



# **National Mango Board**

## **Issues And Crisis Response Guide 2016**



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## **INTRODUCTION**

An issue or crisis involving mangos has the potential to affect a significant number of National Mango Board (NMB) members directly and to undermine the industry as a whole. This became a very real fact for the industry during the 2012 voluntary recall of mangos in North America and subsequent government reports and media coverage regarding the food safety concerns. However, a rapid, coordinated response can help ensure that NMB and its members are able to respond to issue or crisis with accurate information and in such a way that helps safeguard the health and safety of consumers, and while helping NMB achieve its goals of increasing the consumption of mangos in the United States.

The 2016 Issues and Crisis Response Guide is intended to assist NMB and its members in responding to potential crisis situations by providing a set of key guidelines, reminders and considerations that are important in managing an issue effectively.

These guidelines for responding to an issue, recall or other event are especially important for an industry as complex and diverse as the mango industry. With several countries represented, NMB can best serve the mango industry by providing clear, concise information representing the mango industry in a manner that does not escalate the issue or crisis.

Additionally, it is important to note that in the event of a crisis, NMB's role is to represent the industry as a whole, which includes representing the entire industry in public outreach and helping coordinate an effective response in partnership with the members of the mango industry, especially those directly affected by the issue.

While NMB cannot speak or act on behalf of individual NMB industry members, NMB can and will represent the entire industry with key audiences such as consumers, trade and national media, retail and foodservice customers and others; distribute accurate, timely information to its members and key audiences; and assist industry members as appropriate. NMB also will facilitate dialogue between its members and the appropriate government agency contacts and others within the industry to help ensure as swift a resolution as possible.

## **DEFINITION OF A CRISIS**

In general, a crisis will be defined by its interference with the mango industry's daily operations, its impact on the industry's profitability and/or its effect on the product's image. It is assumed that anything that has such a basic impact on the industry will either soon be visible to the media or whose impact has been amplified due to media coverage of the issue. As such, a crisis also is defined as a problem affecting the mango industry that has received or is likely to receive media attention that could negatively alter the consumer's perception and consideration of the fruit.

## **PRIORITIES DURING A CRISIS**

The *first priority* in any emergency is the safety and protection of U.S. mango consumers. However, issues that affect consumers outside of the United States should be monitored for their potential to affect the U.S. market or to result in media coverage in the United States.

The *second priority* is to provide a disclosure of completely accurate information about a crisis situation and the mango industry's part in it. This might include:

- Situation and facts as can be determined by NMB and/or its members.
- NMB and/or its members' responsibility in communications regarding the situation.
- NMB and/or its members' action plan to assist in the resolution and prevent further occurrences.

The *third priority* is compliance with all relevant federal, state and local laws and regulations.

The *fourth priority* is providing accurate information about the mango industry and help the industry continue to do business in the United States.

The *fifth priority* is protecting the wholesome image of mangos.

The *sixth priority* is to learn from a crisis experience and incorporate the lessons into this plan.

It has been shown in virtually every recent example of companies and industries involved in a crisis, including the 2012 recall of mangos, that taking the appropriate action to protect consumers quickly is the most consistent factor contributing to a long-term, successful resolution of a crisis.

## CRISIS RESPONSE TEAM

An important step in preparing for a crisis is to have a core crisis team in place. Depending on the specific issue, others may be added, according to need. During a crisis, the team should have frequent contact and each member should be prepared to forego his or her normal routine and outside interests.

Some key roles among the Crisis Response Team include:

- **NMB Executive Director**, who will serve as the lead in coordinating NMB and industry-wide response. The NMB Executive Director also will be available to counsel industry members on their company's particular situation and how best to respond from an industry perspective.
- **NMB Director of Marketing**, who will lead efforts to develop key messages in response to a crisis in partnership with the NMB Executive Director as well as other communication materials to be customized for outreach to industry, retail and foodservice customers, and others.
- **NMB Director of Research**, who will provide counsel regarding food safety issues in coordination with NMB member companies and third-party experts.
- **NMB Director of Operations**, who will provide administrative support to NMB staff, including coordinating meetings, conference calls and translations.
- **NMB USDA Contacts**, who will review and approve all written materials distributed by NMB to ensure that they are in alignment with U.S. Department of Agriculture (USDA) requirements for agriculture promotion groups such as NMB.
- **PR Counsel**, who will advise NMB staff and, as appropriate, Crisis Response Team members on how best to respond to a crisis, as well as provide support in drafting communications materials for media, website, social media channels, etc.
- **Legal Counsel**, who will ensure NMB's actions and communications comply with all applicable regulations and requirements.

- **NMB Board Members**, who will provide counsel to NMB staff regarding a crisis' impact on the mango industry, and help distribute and amplify NMB's information and position regarding an issue or crisis.

## **CRISIS PROCEDURES**

Provided in this section are procedures to manage crisis situations as effectively as possible, including identifying a crisis, creating a response, and communicating to NMB's various audiences.

The Crisis Response Team will follow these nine steps during a crisis situation:

### **Step 1: Assemble and Mobilize the Crisis Response Team**

If a potential crisis presents itself, NMB staff should be contacted immediately for evaluation and information gathering. As soon as word of an emerging or potential crisis situation reaches the NMB staff, they will:

- Determine the nature and severity of the crisis. (See Crisis Check List in the Tools & Resources Tab.)
- Contact each member of the Crisis Team at the first indication of a crisis. (See Crisis Response Team List.)
- Notify the USDA Technical and Government Liaisons, Jeanette Palmer ([jeanette.palmer@ams.usda.gov](mailto:jeanette.palmer@ams.usda.gov) // 202-720-5976) and Hakim Fobia ([hakim.fobia@ams.usda.gov](mailto:hakim.fobia@ams.usda.gov) // 202-720-4835).
- Assign one or more team members to contact other key parties and companies involved in the situation or who could be affected.
  - Provide key parties and companies contacted with pertinent information about what, if any, action they may need to take.

### **Step 2: Gather Information and Assess the Situation**

The first action is to gather an accurate overview of the events that have taken place to date, assess the situation, and separate facts from rumors and speculation.

The NMB Executive Director will assign one or more of the team members or their designee(s) to obtain the information on the crisis briefing worksheet (See Crisis Briefing Worksheet in the Tools & Resources Tab) and reach out to government officials, affiliated organizations, etc. to compile information (See Crisis Fact Gathering Guidelines in the Tools & Resources Tab). They must relay this information to the Crisis Response Team as their highest priority.

The team should fully assess what caused the event and the potential impact of the situation, including:

- Worst-case scenario and worst-possible outcome?
- What would be the best solution?
- What action or component of the crisis event does NMB have the best opportunity to influence?
- What action or component of the crisis event must be managed by industry members directly or indirectly affected by the event?

### **Step 3: Activate the Team**

If the situation is at crisis level, the Crisis Response Team will meet or hold a conference call to do the following:

- The NMB Executive Director will facilitate the team's activities.
- Review the facts of the crisis at hand. (See Crisis Briefing Worksheet in the Tools & Resources Tab.)

