms rates irregular surfaces ble for CIP ively inexpensive	 May form films or scale on equipment Burn hazard Contact time sensitive; inappropriate for general sanitation
	ize and acid rinse in one step foaming, suitable for CIP e in presence of organic r affected by hard water than most types of oorganisms ger oxidizer (sanitizer) than ine affected by organic matter some corrosive than chlorine pH sensitive than some most types of oorganisms ger oxidizer (sanitizer) than ine and chlorine dioxide most types of oorganisms trates irregular surfaces ble for CIP ively inexpensive 000. Sanitation Control Proceed

Products, pp. 2-22 and 2-23.

Yogi's Super Food Approach:

For food contact surfaces, including utensils, packaging jars and leads, packaging bottles and caps, knives, spatula, mixing bowls, and processing equipment, the company is utilizing a sanitizer with sodium hypo chloride as active ingredient. This sanitizer will be used according to the manufacturer's instruction and the potency of the solution will be tested using the provided strips by the company. This is a sanitizer that does not require rinsing after application (7 CFR 205.605). Containers of this sanitizer will also be utilized for mid-shift sanitation of the food contact surfaces to eliminate any potential microbial introduction to the product while the production is ongoing. Finally, this sanitizer will be bi-weekly applied to surfaces prone to mold growth in the company to assure elimination of this persisting problem in the operation. Nonfood contact surfaces sanitation and filling of the newly installed footbath at the operation will be achieved by using a quaternary ammonium compound based sanitizer according to the manufacturer's recommendation. To assure the potency of the compound the water that is treated by the reverse osmosis system is recommended to be utilized. These practices are adopted since

Yogi's Super Foods Last revised: June 6, 2019

June 6, 2019 to assure compliance with regulatory requirement of organic certification and preventive control for human foods rule of the U.S. Food Safety Modernization Act.

Responsible Employees:

Who has overall responsibility? The Plant Manager is responsible for activities related to implementing and maintaining the SSOP.

What must be done to implement and maintain the SSOP? Implementing and maintaining the SSOP involves

- revising the SSOP as needed,
- doing the daily monitoring of pre-operational and operational SSOP procedures,
- recording the findings of monitoring,
- performing or assigning any corrective actions necessary, and
- documenting the corrective actions.

Can SSOP responsibilities be delegated? The plant manager may assign responsibility for training or other specific SSOP duties (including monitoring) to other employees.

Pre-Operational Sanitation

What is our general procedure for sanitation of food-contact surfaces?

All equipment and other surfaces that could contact food or ingredients shall be <u>cleaned</u> and sanitized at the end of the shift in which it was used.

- 1. Disassemble the equipment. Place the parts in the designated tubs, racks, etc. (Simple equipment and hand tools are cleaned and sanitized in the same manner, but they do not require disassembly and reassembly.)
- 2. Physically remove product debris by hand or with tools such as scrapers.
- 3. Observe equipment for missing parts or parts/surfaces that are worn to the extent that debris will accumulate and cause product contamination. Replace or repair parts/surfaces and document what was done in the Corrective Action Log.
- 4. Rinse equipment parts with warm potable water to remove remaining debris. Note: a portability certificate for water from municipal water, or a satisfactory well test report (done at least every 6 months) will be available to prove that the water supply is potable.
- 5. Apply an approved cleaner to parts and clean according to manufacturers' directions. Note that it is recommended to clean floors first and then clean equipment from top to bottom.
- 6. Rinse the equipment parts with potable water.
- 7. Sanitize equipment with an approved sanitizer (Sodium Hypochlorite based sanitizer) that is mixed and used according to the manufacturers' directions. This is a no rinse sanitizer and there is no need to rinse the final product with water again.
- 8. Check and reassemble the equipment. Note that some equipment surfaces could be sprayed with white oil (to prevent rusting) before reassembly.

Last revised: June 6, 2019

9. All cleaning and sanitizing chemicals shall be properly labeled and stored separately from food and processing areas.

Note that it is recommended to clean floors first and then clean equipment from top to bottom.

How do we monitor the sanitation of food-contact surfaces?

