

California Walnut Board

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GRADES & STANDARDS COMMITTEE MEETING MINUTES

Thursday, September 10, 2009

The California Walnut Board Grades & Standards Committee met on Thursday, September 10, 2009 at the Marriott Hotel Rancho Cordova. Committee Chairperson Sam Keiper called the meeting to order at 1:35 p.m. Chairperson Keiper called the roll and all members were present:

Sam Keiper, Chairperson
Bill Carriere, Vice-Chairperson
Gary Ford (non-voting member)
Chuck Crain
Pete Turner
Steve Lindsay

Committee member Gus Mariani was absent. Also in attendance were Duane Lindsay, CWB/CWC Technical Advisor; Debbie Wray, USDA/AMS; Food Safety Workgroup members Don Barton, Jenny Lester-Moffitt, Kiran Black, Frank Guerra, Matt Doyle and Don Walters; Mike Hurley of DFA; Linda Harris and Tyann Blessington of U.C. Davis; and CWB staff members Dennis Balint and Dana Steindorf.

The first order of business was the approval of the minutes from the last Grades & Standards Committee meeting held on May 20, 2008. Mr. Turner made motion to approve the minutes as mailed, Mr. Carriere seconded the motion and it carried unanimously.

The next item on the agenda was Report from the Food Safety Working Group. Chairperson Keiper stated that over the past nine months the California Walnut Board has been working to realign issues that relate to post-harvest activities, specifically research that relates to post-harvest, by moving that away from the Production Research Committee over to the Grades & Standards Committee. Out of that realignment, the Food Safety Working Group was established and has met twice over the past few months. Chairperson Keiper introduced Mr. Don Barton, Chair of the Food Safety Working Group to give an overview of those two meetings.

Mr. Barton stated that the Food Safety Working Group met twice in August. During the first meeting the group talked about the issues facing our industry, especially in light of the intense scrutiny the nut industry in general is under these days. One thing universally understood is that we cannot allow our industry to go down the same path that the almond industry went down a couple of years ago; there is no acceptable way of pasteurizing walnuts. The main focus of the working group is to conduct additional research in *Salmonella* and *e.coli* in walnuts, examining the physical characteristics of walnuts that have prevented our industry to

date from a recall. The group would also like to focus on Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP) for our processors and growers.

Chairperson Keiper stated that the Grades & Standards Committee looks at this exercise by the Food Safety Working Group as being pro-active for the industry by trying to increase knowledge of the path that products go through and providing educational and communication outreach from the California Walnut Board to make sure that all industry members are well informed on GMP and GAP practices.

The next item on the agenda was Food Safety Research Proposal. Chairperson Keiper explained that at one of their recent meeting, the Food Safety Working Group met with Dr. Linda Harris and Tyann Blessington of UC Davis who have conducted a lot of work on *Salmonella* in the nut industry. Dr. Harris made a presentation to the working group on the behavior of *Salmonella* in inoculated walnuts and was asked by the working group to make a proposal to be presented to the Grades & Standards Committee for consideration on some research that they would like to conduct during the 2009 harvest. Chairperson Keiper introduced Dr. Linda Harris to make her presentation.

Dr. Harris went through her presentation slides. She explained that over the past 15 years or so *Salmonella* outbreaks have occurred in many "low-moisture" foods, including almonds, coconut, peanuts and peanut butter, chocolate, milk powder, spices, cereal and dry pet food/treats. Low-moisture is defined as anything shelf stable because it is dry. Walnuts have not been associated with any outbreaks of food borne illness; there has not been a recall associated with identification of a pathogen in walnuts. In her opinion, Dr. Harris believes that walnuts are in a secure position in the food industry and it is an ideal time to investigate and document why that might be.

The strategy of Dr. Harris' proposed research project is to systematically evaluate the steps in the production, harvest and handling of California walnuts for impact on levels of introduced *Salmonella*. The first objective will be to determine the behavior of *Salmonella* on walnuts during hulling; then they will determine the fate of *Salmonella* on walnut shells during drying, storage and bleaching; the third objective will be to determine the ability of *Salmonella* to transfer from the shell surface to the kernel during the shelling process; and finally, they will determine the behavior of *Salmonella* on walnut kernels. Dr. Harris stated that the strategy is to collect samples that are as well-defined as possible; she is hoping they can work with hullers where they can identify the variety and how the product has been handled.