- Develop an action plan, including:
  - Identify needed/missing information, assign person(s) to gather
  - Develop initial communications to members
  - Develop/shape key messages for media and other stakeholders
  - Identify NMB spokesperson
  - Identify on-site crisis manager, if appropriate
  - Work with affected industry members to align company and NMB messaging as appropriate
  - Line up third-party spokespeople (See Contacts in the Talking Points Tab and on each Issues page)
  - Establish media monitoring
  - Review/assign responsibilities
  - Schedule next meeting and meet frequently

In activating the Crisis Response Team, it is important to ensure that the team and NMB staff are prepared to handle inquiries appropriately to help ensure that accurate information is being provided to key contacts. Following are the recommended steps:

- When a call is received, the NMB staff member answering should ask the name and organization of the person calling.
- If the call is a member of the media, a message should be taken regarding the following:
  - Name of the media outlet
  - Subject
  - Deadline
  - Call-back number
- All messages from the media should be given to the NMB Executive Director, who will respond to the call or delegate it as appropriate.
  - Delegation may include determining that inquiry should be answered by the company affected as NMB is not able to speak or act on behalf of individual industry members.
- If the NMB Executive Director is not in the office, media messages should be given to the NMB's Director of Marketing, who will determine who should handle the call.
- Messages from retail or foodservice customers should be given to NMB Executive Director or Director of Marketing; they will respond to the call or delegate it as appropriate.
  - Delegation may include determining that inquiry should be answered by the company affected as NMB is not able to speak or act on behalf of individual industry members.

**NMB Members:** The above recommendations assume that the calls are being received by NMB. However, these recommendations can also be adopted for use by a company that is directly or indirectly affected by a potential crisis. If a member company receives a media inquiry about an industry issue or crisis, it is recommend that they request the reporter's information (see above) and notify the NMB Executive Director to help ensure accurate information is shared with the media and other members.

#### **Step 4: Determine a Course of Action**

This step is important because it ensures NMB and its industry members appear united by delivering one clear message in a timely manner.

Based on a review of the situation, discuss the potential vulnerabilities that exist. It is critical to be prepared for the worst. Consider such factors as media interest to date and potential interest, consumer risk factors, and other potential public issues.

The Crisis Response Team should then take steps to:

- Remove the source of the crisis: The source and substance of the issue must be dealt with. If there is a pathogen linked to fresh mangos, then it must be traced to determine cause. If there is a threat to employee or community safety, it must be addressed in an appropriate manner.
- Contain the problem: In the best scenario, the situation is contained locally, avoiding damage to the mango industry's overall credibility or reputation.
- Communicate honestly and factually: Keep key audiences informed of the NMB and/or the mango industry's actions. Also, correct factual errors or misinformation immediately. Use the information gathered to develop messages tailored to each audience.

A crisis is best contained by promptly providing accurate information to all of the organization's audiences and the influencers who communicate with those audiences. Once the facts of the crisis have been confirmed, the Crisis Response Team should identify all audiences that could potentially be affected and designate communications responsibilities to individual team members (See Key Audience Outreach Check List in the Tools & Resources Tab).

Audiences may include:

- Consumers
- Retailers and foodservice distributors
- Industry members
- Packers / shippers
- Importers
- Growers
- Vendors
- Business partners
- Media
- Third-party organizations / foreign mango organizations
- Regulatory agencies
- NMB media RDs and blog/media partners

There are a number of communications methods that can be used to reach these audiences, including:

- Media communications such as stand-by statements, news releases, fact sheets, media alerts and press conferences.
- Consumer communications such as consumer-specific statements distributed by emails, website updates, social media channels (e.g.; Facebook, Twitter, etc.) and question and answer documents.



- Member and related industry communication such as statements sent via email.
- One-on-one communications with key individuals (e.g., expert consultants, government authorities, etc.).

With the media, the advantages and disadvantages of taking a proactive stand will be evaluated, with special input from public relations counsel. In the preparation of media inquiries, public relations counsel will develop questions and answers, which will then be reviewed and approved by NMB's Executive Director.

Additionally, NMB Executive Director and Director of Marketing will be responsible for responding to media inquiries on behalf of the mango industry as a whole. In instances where media or others are requesting information specific to members of the industry, NMB will direct inquiries to that company or organization. As appropriate, NMB will work with that company to respond to the inquiry with accurate, timely information.

### **Step 5: Develop Statement for Release and Secure Approvals**

At the outset of the crisis and at various points throughout the acute stage of the crisis, it will be necessary to develop a written statement on the situation, to be provided to the media in writing or verbally. The Crisis Response Team, with input from the public relations counsel, will decide at what points statements are to be issued or if individual interviews with media are more appropriate. Any statement developed will represent the position of the entire mango industry and will provide only accurate, verifiable information.

NOTE: Any written or verbal statements intended for media placement must be approved by USDA. Send to Jeanette Palmer ([jeanette.palmer@ams.usda.gov](mailto:jeanette.palmer@ams.usda.gov) // 202-720-5976) and Hakim Fobia ([hakim.fobia@ams.usda.gov](mailto:hakim.fobia@ams.usda.gov) // 202-720-4835). Additionally, pertinent materials will be translated from English to Spanish and distributed in a timely manner. Timing of translations will be dependent on the length and complexity of the information.

The main points to be included in the statement will be developed by the Crisis Response Team in consultation with the public relations counsel. Initial communication with the media should be limited to the following:

- What happened?
- Where and when did it happen (as specific as can be determined)?
- How and why did it happen (without speculation)?
- What mango products (if any) were involved? What is the nature of these products and how are they typically used?
- Factual assessment of the current situation.

The public relations counsel will draft the statement with input from the Crisis Response Team. The NMB Executive Director should have final approval before the statement is sent to USDA for review and approval. As necessary, the NMB Executive Director will solicit input from other Crisis Response Team members.

### **Step 6: Identify and Prepare a Media Spokesperson**

NMB can best serve the mango industry when it relies on a single spokesperson to communicate with media during a crisis. This builds relationships with journalists and helps ensure that NMB is communicating a clear, consistent message on behalf of the mango industry. In many cases, the NMB Executive Director or an appropriate board

member will serve as the spokesperson. Public relations counsel also can help fill this role by acting as “filters” for media requests.

In circumstances where NMB cannot respond on behalf of a mango industry member regarding the crisis’ impact on their business or the company’s actions, NMB and the public relations counsel can provide support to the company to develop an appropriate response within the context of NMB’s responsibilities for promoting and providing accurate information about the mango industry.

The person who serves as a spokesperson should:

- Be articulate, intelligent and credible.
- Appropriately represent NMB and the mango industry.
- Be able to speak with authority and credibility on the actions NMB and the mango industry are taking to resolve the crisis.
- Have the appropriate composure and training to handle challenging situations, including aggressive, confrontational media interviews.
- Consider responding to media inquiries as a priority.
- Concentrate on communicating NMB and the mango industry’s key messages related to the crisis and leave specific scientific questions to appropriate experts.
- Be in constant contact with the Crisis Response Team for statement updates and new information.

### **Step 7: Keep a Pulse on Rumors and Speculation**

During a crisis, rumors and speculation about a crisis becomes much more active, and can be a real source of misinformation. NMB and the Crisis Response Team should remain informed of rumors and speculation. NMB, in consultation with the Crisis Response Team, public relations counsel and the USDA, will determine how best to ensure that publicly reported information is accurate. The goal of publicly communicated information shared with mango industry, the media or others is to ensure that misinformation, speculation and rumors do not cause unnecessary damage to the mango industry’s business and/or reputation.

### **Step 8: Evaluate and Re-evaluate**

After external attention on the crisis subsides, it is important to conclude the project by collecting and recording relevant information and insight gained during the crisis. A thorough post-crisis review not only ensures an event has been put to rest, but also helps prevent a repeat of the crisis.