The Plant Manager will inspect equipment and other food-contact surfaces before the start of production each workday to monitor the effectiveness of cleaning and sanitizing. The Plant Manager will normally rely on appearance, odor, and feel of food contact surfaces (**an** "**organoleptic inspection**"). Any necessary corrective actions should be performed and documented in the Corrective Action Log. The corrective actions taken must prevent direct product contamination or adulteration. If new inspection procedures are adopted, the SSOP will be modified accordingly, signed, and dated.

What is our general procedure for sanitation of surfaces that might have indirect contact with our products?

Although the SSOP regulations do not explicitly address potential indirect food-contact surfaces such as floors, walls, and ceilings, these surfaces can be an important source of microbial contaminants. We regularly perform the following steps to maintain sanitary conditions.

- 1. Cleaning Procedures.
 - a. Sweep up debris and discard it.
 - b. Rinse surfaces with potable water.
 - c. Clean surfaces with an approved cleaner, according to manufacturer's directions.
 - d. Rinse surfaces with potable water.
- 2. Cleaning Frequency: Clean processing area floors and walls at the end of each production day. Clean ceilings at least once a week, and more often if needed.
- 3. If necessary, clean the cooler units, walls, and ceilings. Shield or remove product before cleaning to prevent it from being splashed. Follow the Cleaning Procedures described in step 1.
- 4. If cooler unit shelves and racks are in need of cleaning, remove product and clean using the Cleaning Procedures described in step 1.
- 5. At least once every three months, clean the storage area and equipment that do not touch product (carts, floors, walls, and ceiling) using the Cleaning Procedures described in step 1.
- 6. Pest control is done by a commercial applicator. The commercial applicator will provide a record of his/her inspections, findings, and actions taken. These records will be kept on file. The plant manager will monitor plant entryways on a daily basis during production to assure that insects and rodents cannot enter the plant. Rodent traps will be monitored daily to ensure that they are properly placed. All pest control chemicals shall be properly labeled and stored separately from food/processing areas.



How do we monitor the sanitation of potential indirect food-contact surfaces?

The Plant Manager will inspect potential indirect food-contact surfaces before the start of production each workday. The Plant Manager will normally rely on appearance, odor, and feel of indirect food contact surfaces (an "organoleptic inspection"). Results of the inspection will be recorded. Any necessary corrective actions should be performed and documented in the Corrective Action Log. The corrective actions taken must prevent direct product contamination or adulteration. If new inspection procedures are adopted, the SSOP will be modified accordingly, signed, and dated.

Operational Sanitation:

The objective of our operational sanitation program is to prevent contamination of ingredients and other food products resulting from employee actions throughout processing.

What sanitary practices must be followed by all employees?

- 1. No person with illness, or open/infected wounds is allowed to handle foods or food-contact surfaces.
- 2. All employees must begin their shift wearing clean garments. Raw product processing employees must wear hair covers and change or clean/sanitize (or replace) outer garments when they become soiled. Ready-To-Eat (RTE) product processing employees must wear hair covers and single-use disposable gloves, and maintain the cleanliness of all outer garments.
- 3. Employees must wash hands properly after using the bathroom or handling any objects that may contaminate products, and before putting on disposable gloves.
- 4. Employees may not use tobacco, eat, or drink in production areas.
- 5. Employees may not wear jewelry (other than secured wedding bands) or cosmetic items that could contaminate product.
- 6. Food, beverages, and medications must be stored in designated employee locker or storage areas.
- 7. Hand wash facilities and toilets must be kept functioning correctly and properly supplied.

What sanitary practices must be specifically followed during production?

All manufacturing practices will be performed under sanitary conditions and in a manner to prevent contamination of the carcass.

- a. Clean hands, arms, gloves, aprons, boots, etc., as often as necessary during the manufacturing procedures.
- b. Clean and then sanitize (with 180°F water or sodium hypochlorite-based sanitizer), knives and other hand tools, spatulas, and chocolate trays, and other equipment, as often as necessary during the manufacturing to prevent cross-contamination and cross-contact.

