Conference for Food Protection
Executive Board Meeting Committee Report

COMMITTEE NAME: **Time as a Public Health Control**

COUNCIL (I, II, or III): **III**

DATE OF REPORT: **13 JULY 2013**

SUBMITTED BY: **Time as a Public Health Control** Committee
by Sue Vergne and Charles Otto, Co-Chairs

COMMITTEE CHARGE:

Issue #: 2012 III-026

Charge: The conference recommends:

That a committee be formed to identify safe times at which foods can be held without temperature control and without cooling to 41°F, supported by scientific information (e.g., challenge studies, modeling tools).

The committee's charge shall include, but not be limited to, the following foods and food categories:

- Cut tomatoes
- Cut cantaloupe
- Chopped leafy greens
- Chopped garlic and oil
- Opened canned tuna
- Opened canned beans (e.g., green beans, chickpeas, black beans)
- Hummus
- Opened canned product used as sole item
- Opened canned product used as an ingredient in a formulation

The committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document.

The committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

COMMITTEE'S REQUESTED ACTION FOR BOARD (If Applicable**):** Review and accept this report. Provide timely guidance to the committee on final report format and issue preparation guidance.

PROGRESS REPORT / COMMITTEE ACTIVITIES WITH ACTIVITY DATES:

Summary	
Date	**Activity**
08/17/2012	Email notifying committee members of their appointment by Conference Board; provided charge and solicited input on date for first meeting
09/06/2012	Setup committee collaboration SharePoint site
09/07/2012	First committee web meeting
09/26/2012	Communicated with Dean Rich Linton on 2002 Conference Committee that he chaired that created the current Time as a Public Health Control guidance as a part of the Conference Issue 2004-III-08, Time as A Public Health Control
09/28/2012	Disseminated first committee web meeting draft minutes and agenda for second committee web meeting
10/05/2012	Second committee web meeting
11/27/2012	Disseminated second committee web meeting draft minutes and agenda for third committee web meeting
11/30/2012	Third committee web meeting
11/30/2012	Disseminated third web meeting recording link to committee members
02/26/2013	Disseminated third committee web meeting draft minutes and agenda for fourth committee web meeting
03/19/2013	Fourth committee web meeting
04/03/2013	Disseminated fourth committee web meeting draft minutes and agenda for fifth committee web meeting
04/08/2013	Submitted Conference Board Report to Council III Chair and Co-Chair (Approved by Board May 2013)
04/22/2013	Fifth committee web meeting
05/27/2013	Disseminated fifth committee web meeting draft minutes and final agenda for sixth committee web meeting
05/28/2013	Sixth committee web meeting
06/05/2013	Disseminated sixth web meeting recording link to committee members, completed information collection forms discussed and sixth meeting date poll
06/18/2013	Disseminated sixth committee web meeting draft minutes and final agenda for seventh committee web meeting
06/19/2013	Seventh committee web meeting (*note quorum not reached but preliminary issue discussions held*)
07/02/2013	Disseminated seventh committee web meeting draft minutes, corrected sixth web meeting draft minutes and poll for possible eighth web meeting dates
07/10/2013	Selected and communicated eight web meeting date (07/30/2013) and agenda and draft Board Report for comment
07/13/2013	Submitted Conference Board Report to Council III Chair and Co-Chair
	See following pages for detailed committee meeting minutes, subsequent to April 2013 board report; Note that the draft fourth meeting (March 19, 2013) minutes, previously provided as a were accepted without change.

CFP Council lll Time as a Public Health Control Committee Meeting 05 Minutes

April 22, 2013 – 1:00 – 2:30 PM EDT

1. Agenda Review

2. Roll Call:

Charles Otto (Co-Chair)	X	Gina Nicholson	X
Sue Vergne (Co-Chair)	X	Vito Palazzolo	
Henry Blade	X	Sue Tyjewski	
Bob Brown	X	Kenneth Watt (Ken)	X
Deborah Carney (Deb)		Lisa Weddig	X
Hector Dela Cruz		George Zameska	
Amanda Douglas	X	Girvin Liggans (FDA Consultant)	X
Bob Jue		Donna Wanucha (FDA Consultant)	X
Tim Jenkins	X	Don Schaffner (Science Consultant)	X
Becky Krzyzanowski	X		
Guests: None			

3. Review Committee Charge

The Conference recommends:

That a committee be formed to identify safe times at which foods can be held without temperature control and without cooling to 41°F, supported by scientific information (e.g., challenge studies, modeling tools).

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The committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document. The committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

4. Meeting Note Taker

Charles Otto volunteered to record the notes and prepare the draft minutes for this meeting.

5. Review / Approve Minutes – 03/19/2013

Amanda Douglas and Tim Jenkins served as the recorders for this meeting and were recognized for their diligent work on behalf of the committee. The minutes were approved as disseminated.

The web meeting recording of the meeting is available at:

Direct Viewing Link: **View Recording**

Alternate Logon Information:

Subject:	CFPIII Time As A Public Health Control - Meeting 04
Recording URL:	https://www.livemeeting.com/cc/cdc/view
Recording ID:	QZ34S2h
Attendee Key:	2013-03-19-A

Notes:

Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.

Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

6. SharePoint Collaboration Site Update

Charles Otto will prepare a PPT to provide to better assist the members with log-on and use of the Committee's SharePoint Collaboration Site. The new materials and references will also be added to the site before the next meeting.

7. Committee Discussion – Products and Commodities

- Cantaloupe – Bob Jue & Charles Otto

The following committee data chart was reviewed by committee members:

Cut Cantaloupe

Group Members:	Bob Jue & Charles Otto
Examples & Description:	Sliced, chopped, diced cantaloupes

pH	Water Activity	Product Pathogens of concern	Contamination Pathogens of concern	Outbreak Information/data
6.1 - 6.6	0.991 - 0.970	*Listeria monocytogenes*; Salmonella spp.; *E. coli O157:H7;* Norovirus*; Shigella*	All human pathogens and environmental contaminates from improper retail processing of ready to eat foods.	See Chart Below. Notes: *Italicized line listings* had other products in addition to cantaloupe that were served (ie. Multiple fresh fruit salads that were also reported. Multistate outbreaks where private homes were listed usually involved a source problem that often were sold by retail stores.

Year	Location	Organism	Where	Ill	Hospital	Died
2012	Multistate	Salmonella	Private Home	261	94	3
2011	Multistate	*Listeria monocytogenes*	Private Home	147	143	33
2011	*Georgia*	Norovirus	*Banquet Facility*	*22*	*0*	*0*
2011	Multistate	Salmonella		20	3	0
2011	Multistate	Salmonella		25	4	0
2011	Multistate	Salmonella	Private Home	20		
2008	*Colorado*	*E. coli*	*Private home*	*5*	*3*	*0*
2008	California	Norovirus	Restaurant - other or unknown type	23	0	0
2008	Multistate	Salmonella		10		
2008	*Colorado*	Salmonella	*Private home*	*3*	*1*	*0*
2007	*Michigan*		*Banquet facility*	*8*	*0*	*0*
2007	Multistate	Salmonella	Hospital; Private home; Restaurant - other or unknown type	53	17	0
2007	*New Jersey*	Salmonella	*Restaurant - other or unknown type*	*30*	*5*	*0*