The following actions should be taken at the conclusion of the crisis:

- Consulting with senior management and the public relations counsel, determine a post-crisis schedule to coordinate follow-up and analysis.
- Appoint a post-crisis closedown team, including a spokesperson to handle follow-up media, a team member to manage crisis analysis, and a logistics contact to coordinate follow-up efforts.
- Restore normal, day-to-day operations and regular communication activities.
- Implement appropriate techniques for evaluating and measuring the effectiveness of the crisis communications program:
  - Gather all documentation and media coverage information for review, analysis, and after-event reports and recommendations.

- Develop a list of all people (e.g., journalists, third party advocates and critics) and organizations (e.g., regulatory, industry) that played a role in the crisis situation.
- Conduct an internal survey within the team and senior management of the overall effectiveness of the communications.
- Consider a baseline consumer research to gauge public opinion and impact of the crisis on sales.
- Review the regulatory environment if necessary/appropriate.
- Create summary report with follow-up recommendations.
- Make report, or a synopsis of the report, available to internal staff and members.
- Construct a standby summary report for the spokesperson to use with the media and industry to describe the overall outcome of the crisis. If appropriate, release the report to these audiences and make it available online.
- Make goodwill contact with all parties involved in the crisis (via letter or personal contact).
- Provide relevant information to the public relations counsel to be integrated into future versions of the Issues and Crisis Response Guide.

## CRISIS CHECK LIST

### What kind?

- Natural disaster, significant crop loss/damage due to natural disaster
- Criminal activity
- Illness or sickness speculated to be caused by mangos
- Consumer or union picketing
- Environmental
  - o Describe type:\_\_\_\_\_
- Aberrant employee(s)

### Response of person first aware of the problem:

- Contact appropriate authorities (e.g., police, fire, etc.)
- Contact NMB Executive Director

### Response of mango industry member:

- Make sure all steps are taken to ensure the safety of employees and customers.
- Ask the following questions to decide if notification of next level should be made:
  - o Is there serious, life-threatening injury or illness involved, or is it likely to occur?
  - o Is there significant property damage?
  - o Is there media interest, or is likely that there will be media interest?

### ***If "NO"***

- Handle the problem
- Notify NMB Executive Director and outline measures to be taken

### ***If "YES"***

- Proceed with appropriate emergency measures
- Notify NMB Executive Director of the situation and request assistance

### Response of public relations counsel and NMB leadership:

- Convene immediately via conference call or meeting
- Ask the following questions to decide if notification of the crisis team should be made:
  - o Are there any hidden threats to public health or safety for consumers, the industry, its members, its employees or property?
  - o Is there potential damage to the mango image?
  - o Does the problem warrant the involvement of the Crisis Response Team?

### ***If "NO"***

- Complete the resolution of the problem
- Report incident to the crisis team through regular "non-emergency" channels

### ***If "YES"***

- Begin contacting all members of the Crisis Response Team
- Put crisis response plan into action

## **FACT GATHERING GUIDELINES**

This section provides a series of questions to consider asking to become more informed about the situation and be able to prepare the best plan of action and the potential external and internal response.

### **General information:**

- How did you learn about the incident (e.g., member, media, public health official)?
- What happened (e.g., person became sick, testing revealed contamination, etc.)?
- Where did the incident occur (e.g., restaurant, retail outlet, etc.)?
- When did it happen?
- What steps have been taken to contain the situation (e.g., recall, public notice, etc.)?
- Who has been notified (e.g., USDA, public health officials, media, etc.)?
- Who is the point of contact at each agency and industry operation?

### **If the incident involves testing at inspection site:**

- Has any product left the terminal?
- How much product is involved?
- Do you know where the affected product is?
- Have customers been notified?
- Does the incident warrant consideration of retail and/or foodservice notification?
- What, if any, actions are being taken by U.S. Food and Drug Administration, USDA or other agency?
- Who is the spokesperson? Is there a statement?
- Is the media involved?

### **If the incident involves human illness:**

- Has anyone died? Has anyone been hospitalized? What is their condition?
- Who is heading up the investigation into the source of the contamination?
- Has a common source been identified?
- Is the media involved?
- Are any activist groups involved?
- Has a lawsuit been threatened or filed?

### CRISIS BRIEFING WORKSHEET

The Crisis Response Team should use the grid below to help assess the crisis situation. Based in part on the information gathered here, the team will assess what caused the event and the potential impact of the situation. This information will help guide the thinking and steps to take place in crisis identification and response preparation.

<b>DATE:</b>
<b>NATURE OF INCIDENT (Who, what, where, when, why, how):</b>
<b>WORST CASE SCENARIOS:</b>
<b>WORST PROBABLE OUTCOMES:</b>
<b>TRIGGER EVENTS:</b>
<b>BEST PROBABLE OUTCOMES:</b>
<b>ACTIONS TO INFLUENCE:</b>
<b>PEOPLE INVOLVED/TO BE CONSULTED:</b>

**NOTIFICATION LIST**

The NMB staff will use the below notification list to help determine which audiences and key contacts need to be informed of a potential, current or ongoing issue that could affect the mango industry.

Audience	Questions to Consider to Determine Outreach	Do We Need to Contact?		Owner
		YES	NO	
Industry Members	<ul style="list-style-type: none"> <li>• Will situation cause anxiety for industry members?</li> <li>• Do some or all members need to be notified?</li> <li>• Will this situation receive coverage in the media?</li> <li>• Are there current or future programs that could be affected by this situation?</li> <li>• Will members be asked about this by others outside of the industry?</li> <li>• Will members resent not being told?</li> <li>• How much damage are rumors and misinformation creating?</li> </ul>			
Government Agencies and Health Officials	<ul style="list-style-type: none"> <li>• Is this a public health or environmental issue?</li> <li>• Is a government agency already involved or investigating the matter?</li> <li>• Are there concerns regarding local, state, federal or international regulations or requirements?</li> <li>• Is government action required or requested?</li> </ul>			
News, Trade Media and Social Media	<ul style="list-style-type: none"> <li>• Will the media get information on the situation whether the company gives it to them or not?</li> <li>• What information does the media already have and how did they receive it?</li> <li>• Are consumers or media discussing this in social media channels?</li> <li>• Will industry reputation be affected unless information is aggressively released to the media?</li> <li>• Will providing information online or through social media improve or worsen the situation?</li> </ul>			
Customers and Consumers	<ul style="list-style-type: none"> <li>• What do they need to know about the source of the problem?</li> <li>• What actions do they need to take to protect public health?</li> <li>• What steps are members or the industry taking to resolve the situation?</li> <li>• Who can they contact for more information?</li> </ul>			

<p>Collaborators</p> <ul style="list-style-type: none"> <li>• Investigators</li> <li>• Consultants</li> <li>• Opinion leaders</li> </ul>	<ul style="list-style-type: none"> <li>• Do collaborators need to be notified?</li> <li>• Will the incident impact relationships with existing or potential collaborators?</li> <li>• Will the situation create uncertainty?</li> <li>• How will the collaborators communicate with their key audiences?</li> <li>• Will collaborators be contacted via a third party (e.g., media) to comment on the incident?</li> </ul>			
<p>Industry Trade Associations</p>	<ul style="list-style-type: none"> <li>• Do we want the organization to take a position on the issue? Or will they have to?</li> <li>• What information do we want the organization to share and with whom? Could it be an ambassador?</li> <li>• Will the organization help solicit input from NMB or third-party experts on the issue?</li> </ul>			
<p>Vendors</p>	<ul style="list-style-type: none"> <li>• Does the incident involve vendors?</li> <li>• Will the incident affect the vendors work on behalf of NMB and/or the industry?</li> <li>• Are there other entities that could have been impacted by the vendor?</li> <li>• Is the vendor prepared to communicate?</li> <li>• Will the situation create uncertainty in vendors' minds?</li> </ul>			