- c. Before using the any tools or utensil, rinse it to remove food residue particles, then sanitize it using 180° F water or sodium hypochlorite-based sanitizer.
- d. Keep your hands, arms, clothes, aprons, boots and knives clean during the manufacturing. If contamination occurs, step away from the production area to clean apron, boots, hands, and utensils. Sanitize all utensils after cleaning. It may also be necessary to clean hands and arms with soap and water.
- e. If you see any edible product that is contaminated remove it by trimming with a knife. The knife you use must be then be cleaned and sanitized before it is used again on edible product.
- f. Clean and sanitize (using a sodium hypochlorite-based sanitizer or 180°F water) all tools and utensils after it is used on a suspect product or when contamination occurs.

How do we monitor and record Operational Sanitation practices during slaughter?

- a. The Processing Manager is responsible for ensuring that employee hygiene practices, sanitary conditions and cleaning procedures are maintained during the production day. <u>Make a visual observation at least once between each break in work (start, break, lunch, etc.)</u>. The corrective actions taken must prevent direct product contamination or adulteration. Indicate on the Corrective Action Log the disposition of any product that may have been processed when sanitary procedures were not being followed.
- b. When equipment is visibly contaminated, remove the contaminants and sanitize the affected equipment before re-starting production. Inspect the products to determine if they were contaminated or adulterated. Try to determine the cause of the contamination and take corrective action. This may require adjusting equipment, retraining employees, temporarily stopping the production process, etc. You also may have to notify the employee(s) involved and review personal hygiene equipment adjustment, and sanitary handling procedures. Record corrective actions on the Corrective Actions form; remember to initial and date the records.

Adopted from a USDA inspected processing plant from publically available material

ANNEX 8

Last revised: June 6, 2019

RECEIVING PACKAGING AND INGREDIENTS LOG

- All packaging materials and ingredients will be visually inspected. Unacceptable conditions will be reported ٠ to management and documented.
- If containers (e.g., boxes, drums) are damaged, they need to be checked and affected product has to be . identified, controlled, and accepted or rejected.
- If containers (e.g., boxes, drums) are contaminated with any substance (e.g., oil, soil, bird dropping), they need to be checked and affected product has to be identified, controlled, and accepted or rejected.

Please see food safety plan for receiving packaging and ingredients procedures

Date	Type of Material being received	Is product organically produced or is conventional	Supplier Certification included with the product	Corrective actions if necessary:	Result of corrective actions and date accomplished	Initials
6-6- 2019	Raw cocoa	conventional	none	Packaging of the cocoa was damaged and product was exposed to potential contamination. Management was notified.	The batch was rejected and supplier was notified	МВ

Last revised: June 6, 2019

RECEIVING PACKAGING AND INGREDIENTS LOG

- *†Check the temperature of a product from the middle of the pallet by using the laser thermometer.* Take the temperature of the truck using the laser thermometer. Temperatures must be $\leq 4^{\circ}$ C.
- *S- Satisfactory, U-Unsatisfactory (Inform PC QI; May compromise food safety, place on Hold). ٠

Please see food safety plan for receiving packaging and ingredients procedures

	Description (Pleas copy of the Rece	se attach a iving Slip)			†Temperature °C (If applicable)		Condit (S/l	ion of J)*		
Date	Ingredients	Packaging	Supplier and/or Carrier	PO#	Product	Truck	Product	Truck	Receiver Initial	Comments/ Action Taken
6-6-2019	Cocoa powder	n/a			S	n/a	S	S	MB	Product accepted

Reviewed by: _____ Title: _____

ANNEX 9

PRODUCT	Taco Seasoning 1	014		
DATE CREATED				
QUANTITY	1	Pounds	453.59g = 1lb	0.000 spec grav
	453.59	Grams	_	0 lbs per gal

Cost Updated on:

Ingredients	RM #/ Supplier #	Amount	%	Amount #	Amount a	cost in use	Cost per lb
Chili Powder Light		23.83	18.88	0.1888	85.63	\$0.31	\$1.64
CBI Low Sodium Salt- Umami type		41.28	32.70	0.3270	148.33	\$0.25	\$0.77
Corn Masa		12.67	10.04	0.1004	45.53	\$0.04	\$0.42
Ground Cumin		9.48	7.51	0.0751	34.07	\$0.13	\$1.74
Dextrose		9.48	7.51	0.0751	34.07	\$0.03	\$0.41
Paprika		9.48	7.51	0.0751	34.07	\$0.11	\$1.44
Garlic Powder		6.45	5.11	0.0511	23.18	\$0.04	\$0.74
Onion Powder		6.45	5.11	0.0511	23.18	\$0.07	\$1.46
Cayenne Pepper		3.37	2.67	0.0267	12.11	\$0.03	\$1.30
Citric Acid		1.62	1.28	0.0128	5.82	\$0.01	\$1.01
Ground Oregano		1.62	1.28	0.0128	5.82	\$0.03	\$2.40
ZeoFree 80		0.5	0.40	0.0040	1.80	\$0.01	\$1.50
		0.00	0.00	0.0000	0.00	\$0.00	
		0.00	0.00	0.0000	0.00	\$0.00	
		0.00	0.00	0.0000	0.00	\$0.00	
		0.00	0.00	0.0000	0.00	\$0.00	
		0.00	0.00	0.0000	0.00	\$0.00	
		0.00	0.00	0.0000	0.00	\$0.00	

126.23	100	1	453.59	\$1.07
				÷ · · • ·

Notes/Directions:

Sample pack size & mix up directions:

ANNEX 10

Last revised: June 10, 2019

ALLERGEN CHECK AND ORGANIC/CONVENTIONAL VERIFICATION LOG

- Hazard: Undeclared Allergens and Mislabeling of Organic Products
- Parameters: All finished product labels must declare the allergens present in the formula and correct mode of production
- Corrective Action: If label is incorrect, segregate product, inspect back to the last good check, relabel product; identify root cause and conduct training as needed to prevent recurrence

Please see food safety plan for additional information for allergen check and organic/conventional verification procedures

Date	Time	Is product organically produced or is conventional	Product	Lot Number	Proper Label Applied? (Yes or No)	Nature of Problem,	Corrective actions if necessary:	Result of corrective actions and date accomplished	Initials
6-6- 2019	11:30 am	conventional	Apple Cider Vinegar	2019-72	Νο	Missing organic certification logo	PC QI notified, product sent for relabeling	Corrected labels incorporated	MB

Reviewed by: _____ Title: _____ Date: _____

ANNEX 11

Yogi Super Foods Last revised: June 11, 2019

HAZARD ANALYSIS FORM FOR FOOD SAFETY PLAN

Hazard Analysis			Product: Chocolate bars						
Plant Name Yogi Super Fo		bod		Date Issued		6-11-2019			
Address Antigua, Guate		emala		Supersedes		6-11-2019			
(1)(2)Ingredient/ Processing StepIdentify potential food safety hazards introduced, controlled or enhanced at this step		(3) Do any potential food safety hazards require a preventive control?		(4) Justify your decision for column 3	(5) What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard? Process including CCPs, Allergen, Sanitation, Supply-chain, other preventive control	(6) Is the preventive control applied at this step			
			YES	NO			YES	NO	
(1) Receiving	B	None		Х		n/a	n/a	n/a	
packaging material: Foil and outer paper packaging	С	Allergan cross-contact		X	Working with reputable suppliers and our existing good manufacturin g practices will assure safety of the product from this potential chemical hazard.	n/a	n/a	n/a	
	Р	Extraneous material (plastic, wood, and metal chips)		X	Receiving procedures include careful visual inspection and a good manufacturin g practice log will ensure control of	n/a	n/a	n/a	
HAZA	RD	ANALYS	SIS F	ORN	1 FOR FO	OD SAFETY PLA	.N		
--	----	--	-------	-----	--	---	----	---	
					this potential physical hazard.				
(2) Receiving of raw ingredients: nuts and cocoa nib	B	Non- typhoidal <i>Salmonella</i> serovars, <i>Staphylococc</i> <i>us aureus</i> , <i>Listeria</i> <i>monocytogen</i> <i>es</i>	X		There has been examples of outbreak of Chocolate associated with <i>Salmonella</i> serovars (BMC Infectious Diseases 2005, 5:7)	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan and food safety management system prior to purchasing material from them.	X		
	С	Direct and Indirect additives	X		Various suppliers could have direct and indirect additives in their products	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan prior to purchasing material from them.	X		
	P	Metal contaminatio ns	X		Extraneous physical material including metals could be present in small quantities	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan prior to purchasing material from them.	X		
(3) Receiving of raw ingredients: Cocoa butter and coconut oil	B	None		X	Absence of water in the product does not sustain any microbial life	n/a		X	
	C	Direct and Indirect Additives	X		Fat soluble direct and indirect additives might be	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan	X		