	2005	*Utah*	Salmonella	*Private home*	*126*	*15*	*0*
	2005	*Colorado*	Salmonella	*Unknown or undetermined*	*24*	*7*	*1*
	2004	*Kansas*	Norovirus	*Other*	*100*	*1*	*0*
	2004	*California*	Norovirus	*Other*	*30*	*0*	*0*
	2003	*Multistate*	Salmonella	*Day care center; Private home*	*58*	*15*	
	2002	Multistate	Salmonella	Nursing home, assisted living facility, home care; Private home	26		
	2002	*Washington*	Salmonella	*Church, temple, etc*	*29*		
	2001	*Washington*		*Restaurant - other or unknown type*	*4*	*0*	*0*
	2001	*Kansas*	Norovirus	*Restaurant - other or unknown type*	*36*	*0*	*0*
	2001	*Minnesota*	Norovirus	*Workplace, not cafeteria*	*42*	*0*	*0*
	2001	Oregon	Salmonella	Nursing home, assisted living facility, home care; Restaurant - other or unknown type	2	0	0
	2001	Multistate	Salmonella	Private home	50	9	2
	2000	*Minnesota*	Norovirus	*Workplace, not cafeteria*	*33*	*0*	*0*
	2000	Multistate	Salmonella	Nursing home, assisted living facility, home care; Private home; Restaurant - other or unknown type; School	46	11	0
	1999	Minnesota	Norovirus	Workplace, not cafeteria	5	0	0
	1999	*Iowa*	Norovirus	*Restaurant - other or unknown type*	*61*		
	1998	Canada	Salmonella		22		
	1997	California	Salmonella		24		
	1991	Multistate + Canada	Salmonella		>400		
	1990	Multistate	Salmonella		245		

literature reviewed & references:

Guidance for Industry: Guide to Minimize Microbial Food Safety Hazards of Melons - Draft Guidance -July 2009
UC - Davis – Cantaloupe: Safe Methods to Store, Preserve and Enjoy - Publication #8095 - 2003
Water Activity of Fresh Foods, Chirfe and Fontan, 1982
FDA Guidance for Industry: Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables - 1998
FDA Guidance for Industry: Guide to Minimize Microbial Food Safety Hazards of Melons - Draft Guidance -July 2009

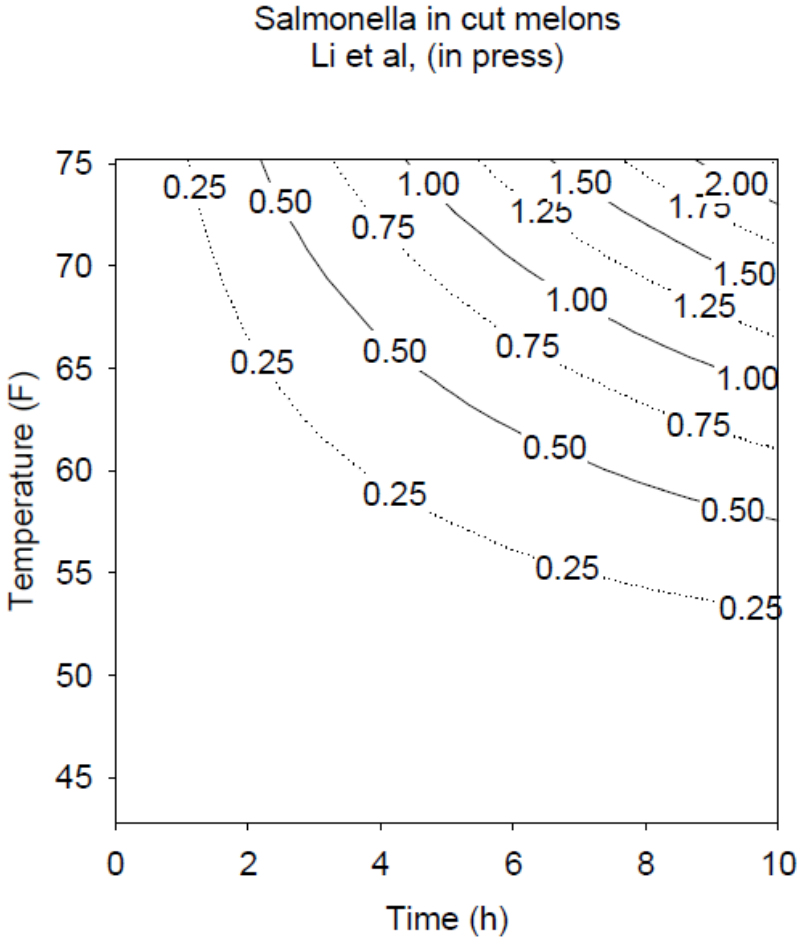
	FDA-Retail Food Safety PIM - Safe Handling Practices for Melons - 2001 Growth kinetics of Listeria monocytogenes and spoilage microorganisms in fresh-cut cantaloupe – 2013 FDA Bacteriological Analytical Manual – Chapter 25. Investigation of Food Implicated in Illness-2001 FDA Safe Practices for Food Processes - FDA-Chapter IV. Outbreaks Associated with Fresh and Fresh-Cut Produce FDA Safe Practices for Food Processes - Chapter V. Methods to Reduce-Eliminate Pathogens from Produce and Fresh-Cut Produce Development and Validation of a Mathematical Model for Growth of Pathogens in Cut Melons – 2012 (in press) NACMF - Parameters for Determining Inoculated Pack/Challenge Study Protocols – 2009 PMA-UFFVA Commodity Specific Food Safety Guidelines for the Melon Supply Chain – 2005 CDC Food Outbreak Data – 1998 – 2011 An Outbreak of Salmonella Serogroup Saphra Due to Cantaloupes from Mexico – 1997 – *good discussion on storage practices* - 1999 CDC Multistate Outbreak of Salmonella Typhimurium and Salmonella Newport Infections Linked to Cantaloupe – 2011 (Final Update) – 2012 CDC Epidemiologic Notes and Reports MultistateOutbreak of Salmonella poona Infections -- United States and Canada, 1991 CDC Multistate Outbreak of Listeriosis Linked to Whole Cantaloupes from Jensen Farms, Colorado - 2011

Link for Downloading - Meeting 05 Documents / References to avoid overloading Inboxes.
https://www.yousendit.com/download/WFJXL0dNTkxiV3hqQTlVag

First, Dr. Donald Schaffner, the new scientific consultant for the committee provided a self-introduction before he provided the committee with valuable scientific information on today's topics. He is a faculty member at Rutgers University specializing in predicative microbial growth modeling and risk assessment. He worked with the Institute of Food Technologists (IFT) committee on the 2001 report to FDA on *Analysis and Evaluation of Preventive Control Measures for the Control and Reduction/Elimination of Microbial Hazards on Fresh and Fresh-Cut Produce* and with the National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) *Parameters for Determining Inoculated Pack/Challenge Study Protocols*. He had also provided a number of informative references for the committee from his and other's work.