## COMMUNICATION TOOLS AND TIPS

**Objectives of these tips** - *How an organization handles itself in the midst of a crisis may influence how it's perceived for years to come*

- Understanding the role of media relations during a crisis
- Developing and emphasizing key messages
- Learning techniques for confident and controlled interviews
- Practicing interview skills and message delivery

### Role of Media in a Crisis

- From a communications perspective, handling the media is the most critical element
- When crisis strikes, media attention quickly turns to “feeding frenzy”
- In a crisis, the media are sneaky - their goal is to unearth any salient or salacious element that will advance the story line of the crisis
- Media is operating at a cross-purposes with the company or organization, which is trying to put the crisis behind it

### The Pros of Media Relations

- Vehicle to reach your target audiences
- Effective way to reach large numbers of people
- Shapes public opinion, providing “objective, third-party” endorsements
- More credible and affordable than advertising
- If you don't talk...others will

### Value of Good Media Relations

- Maintain solid reputation
- Establish trust and credibility
- Reach influencers, including customers
- Attract and retain employees
- Offer “your side of the story” in a controversy

### Who Are the Media?

- Lack of trust/skeptical
- Irreverent of authority and power
- Trained to get both sides of the story
- Under pressure to meet tight deadlines
- Are highly competitive; don't like to be beat
- Must tell the story with limited copy/airtime
- Report to editors who scrutinize
- Tend to change jobs frequently
- Rarely experts in a particular topic/industry

### What Media Expect

- To be the first to write the story
- Quick access to top executives and experts
- Data to prove trends/claims, such as company financials and industry statistics
- Help finding real-life case studies/people/companies to illustrate story
- Concise communications

### Role of Spokesperson - *The Executive Director is the spokesperson of the NMB*

- The spokesperson is the most credible source of information

- The spokesperson is the “face” of your company and the mango industry at the time
- The spokesperson makes your company and the mango industry “human”
- The spokesperson is key to achieving media relations objectives

### **Developing Key Messages**

- Decide three to five most important points you want to make, each in 10 seconds or less  
The fundamentals of early-stage key messages include:
  - What happened? (We are recalling...)
  - When and where did it happen? (It is limited to a particular PLU.)
  - What are you doing about it? (We are working to...)
  - Are there any threats to public health and safety?
  - Do not speculate
  - Be consistent
  - Be helpful and demonstrate concern for the people and property affected
  - Support with factual “proof points” where available - these may come into use more as the crisis unfolds

#### *Example of Key Messages*

More than 22 people sick, 2 hospitalized and one death (a 90-year old man who had health issues) from *listeriosis* – the source has been narrowed to a regional restaurant chain in Michigan and potentially to mango salsa, but not confirmed – this was one of the common foods eaten by the victims. An ABC news crew wants to interview someone from NMB about unsafe mangos in the restaurant supply chain and what the board is doing about it.

- Suggested Key Messages
  - The mango industry’s hearts go out to those affected by this food safety issue
  - Providing a safe product to the US consumer is the mango industry’s #1 priority
  - The NMB and its members encourage adherence to all USDA import requirements and is working with officials to get to the bottom of this outbreak

#### **Message Delivery** - *Know exactly what you want to say and how to say it!*

- Keep it simple, straightforward and sincere; don’t obscure the information
  - Reduce your main points to one sentence
  - Limit your answers to three sentences
  - Focus on short sound bites
- Prepare for the toughest questions

#### **Sticking to the Message** - *You’re not there just to answer the reporter’s questions, you’re there to make your points*

- Blocking – Halting the direction of the interview by saying:
  - “That’s not the way we look at it...”
  - “Let’s back up for a second...”
- Bridging – Use “connectors” to get to introduce your message
  - “Let’s look at that another way...”
  - “No. But I can say this about that...”
- Headlining
  - Make most important point first
  - Back it up with “proof points”
- Flagging - Emphasize YOUR most important points
  - “The most important thing to remember is...”
  - “I’ve talked about many issues today. It boils down to these three things...”

### **Media Do's**

- Talk about solutions not problems
- Be likeable, keep calm
- Use simple, direct answers (no jargon)
- Repeat messages
- Pause
- Use facts, figures, analogies
- Listen, don't interrupt
- Stay in your zone of expertise
- Stay positive

### **Media Don'ts**

- Don't underestimate the severity of the situation or its potential impacts
- Don't get cornered with "what if" or "yes/no" questions
- Don't use jargon
- Don't swear, use humor, or lose your temper
- Don't say "no comment"
- Don't go off the record
- Don't repeat the negative
- Don't guess or speculate – if you don't know, offer to find/get the information
- Don't lie
- Don't interrupt the interviewer
- Don't point fingers
- Don't fixate on the question
- Don't say it if you don't want to see it

### **Before the Media Opportunity: Understand the Story**

- Know the publication/program and interview format
- Determine story angle, participants and audience
- Review reporter's background/past coverage
- Prepare with key messages and a range of practice questions

### **Interviewee's Bill of Rights**

#### *You Have the Right to:*

- Know the topic, format, deadline
- Have time to answer the question
- Correct misstatements
- Use notes
- Record the interview

#### *You Do Not Have the Right to:*

- Know the questions in advance
- See the story in advance
- Change your quotes
- Edit the story
- Expect your view be the only view
- Demand an article be published, or not published

## **NATIONAL MANGO BOARD 101**

### **2015 - 2017 Strategic Planning Mission & Values**

**NMB Mission:** The mission of the National Mango Board is to increase consumption of fresh mangos in the U.S. through innovative research and promotional activities, while fostering a thriving industry.

#### **NMB Core Values:**

- We operate in total transparency for the good of the mango industry
- We are all inclusive of the mango industry and sensitive on issues affecting stakeholders
- We understand the industry through research and education
- We put the mango industry's interest over self interest
- We openly communicate within the mango industry
- We conduct business with integrity and respect
- We act as a united industry, dedicated to mango industry objectives

## **2015 - 2017 Strategic Planning Objectives & Strategies**

### **Strategic Priority 1:**

Direct to consumer marketing to increase mango consumption and awareness

- Education initiatives
- Consumer research
- Nutrition-focused messaging
- Multimedia strategies – print, social, etc.

#### **\*SMART Objectives:**

- **Increase fresh mango consumption from 2.87 lbs./person in 2013, to no less than 3.13 lbs./person in 2017; which is equivalent to 102,023,816 boxes in 2013, to no less than 113,958,328 in 2017.**
- **Increase the fresh mango industry value index from \$499,615,858 in 2013, to no less than \$569,216,320 in 2017.**
- **Increase the fresh mango market penetration from 7.23% in 2013, to no less than 9.4% in 2017.**
- Decrease the percentage of non-purchasers indicating they don't know how to select a ripe mango from 27% in 2013 to 22% in 2017. (A&U)
- Decrease the percentage of non-purchasers indicating they don't know what to do with a mango from 21% in 2013 to 17% in 2017. (A&U)
- Increase the percent of total respondents who think mangos are nutritious from 75% in 2013 to 83% in 2017. (A&U)
- Decrease the percent of non-purchasers indicating they don't think of mangos from 35% to 28% in 2017. (A&U)

#### **Indicators of Success:**

- Positive targeted impressions (consumer/nutrition); social audience; website visitors and share of voice.