HAZARD ANALYSIS FORM FOR FOOD SAFETY PLAN

	-	I	1	1	1		-	
					present in the			
					product			
	P	Extraneous		Х	Visual	n/a		Х
		material			inspection is			
					carried out,			
					never had			
					physical			
					contaminatio			
					n concern			
					with our oils			
					supplier			
(4) Receiving of raw	B	Non-	Х		These	Supplier-chain Control:	Х	
ingredients: Dried		typhoidal			pathogens	Suppliers are expected to		
Foods (dates, goji		Salmonella			are typically	provide certification of		
berry, mulberry)		serovars,			associated	analysis, we also check		
		Staphylococc			with raw	their food safety plan		
		us aureus,			agricultural			
		Listeria			commodities			
		monocytogen						
		es, Shiga						
		toxin-						
		producing						
		Escherichia						
		coli						
	С	Direct and	Х		Products	Supplier-chain Control:	X	
	_	Indirect			could be	Suppliers are expected to		
		Additives			contaminated	provide certification of		
					with	analysis, we also check		
					agricultural	their food safety plan		
					pesticides			
					and			
					undeclared			
					preservatives			
					like sulphate			
	Р	Extraneous	X		Physical	Supplier-chain Control:	X	
	-	material			hazards	Suppliers are expected to		
		material			including	provide certification of		
					metals and	analysis we also check		
					wood chins	their food safety plan		
					might he	alon 1000 safety plan		
					nresent the			
					raw			
					ingradiants			
					ingredients			

HAZA	RD	ANALYS	IS F	ORM	I FOR FO	OD SAFETY PLA	N	
(5) Receiving of raw ingredients: salt and "super food," seasoning blend	В	Non- typhoidal <i>Salmonella</i> serovars presence in dry seasoning	X		Although Non- typhoidal <i>Salmonella</i> serovars cannot multiply in low moisture environment but could survive for several months	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan, we also intend to conduct yearly on-site audit	X	
	С	Direct and indirect additives, heavy metals	X		Water and fat soluble direct and indirect additives might be present in the product	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan, we also intend to conduct yearly on-site audit	X	
	Р	Metals and wooden chips	X		Products could be contaminated with the heavy metals and physical hazards such as metal or wood chips	Supplier-chain Control: Suppliers are expected to provide certification of analysis, we also check their food safety plan, we also intend to conduct yearly on-site audit	X	
(6) Storage of raw	B	None		Х	1	n/a	n/a	n/a
material prior to processing	С	Mold growth and consequently growth of mycotoxins such as Aflatoxin		X	We never had this concern in the operation since we purchase the ingredients in small batch and store them for short amount of time	n/a	n/a	n/a
	P	None		Х		n/a	n/a	n/a

HAZA	RD	ANALYS	SIS F	ORN	1 FOR FO	OD SAFETY PLA	N	
(7) Grinding of cocoa nib for preparing chocolate liquor	B	Introduction of <i>S. aureus</i> from workers hand to products	X		<i>S. aureus</i> is a very prevalent pathogen on workers hands and nasal cavities.	Process Control- Relying on handwashing and personal hygiene practices to avoid this microbial concern. Sanitation Preventive Control- Pre-operation and mid- shift sanitation of food contact surfaces with sodium hypochlorite. hypochlorite	X	
	C	Introduction of sanitizers and other cleaning hazards to the formulation		X	We have separate storage area for chemicals and cleaning material and GMP practices to avoid this problem	n/a	n/a	n/a
	Р	Introduction of metal and plastic chips to the formulation		X	We have GMP practices to avoid this problem	n/a	n/a	n/a
(8) Tempering the chocolate	B	Introduction of <i>S. aureus</i> from workers hand to products	X		<i>S. aureus</i> is a very prevalent pathogen on workers hands and nasal cavities.			
	C	Introduction of sanitizers and other cleaning hazards to the formulation		X	We have separate storage area for chemicals and cleaning material and GMP practices to	n/a	n/a	n/a