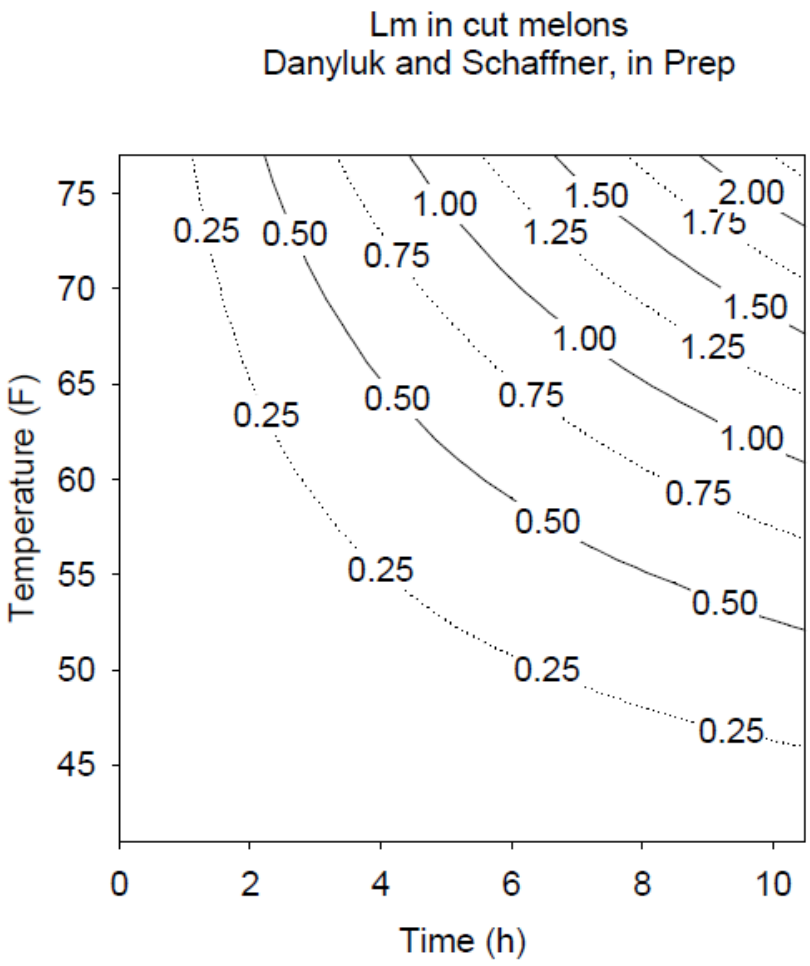
Discussion on cantaloupe included the following points:

- This modeling contour plot shows less than 1 log increase with Salmonella with no lag phase in four hours.



- The corrected SDA/ARS model shows a close match with this model in growth.

- For listeria the model shows 0.75 – 1 log increase in 4 hours.



- With listeria, the increase is a little faster than salmonella at the temperatures between 41°F and 75°F.

- Noted that the rates of increase are much greater at temperatures greater than 75°F.

- Reviewed earlier committee assumption that ambient temperature for these discussions of holding food with time rather than temperature control would be 75°F or less.

- Reminded that we are not charged with proposing changes to FDA's potentially hazardous food definition that includes 'cut melons'.

- Verified that the modeling information for cantaloupe also extends to other cut melons including honey dew and watermelons.

- Manuscript with this modeling information has been accepted for publication and should be considered ‘in press’.

- ComBase models for cantaloupe are included in the manuscript and are in agreement with this model for growth rates.

- Outbreak information, if available, should be checked for length of time abuse prior to consumption.

- Operational reality issues should be considered by the committee to add to the growth prediction science.

- Risk management needs to address: a. validity of model; b. acceptable log increase before it is dangerous for the consumer; and c. different levels of pathogens have different infectious doses.

- Leafy greens - Tim Jenkins & Amanda Douglas

The following committee data chart was reviewed by committee members:

Cut Leafy Greens	**Group Members:**	Tim Jenkins & Amanda Douglas			
	Examples & Description:	Fresh-cut (minimally processed) fruit and vegetable sales have grown to approximately $15 billion per year in the North American foodservice and retail market and account for nearly 15% of all produce sales. The largest portion of US fresh-cut produce sales at retail are fresh-cut salads, with sales of $2.7 billion per annum (24). FDA Food Code Definition: Fresh leafy greens whose leaves have been cut, shredded, sliced, chopped, or torn. The term "leafy greens" includes iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula and chard. The term "leafy greens" does not include herbs such as cilantro or parsley. Cut Leafy greens were designated as TCS food because they provide a medium that readily supports the growth of pathogens when they are held without temperature control after the internal fluid and nutrients are exposed by cutting the leaf. Cutting or shredding alters the physical properties (i.e., damages the waxy cuticle) and biochemical processes of the leaf and provides opportunities for microbial invasion of tissues. Studies show that E. coli O157:H7 is more likely than Pseudomonas, a predominant psychotropic spoilage microorganism that is able to grow at refrigeration temperatures, to become attached in the stomata and cut edges of the lettuce leaf (15). Studies on the survival and growth of E. coli O157:H7 in lettuce demonstrate that E. coli O157:H7 will decrease in numbers if stored at 39° – 41°F **but increase at higher temperatures.** The types of leafy greens to be considered are pre-washed, bagged cut leafy greens supplied by a produce manufacturer and/or leafy greens prepared by the retail establishment. Retail establishments have varying levels of performance on temperature control during storage. Bagged leafy greens displayed in retail grocery cases can remain several days before sale. Overcrowding and equipment performance may cause temperature abuse. In smaller groceries and some larger groceries that have delis and/or salad bars, bagged lettuce from the retail display, which may have been temperature abused, potentially may be used to make packaged salads or set out at a self-serve salad bar. ***Need scientific information on the rate of pathogen growth if leafy green are not chilled to 41°F prior to TPHC.***			
	pH	**Water Activity**	**Product Pathogens of concern**	**Contamination Pathogens of concern**	**Outbreak Information/data**
			E. coli 0157:H7. Studies on survival and growth of pathogens on lettuce and parsley have shown that Shigella sonnei and E. coli O157:H7 will decrease in	Salmonella, Listeria Monocytogenes.	See Info Below.

			numbers when the produce is stored at 4°–5°C/39°–41°F but increase at 12°C/54°F (E. coli O157:H7) and 21°C/70°F (both pathogens)(1, 28). Seo and Frank (20)		
	1. A review of eleven years of foodborne illness data has revealed that, between 1998 and 2008, leafy green vegetables and dairy sickened the greatest number of people, while poultry caused the most deaths. A full 46 percent of these illnesses were attributed to produce items, led by leafy greens, which alone accounted for 22 percent of illnesses. Dairy was the next leading source of sickness, linked to 14 percent of cases, followed by fruits and nuts. 2. Since 1995, FDA records indicate that 22 US outbreaks of foodborne illness caused by Escherichia coli O157:H7 have been associated with consumption of fresh or fresh-cut lettuce and two with pre-washed spinach (9). In 2006, a large E. coli O157:H7 outbreak associated with pre-washed spinach affected over 200 people in more than 20 states (10). This outbreak was followed by two restaurant-associated outbreaks linked to consumption of pre-washed lettuce. An outbreak of E. coli O157:H7 in 2005, in Minnesota, was epidemiologically associated with pre-washed bagged salad products containing romaine lettuce (7). 3. The number of produce associated outbreaks has risen from <20 in the 1970s to >100 in the 1990s, a majority (48%) of produce outbreaks were caused by Salmonella.				
literature reviewed & references:	-FDA Food Code 2009: Chapter 1 - Purpose & Definitions - Quantitative Assessment of the Microbial Risk of Leafy Greens from Farm to Consumption: Prelimary Framework - Leafy Greens, Dairy Top Foodborne Illness Causes at Turn of 21st Century. Poultry leading cause of death. Food Safety News - AFDO Guidance for Processing Fresh-cut Produce in Retail Operations - FDA Program Information Manual Retail Food Protection: Recommendations for the Temperature Control of Cut Leafy Greens during Storage and Display in Retail Food Establishments -Abstract 2012 International Association of Food Protection Annual Conference (39 related to leafy greens) -How do pathogens get into produce? Food Safety News, Jan 2013. -Food Service Recommendation for handling fresh cut leafy greens for retail. Food Protection Trends, 2007. - Two sides of the coin for leafy greens. Food Safety News, February 21, 2013. -Survey of Temp and Consumption Patterns Fresh Cut Leafy Greens. JFP 2007. -Combase Search Result PH & Water Activity Cut Products.				