### **Strategic Priority 2:**

Increase presence and sell-through of mangos at retail

- Education initiatives
- Retail promotions for whole and fresh cut mangos
- Ripe and ready-to-eat efforts
- Sustainability
- Data/insights
- Nutrition messaging
- Crop forecast

#### **\*SMART Objectives:**

- Increase fresh mango volume per store per week from 212 fresh mangos per store per week in 2013, to no less than 249 fresh mangos per store per week in 2017. (Nielsen-Perishables Group Fresh Facts, Mango Annual Performance Benchmark Report)

#### **Indicators of Success:**

- Number of mango ads in our set of ad tracking stores; number of stores impacted; number of demo events; number of stores with mango bins; volume movement increase due to NMB-funded promotions.

### **Strategic Priority 3:**

Increase presence and sell-through of mangos at foodservice

- Education initiatives
- Chef/operator engagement
- Foodservice promotions
- Fresh cut efforts
- Sustainability initiatives
- Data/insights

#### **\*SMART Objectives:**

- Increase mango penetration on foodservice menus from 15.4% in 2013 to 17.8% in 2017. (Menu Mines Research)

#### **Indicators of Success:**

- Foodservice media impressions; units impacted by promotions; volume movement due to promotions.

### **Strategic Priority 4:**

Generate knowledge through research efforts in support of the vision

- Health and nutrition research
- Varietal research
- Ripe and ready-to-eat efforts
- Quality focused research
- Sustainability
- Alternatives to hot water treatment
- Fresh cut
- Food safety
- Other research initiatives – includes research about processed mangos

#### **\*SMART Objectives:**

- Conduct research that results in actionable/applicable insights in areas of: nutrition and health, quality, food safety, sustainability, value added products, new varieties and other areas that advance the vision by 2017.

#### **Indicators of Success:**

- Projects funded and completed.

### **Strategic Priority 5:**

Enhance industry communication and preparedness to create a unified industry

- Education initiatives around quality, food safety, etc.
- Industry outreach and communication
- Reputation and crisis communication
- Sustainability efforts
- Outreach to processing facilities
- Crop forecast

**\*SMART Objectives:**

- Determine industry awareness and support for NMB and its programs and utilization of NMB industry tools with a baseline survey of those who service the U.S. market in 2015.
  - Increase awareness and support of NMB and its programs and utilization of NMB industry tools by X\*% by 2017.
- Update the NMB crisis and issues management plan annually in 2015-2017.
- Increase the number of industry members in support of the referendum to 80 percent in 2015 (previously it was 73% in 2010).
- Distribute Crop Report a minimum 50 times annually between 2015 and 2017.

**Indicators of Success:**

- Number of meetings/workshops/webinars hosted; industry members reached via meetings/workshops/webinars; new subscribers being added to the *Mango Connection* and Crop Report databases; website visitors to *www.mango.org/industry*; and impressions in trade media.

\*SMART = Specific, Measurable, Achievable, Realistic, and Timeframe

## **General Mango Messages**

### **Consumer Trends**

- Demand for mangos among current purchasers is substantial. Nearly all current purchasers surveyed by NMB plan to continue buying mangos.
- Consumers are more likely to eat mangos as an ingredient rather than just simply eating the tropical fruit by itself. For example, enjoying mangos at a restaurant or a friend's home.
  - With that in mind, NMB has created a wide variety of recipes for consumers – ranging from sweet to savory.
- Consumers who buy mangos like their flavor and believe that they are a nutritious, exotic fruit that is perfect for a special treat.
  - This makes mangos a perfect ingredient in recipes for entertaining. NMB's Mini Cupcakes with Mango Buttercream recipe is a great example of fun twist on a familiar recipe.

### **Flavor**

- The exotic flavor of mangos gives dishes and drinks an unsurpassed freshness, reminiscent of tropical vacations and sun-drenched beaches. Like a vacation in your kitchen.
- Mangos add a burst of flavor to all kinds of dishes, year round. Their sweet, unique flavor is versatile and can make any dish exceptional, no matter the occasion.
- For the most robust flavor, use fresh mangos to make your own puree.

### **Year-Round Availability**

- Mangos are one of the world's most popular fruits and are available year-round, so you can always get your hands on a perfect mango.
- Six varieties of mango make up the bulk of what is available in the United States. Because each variety comes into season at a different time of year, you will always find a mango in your produce aisle.
- While there are more mangos in the market during the summer than any other season, this tropical fruit can bring that burst of sunshine to your table any time of year.

### **Selecting**

- Color is not always the best way to judge a mango's ripeness. Simply squeeze it gently. The mango should give slightly, but not be too soft. Similar to a ripe peach or avocado.
- A firmer mango would be a good choice if you do not plan to eat it for several days.
- Keep unripe mangos at room temperature. Never refrigerate mangos before they are ripe.

### **Preparing/Usage**

- A mango has one, large seed in the center of the fruit. By simply cutting off the sides of the mango, you can access the flesh and slice, dice, or puree as needed.
- The flavor of mango complements many foods including grilled meats, such as chicken, pork and lamb and other fruits such as coconut, pineapple and berries.

### **Nutrition**

- One cup of mango provides 100% of your daily vitamin C and 35% of your daily vitamin A for 100 calories.
- One cup of mango also provides 12% of your daily dietary fiber requirement.



- Mangos are a true superfruit, containing over 20 different vitamins and minerals and each serving is fat-, sodium-, and cholesterol-free.

#### “Slice and Scoop” Cutting Method

Always wash the mango before cutting and use a clean knife and cutting board. The slice and scoop method is an easy way to cut a mango.

- 1) Stand the mango on your cutting board stem end down and hold. Place your knife about ¼-inch from the widest center line and cut down through the mango. Flip the mango around and repeat this cut on the other side. The resulting ovals of mango flesh are known as the “cheeks.” What is left in the middle is mostly the mango seed.
- 2) Cut parallel slices into the mango flesh, being careful not to cut through the skin.
- 3) Scoop the mango slices out of the mango skin using a spoon.

#### Sustainability of Importing Mangos

- Mangos are grown in tropical regions where they thrive in sunny, consistently warm climates. This means the majority of mangos consumed in the U.S. are imported with care from countries such as Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru.
  - This is very similar to produce such as bananas, coffee and other foods that can only be grown in certain regions.
- The mango industry uses the most effective and efficient means for distributing fresh mangos.
- The mango industry could have a positive impact on carbon dioxide levels due to mango groves that contribute to carbon sequestration, according to our first Sustainability Assessment.

## **Frequently Asked Questions**

### **What is the National Mango Board's vision?**

To bring the world's love of mangos to the United States.

### **What is the National Mango Board's mission?**

The mission of the National Mango Board (NMB) is to increase consumption of fresh mangos in the United States through innovative research and promotional activities, while fostering a thriving industry.

### **What is the National Mango Board?**

NMB is an agriculture promotion group supported by assessments from both domestic and imported mangos. The board was created to drive awareness and consumption of fresh mangos in the United States. NMB works toward this mission through three core programs: marketing, research and industry relations.