Dr. Harris presented some slides on her findings on *Salmonella* introduced to walnut hulls in the laboratory. She found that there was quite a mixture of results. She used water coming from a hulling facility and well water; adding hulls to well water produced a slow steady decline of *Salmonella*. Other findings produced in the laboratory include: whole hulls left in high moisture conditions, growth can occur on the outside of the hull; if the whole hull is dried out, *Salmonella* will not grow; if you grind the hull and add *Salmonella*, you will get growth after a couple of days. The data suggests that hulls sitting around in a high moisture environment could provide a means for *Salmonella* to multiply. Dr. Harris is hoping to work with one or two hullers to define what is going on at the huller level; what the time frames are that a walnut would go through the system; what opportunities exist for cross-contamination; what kind of a set up would reduce *Salmonella* during the normal hulling process.

Dr. Harris stated that *Salmonella* usually dies during a drying process; how much it dies depends on the speed, the temperature and other conditions. Mimicking the drying process in the laboratory proved to be difficult; they simply put individual walnuts in an incubator for 48

hours at 110 degrees Fahrenheit. What they found at the lower level of inoculation was they did not get the die-out expected. They are going to work with Dr. Jim Thompson who has a model laboratory dryer that could mimic more closely what transpires in a commercial dryer.

Dr. Harris presented slides on the laboratory experiments on inoculation of dehydrated walnut kernels at three different levels. The lowest level of inoculation was closest to real life situations; the good news is that at that level, there was a fairly rapid die-off, however, *Salmonella* survives well on kernels over time. Temperature does not seem to greatly affect the *Salmonella* levels on walnut kernels.

Chairperson Keiper stated that the industry has enjoyed many decades without any issues in the food safety arena. One thing we do not have, however, is any documented data on what occurs from the huller to the customer that results in a die-off of *Salmonella*. The objective of this Committee and the Food Safety Working Group is to develop such data along with food safety workshops and educational materials. We are looking at this from a pro-active standpoint, not a reactive standpoint as some other industries have found themselves in.

Mr. Balint asked Dr. Harris, if there is a favorable outcome, what the poster title will state. Dr. Harris stated that this project is not meant to quantify what the incidence of *Salmonella* is in walnuts. They are hoping to determine where *Salmonella* is going to be reduced in the system and where it has the potential to be introduced or to increase. The title would be along the lines of what was used in the proposal, "*A Hazard Assessment of California Walnuts for Salmonella and Other Foodborne Pathogens.*"

Chairperson Keiper asked Dr. Harris if she would expect to come up with some protocols that the industry could put into GMP and GAP. Dr. Harris stated that her goal in doing this work is to assist the industry. Mr. Balint asked if all the samples collected will be non-organic. Dr. Harris stated that she is not sure. Most of the work they are doing requires collaborators. They will use one or two varieties. Mr. Balint asked that the variety not be identified so that the work is not variety specific. Dr. Harris recommended that they know the variety they are working with because they may need to build on the data in the future. She does not anticipate a significant difference in results by variety.

Mr. Balint asked about the stages of the proposed project. Dr. Harris stated that they will mimic inoculation during the hulling process and follow it through cracking, drying and storage. Mr. Barton stated that, as he understands it, there is data from Dr. Harris' research that indicates the walnut hull is not a hospitable environment for *Salmonella*; that the shell is more hospitable, but there is die-off on the shell; and the kernel is a hospitable environment and die-off is slower. This data is not unique to walnuts; it is universally true for just about every nut. Mr. Barton believes that the missing link is step three – is there transfer of *Salmonella* from the shell to the kernel in the shelling process? If it is determined through this research project that there is not significant transferability, we could then say as an industry that walnuts have unique characteristics that inhibit growth of *Salmonella* through the process. Therefore, it all comes back to GMPs and the primary focus of the Food Safety Working Group's efforts should then be on GMPs and GAPs.

Mr. Duane Lindsay asked if it happens that the research indicates that we do have a problem, is it reportable to FDA. Dr. Harris stated that the university works hard to protect researchers and her data does not go to FDA.