Discussion on leafy greens also included the following points:

- Review of data also included the FDA Program Information Manual Guidance on Cut Leafy Greens.

- Leafy greens cover a wide variety of products including the bagged, fresh market items.

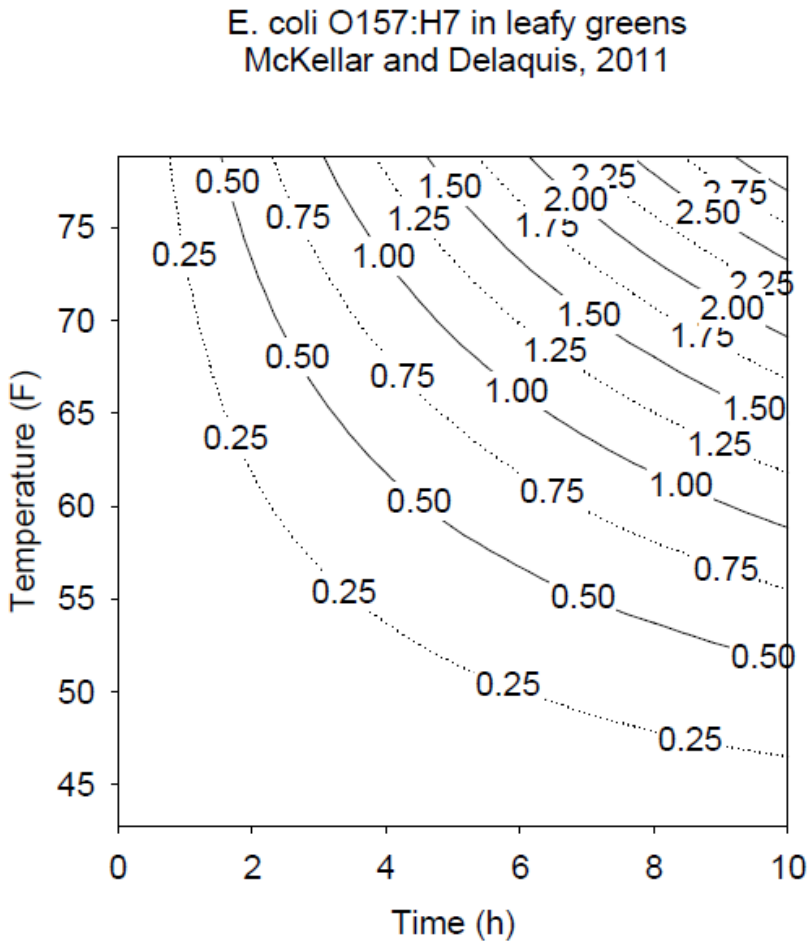
- Over the past 11 years, 46% of the *E. coli* O157:H7 outbreaks have been attributed to leafy greens.

- Operational issues need to be addressed in committee discussions including refrigeration performance and employee practices including unfamiliarity of cut leafy greens being a potentially hazardous food.

- Leafy greens as a potential pathogen vehicle and growth media is still evolving through large number of studies still being conducted on this commodity as evidenced by high number of recent publications.

- Contour plots of log growth of time vs. temperature show similarities to those of melons.

- At 75°F, the contour plot shows a little more than a log growth of *E. coli* O157:H7 in four hours.



- Listeria risk may be lower than E. coli because of higher infectious dose.

- Outbreak risk higher with cut leafy greens because of general temperature abuse by uninformed food employees.

- Turnover with leafy greens can be a long time, often in the danger zone. Cut leafy greens in a retail market setting can move from retail display to salad bar operations extending the exposure to ambient temperatures in poorly performing refrigeration cases.

- Cut cabbage is one commodity covered in the FDA guidance, but again is not linked in the managers and workers minds as a product requiring temperature controls. Processing the product into a vinegar or mayonnaise coleslaw mixture does not change the concerns without controls being instituted.

- A Listeria outbreak was noted from shredded cabbage made into sauerkraut and the reference will be furnished to the committee.

- Local food movements often source greens and cut greens from parts of the food supply chain not familiar with the recently recognized hazards of these products.

- Committee generally agreed that more research information was needed on leafy greens before the members would feel comfortable making a recommendation related to the Conference charge.

- EHS-Net studies were cited on retail processing practices like coring leafy greens and washing affecting product temperature.

- Consideration should be given by the committee to separating out various leafy greens into categories rather than treating all the same with our recommendations to the Conference.

- Committee was cautioned about drifting into recategorizing FDA's PHF/TCS product examples in the Food Code definition.

- Discussion was held on how to properly evaluate the temperature of cut leafy greens, including bagged and bulk product, with reference to FDA PIM on Cut Leafy Greens and still forthcoming FDA guidance on this issue.

- All committee members were encourage to read the references provided on these and other products commodities under review as we move forward with consensus discussions for our final report.

8. Selection of Next Food Items for Assessment Discussions

Lisa Weddig and George Zameska volunteered for leading canned tuna review for our next committee meeting. Sue Tyjewski and Donna Wanucha also volunteered for directing the chopped garlic and oil discussions.

Remaining food items to be discussed by the committee and the confirmed / potential data collectors:

Hummus -Commercially Prepared / **Prepared at Location**/ Hector Dela Cruz, Kenneth Watt *& Becky Krzyzanowski - To Be Confirmed*

Open Canned Product - Sole Product / Bob Brown *& Gina Nicholson - To Be Confirmed*

Open Canned Product - Mixed with Other Products / *Henry Blade, Girvin Liggans & Vito Palazzolo - To Be Confirmed*

9. Set Date for Next Meeting

Committee discussed the possibility of two meetings in May to expedite the work on completion of the committee charge. **Meeting 06** could be **May 5 or 6** and **Meeting 07 could be May 28 or 29**. After general agreement, it was decided to poll these dates with all committee members for availability.

10. Adjourn

The committee adjourned the meeting about 2:25 PM.

11. Meeting 05 Recording Link

You can also review our April 22 web meeting on the recording at:

Direct Viewing Link: **View Recording**

Alternate Logon Information:

Subject: CFPIII Time As A Public Health Control - Meeting 05
Recording URL: https://www.livemeeting.com/cc/cdc/view
Recording ID: K9MP4T
Attendee Key: 2013-04-22-A

Notes:

Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.

Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

Corrected DRAFT Minutes

CFP Council lll Time as a Public Health Control Committee Meeting 06

May 28, 2013 – 1:00 – 2:30 PM EDT

1. Agenda Review

2. Roll Call:

Charles Otto (Co-Chair)	X	Gina Nicholson	X
Sue Vergne (Co-Chair)	X	Vito Palazzolo	
Henry Blade	X	Sue Tyjewski	X
Bob Brown	X	Kenneth Watt (Ken)	
Deborah Carney (Deb)		Lisa Weddig	
Hector Dela Cruz	X	George Zameska	X
Amanda Douglas		Girvin Liggans (FDA Consultant)	X
Bob Jue		Donna Wanucha (FDA Consultant)	X
Tim Jenkins		Don Schaffner (Science Consultant)	X
Becky Krzyzanowski	X		
Guests: Todd Rossow			

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The committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document.

The committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

4. Meeting Note Taker

Hector Dela Cruz & Bob Brown volunteered to record the notes and prepare the draft minutes for this meeting.

5. Review / Approve Minutes – 4/22/2013

Charles Otto served as the recorder for this meeting and was recognized for his diligent work on behalf of the committee. The minutes were amended to correct a spelling error "contour plot" and approved as amended.

The web meeting recording of the meeting is available at:

Direct Viewing Link: **View Recording**

Alternate Logon Information:

Subject: CFPIII Time As A Public Health Control - Meeting 05
Recording URL: https://www.livemeeting.com/cc/cdc/view
Recording ID: K9MP4T
Attendee Key: 2013-04-22-A

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6. Committee Discussion – Products and Commodities

- Opened Canned Tuna – Lisa Weddig and George Zameski

George presented information from their investigation into this commodity:

- pH: 5.8 – 6.0
- a_W: 0.97 in water and slightly less in oil
- Pathogen of concern: histamine production
- Tuna from a can will be sterile
- Most studies deal with the production of histamines
- If clean utensils, pans etc. are used the product will hold up for a while without growth

- No outbreaks associated with canned tuna
- Canned tuna must be inoculated with a species of histamine producing bacteria in order for histamine to develop
- Canned tuna has been associated with histamine outbreaks but this was attributed to the raw tuna having developed histamine prior to canning
- Histamine is not destroyed during the canning process so the quality of the incoming raw product is critical to avoid histamine issues
- Produce items (onion, celery, etc.) added to canned tuna will increase the risks of introducing pathogens or histamine producing species of bacteria
- Tuna can easily be held safely at ambient for 4 hours however, adding other ingredinets can increase risks
- One of the most frequent issues identified during inspections is dirty can openers that could introduce bacteria i.e. listeria, histamine producing species etc.
- According to Don; growth models show that based on the pH and a_w of canned tuna there would be less than a 1-log growth of Staph aureus and listeria in canned tuna after 4 hours at ambient

Opened Canned Tuna	**Group Members:**	Lisa Weddig & George Zameska		
	Examples & Description:			SPC/g 30°C - 3 days
		0010057-01a	Shredded Tuna (chunky, nice looking texture). In serving container upon purchase.	<250
		0010057-04a	Finely shredded to pasty Tuna (average) Straight out of tin – Home Brand Sandwich Tuna	<250
		0010057-05a	Shredded Tuna (chunky, nice looking texture). In serving container upon purchase.	140,000
		0010057-06a	Flaked / Shredded Tuna (chunky, nice looking texture). Straight out of tin (Ocean Blue Tuna in brine).	<250
		0010057-07a	Shredded Tuna (chunky, nice looking texture) Approx In serving container upon purchase.	210,000
		0010057-08a	Shredded Tuna (chunky, nice looking texture). In serving container upon purchase.	9,200
		0010057-09a	Shredded Tuna (chunky, nice looking texture). In serving container upon purchase.	>30 x 106
		0010057-10a	Finely shredded to pasty Tuna (average). Straight out of tin.	13,000
		0010057-11a	Finely shredded to pasty Tuna (average). Straight out of tin.	1,200
		0010057-12a	Shredded Tuna (chunky, nice looking texture). In serving container upon purchase.	770

	pH	Water Activity	Product Pathogens of concern	Contamination Pathogens of concern(histamine production level > 500 ppm (50mg/100g)action level	Outbreak Information/data
	low acidity level of 5.8, Generally above 6.0	High water activity > .95aw	Fresh Tuna Fillet A, 17°C/62.6°F	17ppm	30 hr, Day 1+
			Fresh Tuna Fillet A, 17°C/62.6°F	500ppm	65 hrs, Day 2 +
			Fresh Tuna Fillet A, 17°C/62.6°F	730ppm	72 hrs, Day 3
			Fresh Tuna Fillet A, 17°C/62.6°F	1200ppm	96 hours, Day 4
			Fresh Tuna Fillet B, 17°C/62.6°F	38ppm	30 hours, Day 1+
			Fresh Tuna Fillet B, 17°C/62.6°F	500ppm	55 hrs Day 2
			Fresh Tuna Fillet B, 17°C/62.6°F	1200ppm	72 hours Day 3
			Fresh Tuna Fillet B, 17°C/62.6°F		
literature reviewed & references:	1. Effect of Storage Conditions on Histamine Formation in Fresh and Canned Tuna, Maurice Kerr, Paul lawicki, Sylvia Aquirre and Carl Rayner, State Chemistry Lab, Weribe, Apr-02, Public Health Division, Victorian Government Department of Human Services, Edition 1, 28102002 (www.foodsafety.vic.gov.au 2. FERNANDEZ-SALGUERO, J., ALCALA, M., MARCOS, A., ESTEBAN, Ma. A., CABEZAS, L. and GOMEZ, R. (1989), Determination of water activity of canned fish using gravimetric, hygrometric and psychrometric methods. International Journal of Food Science & Technology, 24: 233–236. doi: 10.1111/j.1365-2621.1989.tb00640.x				
	Examples & Description:	Histamine production by Raoultella ornithinolytica in canned tuna meat at various storage temperatures Histamine-producing strains R. planticola (40 strains) and R. ornithinolytica (13 strains)			

	pH	Water Activity	Product Pathogens of concern	Contamination Pathogens of concern (histamine production level > 500 ppm (50mg/100g)action level	Outbreak Information /data
			Raoultella ornithinolytica at a innoculum level of 2.0 log CFU/g 37°C/98.6°F	37°C/98.6°F 500ppm histamine	**12 hours**
			Raoultella ornithinolytica at a innoculum level of 5.0 log CFU/g (high) 25°C/77°F	25°C/77°F 500ppm histamine	**12 hours**
literature reviewed & references:	1. Histamine production by Raoultella ornithinolytica in canned tuna meat at various storage temperatures, Chia-Min Lina et. All, Department of Seafood Science, National Kaohsiung Marine University, No. 142, Hai-Chuan Rd., Nan-Tzu, Kaohsiung 811, Taiwan, ROC, Department of Biotechnology, Tajen University, Pingtung, Taiwan, ROC, Seafood Research and Education Center, Oregon State University, Astoria, OR 97103, USA 2. Klebsiella pneumoniae Produces No Histamine: Raoultella planticola and Raoultella ornithinolytica Strains Are Histamine Producers, Masashi Kanki,* Tomoko Yoda, Teizo Tsukamoto, and Tadayoshi Shibata, Osaka Prefectural Institute of Public Health, Higashinari-ku, Osaka 537-0025, Japan, Appl Environ Microbiol. 2002 July; 68(7): 3462–3466. http://aem.asm.org/content/68/7/3462				
	Examples & Description:				SPC/g 30°C - 3 days
		0010057-02a		Shredded to Pasty Tuna with spring onions (OK) In serving container upon purchase	380,000
		0010057-02a		Shredded to Pasty Tuna with spring onions and corn (OK) In serving container upon purchase	74,000
		FDA study, tuna mixutres, bacteria growth and histamine production, ambient conditions			