Mango availability per capita has increased 38 percent since 2005 to an estimated 2.59 pounds per year in 2015. Mango import volume for 2015 was 93 million boxes. According to Consumer Research done by NMB in 2013, 45 percent of U.S. customers purchased mangos within the past 6 months.

### **Why is the National Mango Board trying to promote mangos in the United States?**

NMB likes to think of mangos as the soccer of fruit. They are one of the world's most popular fruits, but they're not yet as well known among U.S. consumers. It is the board's mission to show U.S. consumers why the rest of the world loves mangos!

### **Where is the National Mango Board headquarters located?**

Orlando, Fla.

### **Why is it located there?**

Key staff members live in Orlando, Fla.

### **Who are the board members?**

It is an 18 member board consisting of a First Handler, Importers, Foreign Producers and Domestic Producers. Each position comes with a three-year term. Each year, the mango industry goes through a nominations process to fill positions that will be available at the end of that year. More information about the nominations process is available in on NMB's website at: <http://www.mango.org/en/nominations>.

### **How should I store or ripen my mango?**

- Keep unripe mangos at room temperature. Mangos should not be refrigerated before they are ripe.
- To speed up ripening, place mangos in a paper bag at room temperature.
- Once ripe, mangos should be moved to the refrigerator, which will slow down the ripening process. Whole, ripe mangos may be stored for up to five days in the refrigerator.
- Mangos may be peeled, cubed and placed in an airtight container in the freezer for up to six months.

### **What are the different varieties of mangos?**

There are hundreds of mango varieties in the world. In the United States, you're likely to find six varieties in your grocery store throughout the year. Those varieties are Ataulfo, Francis, Haden, Keitt, Kent and Tommy Atkins. For more on varieties and when they are available visit <http://mango.org/en/Choosing-Using-Mangos/Mango-Varieties>.

### **Do mangos cause allergic reactions?**

Some consumers experience a mild allergic reaction to the oil, called urushiol, found naturally on the skin of a mango. Consumers who love mangos, but are concerned about potential allergic reactions may want to try fresh cut mango that has already been peeled and cut.

### **When is mango season?**

Fortunately for us, mango-producing countries harvest their mango crops at different times of the year, which means we get to enjoy mangos year-round. The mango year has two seasons, one in the spring/summer and one in the fall/winter. The two seasons overlap to provide a year-round supply.

### **Where do mangos come from?**

Mangos are grown all over the world in tropical regions. In the United States, we get the majority of our mangos from Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru.

### **Is there any domestic production of mangos?**

Mangos are grown in tropical regions where they thrive in sunny, consistently warm climates. This is very similar to produce such as bananas, coffee and other foods that can only be grown in certain regions.

Mangos have been grown in the United States for a little more than a century, but commercial, large-scale production here is limited. Mangos need a tropical climate to flourish, and only Florida, California, Hawaii, and Puerto Rico have the right environment to grow mangos. These domestic regions produce less than one percent of the mangos consumed in the United States due to the climate.

### **I thought India produced the most mangos?**

India produces about 40 percent of the world's mangos and consumes much of the domestic production domestically, but few Indian mangos are imported to the United States each year.

### **What is hot water treatment?**

Hot water treatment is used to control pests that live in producing areas and keep them from traveling to the United States. The process consists of emerging mangos in hot water to bring the pulp to a specific temperature. Hot water treatment has been approved by USDA as a quarantine treatment for the control of pests.

### **Are mangos irradiated? What is irradiation exactly?**

Irradiation is a protocol approved by USDA as a quarantine treatment for the control of pests from some mango-producing regions, such as India. A very tiny portion of the mangos sold in the United States have received irradiation treatment.

Food irradiation is the process of exposing food to a carefully measured amount of ionizing radiant energy (e.g.; electrons, gamma rays or X-rays), which travel through the food destroying pathogens such as E. coli without raising the temperature of the food.

Irradiated food does not become “radioactive” and the nutritional value of irradiated foods is not changed in any significant way at the doses used.

## **Mango Facts**

### **Did you know...**

- Mangos are one of the most popular fruits in the world.
- Mangos were first grown in India over 5,000 years ago.
- Mango seeds traveled with humans from Asia to the Middle East, East Africa and South America beginning around 300 or 400 A.D.
- The paisley pattern, developed in India, is based on the shape of a mango.
- A basket of mangos is considered a gesture of friendship in India.
- Legend says that Buddha meditated under the cool shade of a mango tree.
- Mangos are related to cashews and pistachios.
- A mango tree can grow as tall as 100 feet.
- The bark, leaves, skin and pit of the mango have been used in folk remedies for centuries

### **Mango Selection and Ripening**

- Don't judge a mango by its color – red does not mean ripe.
- Squeeze gently to judge ripeness.
- A ripe mango will “give” slightly and a firm mango will ripen at room temperature over a few days.
- To speed up ripening, place mangos in a paper bag at room temperature.
- Once ripe, mangos can be moved to the refrigerator to slow down ripening for several days.

### **Eating Mangos**

- In many Latin American countries, mango on a stick with the skin peeled back is sold by street vendors.
- Mangos can be enjoyed with salt, lime juice or chili powder for a unique flavor experience.
- Mangos have natural tenderizing properties, making them a perfect ingredient for marinades.
- Try the versatile mango in smoothies, salads, salsas, chutneys, on fish, chicken or pork, as a dessert or just plain as a delicious snack.

### **Mango Varieties, Seasons and Sources**

- Most of the mangos sold in the United States come from Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru. Mangos are available all year long.
- Most of the mangos sold in the United States are one of six varieties: Ataulfo, Francis, Haden, Kent, Keitt and Tommy Atkins.

**USDA-Approved Nutrition Messages**

GENERAL NUTRITION	
<p>One cup of mangos is 100 calories, so it's a sweet treat that won't weigh you down.</p> <p>Each serving of mango is fat free, sodium free and cholesterol free.</p> <p>Mangos contain over 20 different vitamins and minerals, helping to make them a superfood.</p>	
NUTRIENT CONTENT & STRUCTURE FUNCTION	
Vitamin A	
Nutrient Content	Structure Function
<p>One cup of mango is an excellent source of (the antioxidant) vitamin A.</p> <p>One cup of mango provides 35% of your daily vitamin A (needs/requirements).</p>	<p>Vitamin A is critical for vision.</p> <p>Vitamin A is important for immune function.</p> <p>Vitamin A may be important for reproductive health.</p> <p>Vitamin A helps maintain healthy skin.</p> <p>Vitamin A plays a role in bone growth.</p>
Vitamin C	
Nutrient Content	Structure Function
<p>One cup of mango is an excellent source of (high potency/the antioxidant) vitamin C.</p> <p>One cup of mango provides 100% of your daily vitamin C (needs/requirements).</p>	<p>Vitamin C supports healthy cognitive and neurologic function.</p> <p>Vitamin C is required for collagen formation.</p> <p>Vitamin C increases the absorption of non-heme iron, or the form of iron present in plant-based foods.</p> <p>Vitamin C plays an important role in immune function.</p> <p>Vitamin C is important for wound healing.</p> <p>Vitamin C keeps gums and teeth healthy.</p>