HAZARD ANALYSIS FORM FOR FOOD SAFETY PLAN

	-		-	.	I			
					avoid this			
					problem			
	P	Introduction		Х	We have	n/a	n/a	n/a
		of metal and			GMP			
		plastic chips			practices to			
		to the			avoid this			
		formulation			problem			
(9) Molding the	B	Introduction	Х		S. aureus is a	Process Control-		
chocolate		of S. aureus			very	Relying on handwashing		
		from			prevalent	and personal hygiene	Х	
		workers			pathogen on	practices to avoid this		
		hand to			workers	microbial concern.		
		products;			hands and	Sanitation Preventive		
		Introduction			nasal	Control-		
		of Listeria			cavities. L.	Pre-operation and mid-		
		monocytogen			monocytogen	shift sanitation of food		
		es from the			es is	contact surfaces with		
		fridge and			commonly	sodium hypochlorite.		
		processing			associated			
		environment			with food			
		to the			contact			
		product			surfaces and			
					ubiquitous in			
					nature.			
	С	Introduction		X	We have	n/a	n/a	n/a
		of sanitizers			separate			
		and other			storage area			
		cleaning			for chemicals			
		hazards to			and cleaning			
		the			material and			
		formulation			GMP			
					practices to			
					avoid this			
					problem			
	Р	Introduction		X	We have	n/a	n/a	n/a
		of metal and			GMP			
		plastic chips			practices to			
		to the			avoid this			
		formulation			problem			
(10) Adding the seeds	B	Introduction	X		S. aureus is a	Process Control-		
and dried fruits		of S. aureus			very	Relying on handwashing		
		from			prevalent	and personal hygiene		
		workers			pathogen on	practices to avoid this		
		hand to			workers	microbial concern.		

HAZA	RD	ANALYS	IS F	ORM	1 FOR FO	OD SAFETY PLA	.N	
		products; Introduction of Listeria monocytoge nes from the fridge environment to the product			hands and nasal cavities. L. monocytogen es is commonly associated with food contact surfaces and ubiquitous in nature.	Sanitation Preventive Control- Pre-operation and mid- shift sanitation of food contact surfaces and the fridge with sodium hypochlorite.		
	С	Introduction of sanitizers and other cleaning hazards to the formulation		х	We have separate storage area for chemicals and cleaning material and GMP practices to avoid this problem	n/a	n/a	n/a
	Р	Introduction of metal and plastic chips to the formulation		X	We have GMP practices to avoid this problem	n/a	n/a	n/a
(11) Refrigerated storage prior to packaging	В	Introduction of <i>Listeria</i> <i>monocytogen</i> <i>es</i> from molding trays and the refrigerator environment to the product	X		<i>Listeria</i> <i>monocytogen</i> <i>es</i> is ubiquitous in nature and could survive and proliferate in refrigerated environment	Sanitation Preventive Control- Pre-operation and mid- shift sanitation of food contact surfaces including the molding trays and the fridge with sodium hypochlorite, assuring the potency of the sanitizer using the test strips provided by the manufacturer.	X	
	С	none		X	No chemical material is stored in the	n/a	n/a	n/a

HAZARD ANALYSIS FORM FOR FOOD SAFETY PLAN

		I			I			
					refrigerated			
	P	Introduction of physical hazards such as plastic and metal chips from the operation		X	Our existing good manufacturin g practices are assuring the safety of the product from physical hazards, our product does not have history of such concern	n/a	n/a	n/a
(12) Manual Packaging	B	Introduction of <i>S. aureus</i> from the workers hand to the product. Introduction of <i>Listeria</i> <i>monocytogen</i> <i>es</i> from the processing area and food contact surfaces.	X		Both pathogens are epidemiologi cally associated with workers hand and production facilities.	Sanitation Preventive Control- Pre-operation and mid- shift sanitization of all food contact surfaces included the molding trays. Process Control- Personal hygiene practices including use of single use gloves and frequent and correct handwashing to assure elimination of <i>S. aureus</i> from the product.	X	
	С	Accidental introduction of cleaning and sanitizing material to the product		X	Our god manufacturin g practices assures segregation of cleaning and sanitizing chemicals from processing operation. Out food	n/a	n/a	n/a