	pH	Water Activity	Product Pathogens of concern	Contamination Pathogens of concern	Outbreak Information/data (source CDC)
	5.8-6.2	High> .95aw		Scombroid toxin (Histamine)	Tuna Burger, tuna salad, tuna steak, raw tuna, BBQ tuna canned tuna, pouch tuna, ,unspecified
				Norovirus	2003 Restaurant, raw tuna, 2001 Church-tuna crossant, Restaurant-tuna salad, 2000 Camp/school - tuna salad, 2006 (2)Church - tuna salad
				Rotovirus	2002 Rest. Tuna salad
				Staphylococcus aureus	2004 Rest - tuna salad
				Clostridium botulinum	1998 unspecfied
				Salmonella enterica	2004 Prison -tuna unspecified
			Tuna & Mayo - innoculum Morganella morganii (fish) 3.0 log CFU/g	25°C/77°F (>3000ppm)	24 hours
			Tuna & Mayo - innoculum Pantose spp./Erwina spp.(organic celery) 3.3 log CFU/g	25°C/77°F growth 6-8 log CFU/g, <50ppm histamine	3 days
			Tuna & Mayo - innoculum Erwinina persicine (celery) 2.5 log CFU/g	25°C/77°F no growth, <50ppm histamine	3days
			Tuna & Mayo - innoculumErwineia spp. Rhapontici/persicinuus) (organic celery) 2.8 log CFU/g	25°C/77°F no growth, <50ppm histamine	3days
			Tuna & Mayo - innoculum Enterobacter pyrinus (organic & conventional celery) 3.2 log CFU/g	25°C/77°F growth 6-8 log CFU/g, <50ppm histamine	3 days
			Tuna & Mayo 400gm- innoculum Pantose spp./Erwina spp.(organic celery) 3.3 log CFU/g	30°C/86°F, growth 5 log, no histamine production	3 days
			Tuna & Mayo 400gm- innoculum Erwinina persicine (celery) 2.5 log CFU/g	30°C/86°F, growth 1 log no histamine production	3 days
			Tuna & Mayo 400gm- innoculumErwineia spp. Rhapontici/persicinuus) (organic celery) 2.8 log CFU/g	30°C/86°F, growth 1 log no histamine production	3 days
			Tuna & Mayo 400gm- innoculum Enterobacter pyrinus (organic & conventional celery) 3.2 log CFU/g	growth 5 log 30°C/86°F, 513 ppm histamine	3 days

			Tuna & Mayo 400gm & 40 gm celery - innoculum Pantose spp./Erwina spp.(organic celery) 3.3 log CFU/g	**30°C/86°F growth -1log <50ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 40 gm celery - innoculum Erwinina persicine (celery) 2.5 log CFU/g	**30°C/86°F growth 3 log <50ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 40 gm celery - innoculumErwineia spp. Rhapontici/persicinuus) (organic celery) 2.8 log CFU/g	**30°C/86°F growth 4.3 log 115 ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 40 gm celery - innoculum Enterobacter pyrinus (organic & conventional celery) 3.2 log CFU/g	**growth 7 log 30°C/86°F 2046 ppm hisatime**	**3 days**
			Tuna & Mayo 400gm & 25gm onion - innoculum Pantose spp./Erwina spp.(organic celery) 3.3 log CFU/g	**30°C/86°F growth -1log <50ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 25gm onion - innoculum Erwinina persicine (celery) 2.5 log CFU/g	**30°C/86°F growth 3 log <50ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 25gm onion - innoculumErwineia spp. Rhapontici/persicinuus) (organic celery) 2.8 log CFU/g	**30°C/86°F growth 2.7 log <50ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 25gm onion - innoculum Enterobacter pyrinus (organic & conventional celery) 3.2 log CFU/g	**30°C/86°F growth 7 log <920ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 20% distilled vinegar - innoculum Pantose spp./Erwina spp.(organic celery) 3.3 log CFU/g	**30°C/86°F growth -10 log no histamine production**	**3 days**
			Tuna & Mayo 400gm & 20% distilled vinegar - innoculum Erwinina persicine (celery) 2.5 log CFU/g	**30°C/86°F growth - 10 log no histamine production**	**3 days**
			Tuna & Mayo 400gm & 20% distilled vinegar - innoculumErwineia spp. Rhapontici/persicinuus) (organic celery) 2.8 log CFU/g	**30°C/86°F growth -10 log no histamine production**	**3 days**

			Tuna & Mayo 400gm & 20% distilled vinegar - innoculum Enterobacter pyrinus (organic & conventional celery) 3.2 log CFU/g	**30°C/86°F - no growth no histamine production**	**3 days**
			Tuna & Mayo 400gm -innoculum Morganella (fish) 2.7 log CFU/g	**18°C/65°F growth 3.5 log no histamine production**	**3 days**
			Tuna & Mayo 400gm & 40 gm celery -innoculum Morganella (fish) 2.7 log CFU/g	**18°C/65°F growth 3.5 log 1101 ppm histamine production**	**3 days**
			Tuna & Mayo 400gm & 25gm onion -innoculum Morganella (fish) 2.7 log CFU/g	**18°C/65°F growth 2 log no histamine production**	**3 days**
			Tuna & Mayo 400gm & 20% distilled vinegar -innoculum Morganella (fish) 2.7 log CFU/g	**18°C/65°F no growth no histamine production**	**3 days**
			Tuna & Mayo 400gm -innoculum Morganella (fish) 2.7 log CFU/g	**30°C/86°F - growth 4.5 log 3083 ppm histamine (after 1st day 298 ppm)**	**2 days**
			Tuna & Mayo 400gm & 40 gm celery -innoculum Morganella (fish) 2.7 log CFU/g	**30°C/86°F - growth 4 log, 1315 ppm histamine**	**1 day**
			Tuna & Mayo 400gm & 25gm onion -innoculum Morganella (fish) 2.7 log CFU/g	**30°C/86°F - growth 5.5 log 2400 ppm histamine**	**3 days**
			Tuna & Mayo 400gm & 20% distilled vinegar -innoculum Morganella (fish) 2.7 log CFU/g	**30°C/86°F - growth 3 log, no histamine production**	
literature reviewed & references:	1. Effect of Storage Conditions on Histamine Formation in Fresh and Canned Tuna, Maurice Kerr, Paul lawicki, Sylvia Aquirre and Carl Rayner, State Chemistry Lab, Weribe, Apr-02, Public Health Division, Victorian Government Department of Human Services, Edition 1, 28102002 (www.foodsafety.vic.gov.au) 2. Center for Disease Control, Foodborne Outbreak Online Database (FOOD), http://wwwn.cdc.gov/foodborneoutbreaks/ 3. Bacterial Growth and Histamine Production in Tuna Salad Preparation, McCarty Susan, et. all, US Food & Administration, Gulf Coast Seafood Laboratory, Dauphin Island, AL, 36528, World Technology Ingredients, Inc. Jefferson, GA 30549				

Summary Report base on literature review	Canned tuna undergoes a 12 D thermal process with the target organism being *Clostridium botulinum*. Minimum Critical Limits: Retort venting for at least 10 minutes to at least 230ºF. Canned tuna when properly handled prior to processing and subsequently processed is commercially sterile. Pathogen growth or toxin formation in opened canned tuna will only occur when microorganism of concern are introduced. Research studies referenced indicate that bacteria capable of producing histamines can be introduced to canned tuna by addition of produce (celery & onion) commonly done to produce tuna mixtures. Tuna that does not have produce directly introduced can be subject to cross contamination occurring from product preparation activities. Cross contamination of histamine producing bacteria from raw fish when handled in the same environment with canned tuna poses the same hazard. Canned tuna once opened is a TCS food and will readily support growth of food pathogens if introduced into the tuna. FDA action level for human health concern due to the presence of histamine is 500ppm. Studies used this figure as the bench mark for evaluation of histamine production concern. Studies indicate that histamine production does not occur quickly. Ideal condition histamine production (high inoculum dose loading and human body temperature ambient conditions) required a minimum of 8 -12 hours for significant histamine production. Normal time periods range from 1 to 3 days depending upon the bacteria species, dose level and ambient temperature.