<b>Folate</b>	
<b>Nutrient Content</b>	<b>Structure Function</b>
<p>One cup of mango is an excellent source of folate.</p> <p>One cup of mango provides 20% of your daily folate (needs/requirements).</p>	<p>Consuming adequate folate before and during pregnancy may help reduce a woman's risk of having a child with a brain or spinal cord defect.</p> <p>Folate helps the body make red blood cells and DNA.</p> <p>Folate supports healthy cardiovascular function.</p>
<b>Vitamin B6</b>	
<b>Nutrient Content</b>	<b>Structure Function</b>
<p>One cup of mango is a good source of vitamin B6.</p> <p>One cup of mango provides 10% of your daily vitamin B6 (needs/requirements).</p>	<p>Vitamin B6 is involved in immune function.</p> <p>Vitamin B6 plays a role in cognitive development.</p> <p>Vitamin B6 helps the body maintain normal blood sugar levels.</p> <p>Vitamin B6 helps the body make hemoglobin, which carries the oxygen in red blood cells to tissues throughout the body.</p> <p>Vitamin B6 helps maintain normal nerve function.</p>
<b>Copper</b>	
<b>Nutrient Content</b>	<b>Structure Function</b>
<p>One cup of mango is a good source of copper.</p> <p>One cup of mango provides 10% of your daily copper (needs/requirements).</p>	<p>Copper helps form red blood cells.</p> <p>Copper supports healthy immune function.</p> <p>Copper helps to maintain bone health.</p>

<b>Fiber</b>	
<b>Nutrient Content</b>	<b>Structure Function</b>
<p>One cup of mango is a good source of fiber.</p> <p>One cup of mango provides 12% of your daily fiber (needs/requirements).</p>	<p>Fiber makes you feel full faster and therefore may help support weight management.</p> <p>Fiber aids digestion.</p> <p>Fiber helps control constipation.</p> <p>Fiber slows the absorption of sugar into the bloodstream.</p>



## **Communication Materials**

### ***National Mango Board's Mission***

The mission of the National Mango Board is to increase awareness and consumption of fresh mangos in the U.S.

### ***National Mango Board Boilerplate***

#### **About National Mango Board**

The [National Mango Board](#) is an agriculture promotion group supported by assessments from both domestic and imported mangos. The board's vision, to bring the world's love of mangos to the U.S., was designed to drive awareness and consumption of fresh mangos in the U.S. marketplace. One cup of the superfruit mango contains 100 calories, 100% of daily vitamin C, 35% of daily vitamin A, 12% of daily fiber, and an amazing source of tropical flavor. Learn more at [mango.org](#).

## **ISSUES ANALYSIS AND TALKING POINTS**

Based on a current understanding of the food safety and issues management arena, the following issues have been identified as potential scenarios the mango industry could face.

**NATIONAL MANGO BOARD'S**  
**BUSINESS PRACTICES**

## **National Mango Board's Role, Value and Assessments**

### **Background**

The National Mango Board (NMB) is an agriculture promotion group, which is supported by assessments from domestic and imported mangos. The board's mission is to increase awareness and consumption of fresh mangos in the United States. The board works toward this mission through three core programs: marketing, research and industry relations.

The NMB was established by the U.S. Department of Agriculture's (USDA) Agricultural Marketing Service (AMS) in 2005. Every five years, mango industry members vote to continue the program. In 2015, [more than 90 percent of the industry](#) supported the continuation of NMB's work. This is an 18 point increase in support since 2010.

A potential issue the board may face is the mischaracterization of board assessment fees as a tax on U.S. consumers. NMB's work is funded through a  $\frac{3}{4}$  cent per pound assessment paid by first handlers and importers of 500,000 pounds or more of fresh mangos per year. The board uses the funding for non-brand-specific promotional and marketing programs that help increase demand for fresh mangos in the United States. Additionally, the board reimburses USDA and AMS any expenses that the agencies may incur in their oversight of the board's work.

Source: AMS – [Mango Promotion, Research and Information Order](#)

## **National Mango Board and Controversial Issues**

### **Background**

The National Mango Board (NMB) is an agriculture promotion group, which is supported by assessments from domestic and imported mangos. The board's mission is to increase awareness and consumption of fresh mangos in the United States.

On occasion, mangos may be involved in negative or controversial stories. Examples of issues that could draw scrutiny include:

- Some individuals and groups object to all agriculture promotion groups and regularly call for their elimination.
- An industry-wide debate regarding the relative merits of hot water treatment versus irradiation.
- An individual NMB staff member or board member's actions reflect negatively on the industry generally or NMB specifically (e.g.; a staff member posts a disparaging comment about the mango industry on a social media channel that goes viral).

These types of issues will be monitored by the board; responses will be determined on a case-by-case basis with the goal of providing accurate information. Below are general messages about the board and its work.

**FOOD SAFETY ISSUES**

## **Controlling Points of Potential Contamination**

All mangos sold in the U.S. must comply with all applicable food safety regulations, including The Plant Protection Act that gives the USDA's Animal and Plant Health Inspection Services (APHIS) the authority to inspect imported fruits and vegetables. Inspections may occur at airports, maritime or land border locations, and are conducted in accordance to the USDA's [Fruits and Vegetables Import Requirements](#) by agents, including:

- Customs and Border Protection (CBP) officers
- CBP agricultural specialists
- Plant Protection and Quarantine officers

Additionally, the National Mango Board (NMB) is monitoring the new [Food Safety Modernization Act](#) (FSMA) to determine how it impacts growers and suppliers who provide mangos to the U.S. consumers when the new rules go into effect. The final rules have been released by the U.S. Food and Drug Administration (FDA), which has provided a variety of resources, including a Produce Rule [Fact Sheet](#), including key requirements, compliance dates and more, as well as an [FAQ](#).

In 2012, mangos from a single supplier, Agricola Daniella in Sinaloa, Mexico, were recalled by the FDA and the Canadian Food Inspection Agency (CFIA) due to concerns about salmonella contamination. This was the first recall of its kind since NMB's establishment in 2005. Prior to NMB's work, there had been only three known incidents in which mangos were associated with a food-borne illness (salmonella). Since 2012, there has been a limited voluntary recall of mangos by one supplier. Media coverage of the recall was limited.

Another potential point of concern is the health and hygiene of employees handling mangos. Employees should be encouraged to practice good hygiene and to follow sanitary practices at work for themselves and their work environment. Other pertinent best practices and regulations for controlling points of contamination include reducing the presence of food-borne contaminants, eliminating pests, training focused on sanitation, ensuring water quality for hot water treatment, optimal storage and shipment procedures and more.

Beginning in 2007, NMB led a review of the best postharvest practices among the mango industry with the goal of improving the safety, quality and consistency of mangos. The results were compiled in the "[Mango Postharvest Best Management Practices Manual](#)" and made publicly available and updated in 2014. The manual covers mango production and distribution from grove to retailer and foodservice outlets; it complements NMB's work to promote mango purchases and to provide consumers information on the best ways to select and prepare mangos.

More recently, taking into consideration evolving food safety knowledge and requirements, NMB has worked with food safety expert Dr. Sergio Nieto-Montenegro of Food Safety Consulting & Training Solutions, LLC, to develop a Food Safety Training Kit. This Kit shares food safety training materials recommended for mango growing farms and packinghouses in the top six exporting countries, and mango warehouses and distribution centers in the United States. The Kit also covers a range of recommendations from on-the-farm practices and employee hygiene to retail handling guidelines. The kit and comprehensive materials are available online at: <http://www.mangofoodsafety.org>.