HAZ	ZARD	ANALYS	IS F	ORN	1 FOR FO	OD SAFETY PLA	.N	
					contact sanitizer is a non-rinse sanitizer that does not pose a residual problem for the product and food contact surfaces			
	P	Introduction of metal (foil) or plastic chips during packaging	X		Our existing good manufacturin g practices and employee training assures control of his physical hazard, our product never had history of such problem.	n/a	n/a	n/a
(13) Storage of final Products	B	None		X	Product packaging is secure and non- permeable for introduction of any biological hazards during storage	n/a	n/a	n/a
	С	None		Х	Product packaging is secure and non- permeable	n/a	n/a	n/a

HAZA	RD	ANALYS	IS F	ORM	1 FOR FO	OD SAFETY PLA	. N	
					for introduction of any chemical hazard during storage			
	Р	None		X	Product packaging is secure and non- permeable for introduction of any physical hazard during storage	n/a	n/a	n/a
(14) Shipping the final products	В	None		X	Product packaging is secure and non- permeable for introduction of any biological hazards during transportatio n	n/a	n/a	n/a
	С	None		X	Product packaging is secure and non- permeable for introduction of any chemical hazard during	n/a	n/a	n/a

HAZA	RD	ANALYS	IS F	ORM	1 FOR FO	OD SAFETY PLA	. N	
					transportatio			
					n			
	Р	None		Х	Product	n/a	n/a	n/a
					packaging is			
					secure and			
					non-			
					permeable			
					for			
					introduction			
					of any			
					physical			
					hazard			
					during			
					transportatio			
					n			

B= Biological hazards, C= Chemical Hazards, P= Physical Hazards

ANNEX 12



Partners Farmer-to-Farmer (F2F) Program – Recommendations Form Guidelines John Ogonowski and Doug Bereuter Farmer-to-Farmer Program Volunteer Abbreviated Recommendations Form Expanded Recommendation will be provided with Final Trip Report

Name of Volunteer: Aliyar Fouladkhah, PhD, MPH, CFS, CPH- Assistant Professor

Country of Service: Antigua, Guatemala Dates of Trip: June 2 to 16, 2019

# of Persons <i>Formally</i> Trained ¹ – male:	13	# of Persons Assisted in any way ² – male:	13
# of Persons <i>Formally</i> Trained – female:	7	# of Persons Assisted in any way – female:	7
# of Persons <i>Formally</i> Trained – total:	20	# of Persons Assisted in any way – total:	20

Recommendation	Category*	Person/group/organization
Implementation of the provided Sanitation Standard Operating Procedures to assure microbiological safety of products and sanitation of food contact and non-food contact surfaces and eliminating the extensive and persisting mold growth in the production area.	Economic, Organization, environmental	Yogi Super Food
Further developing and incorporation of Hazard Analysis and Risk-Based Preventive Controls-based food safety plan based on the information provided during the two day workshop to assure development of a food safety culture in the company and a validated and verifiable food safety management system in the operation.	Economic, Organization, environmental	Yogi Super Food
Incorporating the 7 safety and quality logs developed for the company and improving the Good Manufacturing Practices based on provided recommendation in the report including major changes in personal hygiene (use of gloves, sanitizing water bath, more frequent hand washing, and use of suggested non-rinse food contact surface sanitizer).	Economic, Organization, environmental	Yogi Super Food
Implementing the provided good manufacturing practice and recommendations delineated in the report for meeting the requirement of organic certification and minimizing the risk of allergen cross-contact and pathogen and spoilage organisms cross-contamination and eliminating the risk of undeclared allergen in the products.	Economic, Organization, environmental	Yogi Super Food

¹ **Persons Formally Trained:** number of persons who received technical/instructional training *in a "formal" setting:* classroom, workshop, institute/university or on-the-job setting with specific learning objectives and outcomes

² **Persons Assisted:** number of persons who receive **any type** of face-to-face or hands-on technical assistance, training or advice from the F2F volunteer, formal or informal, in any setting. (includes people counted as formally trained plus all others)