- Garlic and Oil Mixtures – Sue Tyjewski and Donna Wanucha

Sue and Donna presented the following information from their investigation into this commodity:

- pH: 5.7
- a_W: not known (no data available)
- C. bot is the pathogen of concern
- There have been no issues with post 1990 commercially prepared garlic and oil products that have been acidified
- There is no modeling available for C. bot growth
- The Skinner Larkin model could possibly be used but it uses lower temperatures 50°F (10°C)
- Don will attempt to provide modeling
- According to lab tests; at 95°F, 1-log of toxin can develop in 1 day
- An outbreak has been document for onions in oil when they were held overnight at ambient
- Rarely are kitchens at 70°F and garlic & oil is generally stored near cooking areas where the temperature is much higher

Chopped Garlic & Oil	**Group Members:**	Sue Tyjewski & Donna Wanucha			
	Examples & Description:	fresh garlic in oil mixtures			
	pH	**Water Activity**	**Product Pathogens of concern**	**Contamination Pathogens of concern**	**Outbreak Information/data**
	>4.6 (Safe Practices for Food Processes 6/15/2012	fresh garlic- >.88	C. botulinum	Lm if conditions are conducive to facultative growth	1985- Canada, Restaurant chopped garlic in oil, involved dehydrated and rehydrated garlic, labeled "keep refrigerated". 1985- NY, home setting, purchased chopped garlic labeled "keep refrigerated, time/temp abused 1989-garlic bread made with garlic and oil 1991 and 1992, home bottled garlic and oil, pH5.7
literature reviewed & references:	Solomon, H.M. and D.A. Kautter, 1988. Outgrowth and toxin production by Clostridium botulinum in bottled chopped garlic. J. Food Prot. 51(11):862-865.	Am J Public Health. 1990 Nov;80(11):1372-3. Garlic-in-oil associated botulism: episode leads to product modification. Morse DL, Pickard LK, Guzewich JJ, Devine BD, Shayegani M	C. botulinum Type A @95F(35C) increases by 1 log, NIH Toxin Production of C. botulinum 1979		

7. Selection of Next Food Items for Assessment Discussions

Remaining food items to be discussed by the committee and the confirmed data collectors are:

Hummus -Commercially Prepared / **Prepared at Location**/ Hector Dela Cruz, Kenneth Watt & Becky Krzyzanowski

Open Canned Product - Sole Product / Bob Brown & Gina Nicholson

Open Canned Product - Mixed with Other Products / Henry Blade (confirmed to be a secondary with limited participation due to a time commitment with the CFP Listeria committee), Girvin Liggans & Vito Palazzolo

All sub-committees agreed that they would be ready to present information on their commodity during the July meeting.

8. Consensus Building

Rather than presenting the remaining commodity groups during our next meeting the committee with be working on coming to consensus concerning the following commodities that have already been presented.

- Cut tomatoes
- Cut cantaloupe
- Chopped leafy greens
- Chopped garlic and oil
- Opened canned tuna
- Opened canned beans (e.g., green beans, chickpeas, black beans)

Committee members need to be thinking about whether we have enough information to come to a consensus on the length of time these commodities can be safely held without temperature control and without cooling to ≤41°F.

Charles will work on developing a table to support the committees discussions around these commodities.

9. Committee Reports

The Committee's 1st Report to the Board was accepted. The 2nd Report is due to the Board in July and the Final Report is due on December 16th.

10. Set Date for Next Meeting

The committee discussed possible meeting dates of June 18th, 19th or 20th. A poll will be distributed to determine the availability of all committee members; the

June meeting will be scheduled based on the date that works best for committee members.

11. Adjourn

The committee adjourned the meeting about 2:25 PM.

12. Meeting 06 Recording Link

You can also review our May 28th web meeting on the recording at:

Direct Viewing Link: **View Recording**

Alternate Logon Information:

Subject:	CFPIII Time As A Public Health Control - Meeting 06
Recording URL:	https://www.livemeeting.com/cc/cdc/view
Recording ID:	FJT69D
Attendee Key:	2013-05-28-A

Notes:

Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.

Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

CFP Time as a Public Health Control Committee
***DRAFT* Meeting Minutes**

Seventh Meeting June 19, 2013 1:00pm EDT
Next meeting TBD: Projected to be in next 4 weeks.

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1. **Agenda Review**

2. **Attendees**

Name	Present
Charles Otto (Co-Chair)	x
Sue Vergne (Co-Chair)	x
Henry Blade	
Bob Brown	
Deborah Carney	
Hector Dela Cruz	
Amanda Douglas	x
Robert Jue	x
Tim Jenkins	x
Becky Krzyzanowski	
Gina Nicholson	
Vito Palazzolo	
Sue Tyjewski	
Kenneth Watt	
Lisa Weddig	x
George Zameska	x
Girvin Liggans	
Donna Wanucha	
Guest - Todd Rossow	X

Charles Otto stated that due to limited participation by committee members a quorum could not be reached, so today is considered an advisory meeting.

3. **Meeting Recorders**

Amanda Douglas and Lisa Weddig served as the recorders for this meeting.

With permission of the attendees, the meeting was recorded for the benefit of those who could not attend and for the Committee's records. The web meeting recording of the meeting is available at:

Direct Viewing Link: **View Recording**

Alternate Logon Information:

Subject: CFPIII Time As A Public Health Control - Meeting 07
Recording URL: https://www.livemeeting.com/cc/cdc/view
Recording ID: FRKB2J
Attendee Key: 2013-06-19-A

Notes:
Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.

Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

4. Reviewed Minutes from Last Meeting 05.28.13.

Bob Brown and Hector Dela Cruz served as the recorders for this meeting and were recognized for their diligent work on behalf of the Committee. The minutes were amended to add Todd Rossow as a guest and the canned tuna table provided by George Zameska and Lisa Weddig will be added. *Since a quorum was not reached the amended minutes were recognized as being correct and would be approved during the next call.* Charles also stated that the board accepted the first report that was submitted.

5. Update on CFP Board Meeting on May 14th & 15th in Orlando, FL.

Todd Rossow the Vice Chair from Council III joined the meeting to provide an update on the CFP Board meeting that took place on May 14th/15th. Todd provided the following highlights:

- Hamilton County Ohio received the CFP Crumbine award.
- The 2016 CFP Biennial meeting is scheduled to take place in Boise, Idaho.
- Arrangements for the May 3-7, 2014 CFP Biennial meeting in Orlando, FL are going well.
- An update on the number of CFP members was provided:
  519 Total (139 – Food Industry, 150 – Regulated industry, 194 – Regulatory, 3 – Consumers and 33 – Academia)
- No issues were highlighted with the Committee report outs.
- Dave Gifford suggested a convening of the different Councils to ensure there is an understanding of the rules for resolving issues and to make sure that everything is submitted well to streamline the process.
- The next CFP Board meeting is to be held in Louisville, Kentucky on August 13th/14th 2013. Charles highlighted that we need to get our issue finalized so that:
  1) The report from the Committee is finalized and submitted.
  2) The Committee decides if there needs to be a new issue submitted by December 16th 2013.
- The online application for CFP Members to apply for consideration to sit on a CFP Council at the 2014 Biennial Meeting is now open. The application process will end on July 8, 2013. Applications are reviewed by the Council Chairs and Vice Chairs and selections will be made based upon a number of criteria, some of which are constitutionally defined. For example, Councils must be balanced by constituency and geographic distribution. Applicants must have attended at least one previous Biennial

Meeting. Charles reiterated that active committee participation increases the chance of being selected and encouraged interested committee members to apply. Sue Vergne asked whether when applying for a Council would there be a conflict of interest if applying for Council III. Charles confirmed that there is no conflict and a Committee member can apply for any Council. Charles thanked Todd Rossow for his report out and support.