Chairperson Keiper asked when the Committee could expect to see results of the proposed research project. Dr. Harris stated that the goal is to be finished by summer. Chairperson Keiper thanked Dr. Harris for her presentation and called for a five minute break in the meeting.

The Committee reconvened after excusing Dr. Harris and Ms. Blessington from the meeting. Chairperson Keiper explained that as an industry, we have not had a problem with *Salmonella* in the past, however, food safety is such an important issue now that we need to step up and define some better GAPs and GMPs and educate our industry on food safety through workshops. Dr. Harris has been doing work with walnuts for four or five years without any input from our industry up to this point. We are at a place where we know we do not have a problem as an industry with *Salmonella*, but we do not know the reasons why. Mr. Ford stated that the Committee and the Board have to be prepared and think about the consequences if the results of the research show us in a negative light. Mr. Balint asked Ms. Wray if the results of the research, because it is funded with federal money, is public information under the Freedom of Information Act if it is published? Ms. Wray agreed that it would be public information if it is published.

Mr. Turner commented that the walnut industry is getting tainted by problems in the other nut industries. He believes that doing the research is a pro-active approach that will appeal to customers.

Mr. Turner made motion to adopt the research proposal from Dr. Linda Harris for the amount of \$40,482. Mr. Crain seconded the motion and mentioned that he discussed the proposal title with Dr. Harris during the break and she is willing to work with us on altering the title of the project. The motion carried unanimously.

The next item on the agenda was Food Safety Workshop. Chairperson Keiper stated that one activity of the Food Safety Working Group has been to develop communication and educational programs that would cover GMPs and GAPs for the industry. The California Walnut Board would work in conjunction with DFA to put together a Food Safety Workshop following annual winter meetings in February. Some of the topics would include traceability, GMPs focusing on rodent and bird control, plant sanitation, sampling techniques, and updates on research and legislative updates.

Mr. Ford commented that the Food Safety Workshops will be held on the Friday following the California Walnut Board and DFA annual meetings at the Monterey Plaza. He anticipates that the attendees will be CEOs, executives, and owners of processors. Each workshop will entail 20 minutes of presentations, 15-20 minutes for questions and then the next workshop will begin.

Chairperson Keiper asked the Committee for approval to move forward to conduct the workshops and pay for them with the Grades & Standards budget. He stated that the budget should be minor; just some brochure materials or CDs for the attendees, and travel for speakers (if necessary). A discussion ensued about the Board covering the cost of handler attendees. The Committee agreed that, in order to achieve maximum attendance, they will recommend to the Board that they pay for workshop registrations, from the Grades & Standards research budget, for up to two attendees from each handler. Mr. Ford stated that the registration fees for the DFA workshops last year were \$125 per person.

Mr. Crain made a motion to recommend to the Board the funding from the Grades & Standards research budget of a CWB sponsored food safety workshop in conjunction with DFA at the annual winter meeting in February at the Monterey Plaza Hotel and that the Board (through the Grades & Standards research budget) pay the registration fee for up to two attendees from each handler member. Mr. Lindsay seconded the motion and it carried unanimously.

The next item on the agenda was Food Safety Legislative Update. Chairperson Keiper stated that there has been some food safety activity on the House side with HR2749 passing at the end of July and a companion bill similar to that one passing in the Senate (S510) recently. GMA, which represents a lot of food processing and manufacturing companies across the United States, got behind the two bills and endorsed them. Some of the issues coming out of the two bills are a stronger emphasis on hazard analysis and preventative controls, access to records by FDA, third party labs and accredited facilities, increased inspections by FDA, surveillance that enhances food safety on food borne illnesses, traceability, mandatory recalls by FDA, and registration of facilities with fees from \$500 up to \$175,000.

Mr. Ford presented a press release from FDA that states that if a processor has a Class One recall (i.e. a positive pathogen test or a mislabeled product that is an allergen) they have 24-hours to go to the FDA website and enter the information on the new system. This is effective the end of September. If the product has left the plant, the processor must report it. If the processor still has control of the product, the product must be destroyed, and it is not reportable.

Under other business, Mr. Balint mentioned that FDA and USDA have launched a joint website to highlight the latest food safety and recall information to consumers.

The time and place of the next meeting will be determined at a later date. There was no need for Executive Session. Hearing no further business, Chairperson Keiper adjourned the meeting at 3:55 p.m.