6. Review Committee Charge

Sue Vergne reviewed the Committee's charge. The Conference recommends:

That a Committee be formed to identify safe times at which foods can be held without temperature control and without cooling to 41°F, supported by scientific information (e.g., challenge studies, modeling tools).

The Committee's charge shall include, but not be limited to, the following foods and food categories:

- Cut tomatoes
- Cut cantaloupe
- Chopped leafy greens
- Chopped garlic and oil
- Opened canned tuna
- Opened canned beans (e.g., green beans, chickpeas, black beans)

The Committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document. The Committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

Charles asked if everyone on the call is comfortable with the process, George Zameska asked whether a specific product would be reviewed today. Charles confirmed that the outstanding products are still being worked on and will be reviewed in July.

7. Preliminary Consensus Form Discussion

Charles stated that due to there not being a quorum the consensus form will be preliminarily discussed today and the discussion results recorded in the minutes. The consensus form will be reviewed and discussed again during our next meeting to ensure all committee members have input into our issue consensus. George asked Charles to review the consensus form process, Charles then went through each product with the group to complete the table below:

Issues	1. Starting Time Control at ≤ 75°F. (The product must not go above 75°F during the Four Hours)			2. Holding Time Out of Temperature – Four Hours - *if > or < than Four Hours – Add Remarks in Comments*			Comments / Concerns
Consensus Position on These Products / Commodities	***Support***	***Neutral***	***Opposed***	***Support***	***Neutral***	***Opposed***	
Cut tomatoes	X Due to FDA Guidance: Time as a Public Health Control for Cut Tomatoes			X			Caveat: Tomatoes need to be of sound condition.
Opened canned beans (e.g., green beans, chickpeas, black beans)	X Thermal process renders the product commercially sterile			X			Caveat: Cans need to be of sound condition with no dents.
Cut cantaloupe	X Modeling program states it took 4 hours for 1 log growth. FDA Food code language regarding produce washing.			X			Caveat: Melons need to be of sound condition and cleaned according to food code provisions for washing produce
*Chopped leafy greens		X The product is difficult to clean and determine condition. Need more Information to be able to determine		Not discussed. To be determined			.

Issues	1. Starting Time Control at ≤ 75°F. (The product must not go above 75°F during the Four Hours)			2. Holding Time Out of Temperature – Four Hours - *if > or < than Four Hours – Add Remarks in Comments*			Comments / Concerns
Consensus Position on These Products / Commodities	***Support***	***Neutral***	***Opposed***	***Support***	***Neutral***	***Opposed***	
Commercial chopped garlic and oil	X Acidified product FDA Food Code identifies Garlic in Oil that has been acidified as a Non TCS Food. Commercial oil and garlic is acidified, so question whether or not this is included in the charge						
Restaurant chopped garlic and oil			X Need further review of the data.	Not discussed. To be determined			George to provide more information. Need to explore Home Made.
Opened canned tuna	X Thermal process renders the product commercially sterile.			X			Caveat: Cans need to be of sound condition with no dents.

*FDA Food Code Definition of cut leafy greens: means fresh leafy greens whose leaves have been cut, shredded, sliced, chopped, or torn. The term "leafy greens" includes iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula and chard. The term "leafy greens" does not include herbs such as cilantro or parsley.

8. Selection of Next Food Items for Assessment

The next food items to be assessed at the next meeting are: hummus; opened canned product used as sole item; and opened canned product used as an ingredient in a formulation. Ideally these products will be assessed prior to the next board meeting report in August 2013, however if research isn't available the committee may need to defer on these products until further instructions are received from the Councils.

9. Wrap up & Next Meeting

Next meeting to be polled from four possible dates: July 16th / 17th / 30th / 31st. It was agreed that 1pm ET seems to be the most suitable time.

Planned Next Meeting Information:

CFPIII - Time as a Public Health Control - Meeting 08

Web Meeting Log-On Info:

When: Wednesday, July 30, 2013 1:00 PM – 2:30 PM (EDT)

Direct Web Access Link – Click Here >> **Join the meeting.**

Audio Access Link: (877) 934-0229 Passcode: **9977058**

(Remember to Please Mute Your Telephones, Unless You Are Speaking)

Alternate Web Access Info:

1. Copy this address and paste it into your web browser: **https://www.livemeeting.com/cc/cdc/join**

2. Copy and paste the required information:

   Meeting ID: S9CKB5

   Entry Code: 2013-07-30-A

First Time Users: To save time before the meeting, **check your system** to make sure it is ready to use Microsoft Office Live Meeting. You may need technical support to install the free Microsoft client software.

Notice: *Microsoft Office Live Meeting can be used to record meetings. By participating in this meeting, you agree that your communications may be monitored or recorded at any time during the meeting. Permission to record this meeting for our committee archives will be requested before the start of the committee meeting.*

Prior to the meeting, if you have trouble connecting, please call Charles Otto @ 678-488-0011 - cell.

Note: *If you cannot join us Live for the meeting, please review the video link to be sent at your earliest convenience and contribute your ideas via a response to all on the committee. We need your input on the food safety questions that our committee is dealing with for the conference.*

Agenda

Roll Call

Name	X	Name	X
Charles Otto (Co-Chair)		Gina Nicholson	
Sue Vergne (Co-Chair)		Vito Palazzolo	
Henry Blade		Sue Tyjewski	
Bob Brown		Ken Watt	
Deb Carney		Lisa Weddig	
Hector Dela Cruz		George Zameska	
Amanda Douglas		Girvin Liggans	
Bob Jue		Donna Wanucha	
Tim Jenkins		Don Schaffner	
Becky Krzyzanowski			
Invited Guests: Dave Gifford, Todd Rossow			

Note Taker Recognition - Becky Krzyzanowski / *TBD*

Review / Approve Minutes – 05/28/2013 and 06/19/2013
– Thanks Amanda Douglas and Lisa Weddig!

Review Committee Charge

Committee Discussion *Continued* on Consensus on:

Cut tomatoes; Opened canned beans (e.g., green beans, chickpeas, black beans); Cut cantaloupe; Chopped leafy greens; Chopped garlic and oil; and Opened canned tuna (*See minutes of 19 June meeting for preliminary consensus discussions)*

(Form to be used in summarizing the consensus and remaining information needed for consensus. Please review and complete yours before call, if you have not done this before.)

Remaining Food Items for Assessment:

1. **Hummus**
2. **Opened canned product used as sole item**
3. **Opened canned product used as an ingredient in a formulation**

Possible Dates for Next Meeting: August 14, 29, or 30

Wrap-Up Review

Adjourn