## **Hot Water Treatment and Irradiation**

### **Background**

*Hot Water Immersion Treatment:* Hot water immersion treatment (also called hydrothermal treatment) uses heated water to raise the temperature of the commodity to the required temperature for a specified period of time. This is used primarily for certain fruits that are hosts of fruit flies, but may also be used for nursery stock for a variety of pests. (*Source: USDA*)

*Irradiation:* This technology was first approved by USDA's Animal Plant Health and Inspection Service (APHIS) in 1997 for use on papayas from Hawaii for export to the U.S. mainland, Guam, Puerto Rico, and the U.S. Virgin Islands. In 2002, irradiation was approved as a phytosanitary treatment for all admissible fresh fruits and vegetables from all countries. The objective of phytosanitary treatments is to prevent the introduction or spread of regulated pests. As a phytosanitary treatment, irradiation may reduce the risk of introduction by achieving certain responses, known as "endpoints," in the targeted pest(s). (*Source: USDA*)

APHIS certifies facilities for treatment services, equipment, and procedures in conjunction with the Center for Plant Health Science Technology. Treatment specifics are outlined in the [USDA Treatment Guide](#) which can be found on the APHIS website.

In 2010, NMB issued its "[Mango Postharvest Best Management Practices Manual](#)," which includes recommendations for using hot water treatment to reduce the spread of pests. These recommendations, updated in 2014, are in accordance with USDA and APHIS requirements and provide the entire mango industry with tools to continuously improve their production practices.



## **Pest Detection and Control**

Pests and diseases pose a serious, plausible threat to the livelihood of the mango industry with potential adverse effects on sales price, volume, and importation. For example, in 2013, the Florida orange industry was negatively affected by citrus greening and the global banana export industry was managing the threat of a particular soil fungus - *Fusarium oxysporum f. sp. Cubense*. Both issues not only affected their respective industries, but received significant media coverage.

The USDA's Animal and Plant Health Inspection Service (APHIS) serves to facilitate safe trade, monitor the movement of risk material, protect against the introduction of pests, and regulate the import and export of plants. USDA's [Fruits and Vegetables Import Requirements](#) provides background, procedures, and reference tables for regulating imported articles of fresh, usable parts of plants, such as fruits, stems, leaves, roots, and flowers (herbs and vegetables). In the event that a pest or disease of concern is detected, APHIS implements emergency protocols and partners with affected states to quickly manage or eradicate the outbreak.

Complementing the standards set by USDA / APHIS, NMB published its "[Mango Postharvest Best Management Practices Manual](#)," which includes specific steps producers can take to reduce and even eliminate the presence of harmful pests. For example, the best practices manual outlines steps that can be taken to improve hot water treatment processes in accordance with APHIS' requirements for pest prevention.

## **Chemical Residues**

### **Background**

The U.S. Environmental Protection Agency (EPA) regulates the use of pesticides, fungicides and other chemicals that may be used in the production of mangos. Mangos grown outside of the United States must comply with both the regulations of their countries of production and with U.S. requirements.

Pesticides, fungicides and other treatments are used by growers to help ensure the safety and quality of mangos. For example, mangos are susceptible to anthracnose, a type of plant disease that can reduce mango quantities and damage the fruit itself making it unappealing to consumers. Mango growers use fungicide to limit the spread of this plant disease before and during mango tree flowering.

However, when used in accordance with EPA regulations, there are nearly imperceptible amounts of pesticides on mangos purchased by consumers. In fact, after reviewing the U.S. Department of Agriculture's (USDA) [Pesticides Data Program](#) Annual Summary, the Environmental Working Group listed mangos on their "[Clean 15](#)" list of produce with the lowest detectable levels of pesticides.

## **Water Quality**

### **Background**

Research has shown that hot water treated mangos could be susceptible to the internalization of salmonella if they were then cooled with contaminated water. The research highlighted the importance of following proper procedures to ensure the quality and safety of water used to treat mangos.

This points to the importance of ensuring the quality and safety of water used to grow and treat mangos. Hot water treatment for mangos is regulated by the USDA's Animal and Plant Health Inspections Service (APHIS) and includes specifications for using sanitary water. These regulations are complemented by NMB's "[Mango Postharvest Best Management Practices Manual](#)" and "Mango Industry Food Safety Training Kit," which include specific guidelines for ensuring water quality during hot water treatments.

## **Produce Traceability Initiative**

### **Background**

The first priority of the Produce Traceability Initiative (PTI) is to protect the consumer through faster and more precise identification of implicated product. PTI is intended for those responsible for implementing traceability in their company's operations and supply chain. This includes fresh produce growers, packers, exporters/importers, and distributors as well as their customers and suppliers. It applies to fresh fruit and vegetables for human consumption at all levels of production and shipping containers, including pallets, cases and consumer items.

Each traceability partner must be able to identify the direct source (supplier) and direct recipient (customer) of product by tracing the history, application or location of the product they're handling. Types of traceability include:

- *External Traceability* is the business processes that occur between trading partners and the information/data exchanged to execute traceability
- *Internal Traceability* is the proprietary data and business processes a company uses within its own span of operations to execute traceability.
- *GS1 Traceability* provides the framework required to support the traceability (business) process. Developed by industry, the standard defines the globally-accepted method for uniquely identifying:
  - Trading parties
  - Trading locations (can be any physical location such as a warehouse, packing line, storage facility, receiving dock or store)
  - The products a company uses or creates
  - The logistics units a company receives or ships
  - Inbound and outbound shipments
- *The GS1 Global Traceability Standard* also defines the essential pieces of information that have to be collected, recorded and shared to ensure one step up, one step down traceability. The standard is applicable to companies of all size and geography.

## **Food Safety Ripple Effect**

### **Background**

As a whole, the industry is committed to doing everything possible to eliminate the risk of food-borne illnesses, and to continuously improving its food safety practices.

However, it is possible that the mango industry's reputation could be damaged by a food safety issue that affects another industry or a country where mangos are grown. For example, the 2013 outbreak of *Cyclospora* in the United States led to a lengthy investigation for the source. Investigators' first guidance to consumers advised that *Cyclospora* was typically related to produce imported from Latin America. Subsequently, the outbreak was tied to a salad mix imported from Taylor Farms de Mexico. Outbreaks of *Cyclospora* continue to be an issue with outbreaks in 2014 and 2015 leading to similar investigations and concerns regarding the safety of imported produce. Outbreaks such as these are highly publicized by the media and contribute to consumer perceptions that imported produce may be less safe than other options.

Other potential areas for concern may include:

- Unapproved use of pesticides, fungicides or other chemicals.
- Pests associated with other tropical fruits (e.g. fruit flies).
- Embargoes of other tropical fruits.

NMB monitors food safety concerns that may tangentially affect the mango industry. When appropriate, the board may proactively determine the extent to which it could be impacted.

## **Trade Association, Retailer and Foodservice Partners**

### **Background**

As part of its mission, NMB provides information and resources used to help ensure the quality and safety of mangos from grove to table. This work includes providing educational materials to retailers and foodservice customers as well as working with the trade associations and groups that represent and/or work with these businesses.

In particular, NMB works with Produce Marketing Association (PMA), United Fresh, Fresh Produce Association of the America (FPAA), National Restaurant Association (NRA) and Food Marketing Institute (FMI) to varying degrees. Some information regarding their programs is listed below.

In the wake of numerous high-profile food recalls and in response to legislative and regulatory changes, these organizations and others have developed comprehensive food safety programs or enhanced their programs to better serve their membership with the goal of delivering safe foods to consumers.

[PMA](#) provides its members with food safety tools and information as well as access to food safety and traceability experts who are available to help develop food safety programs.

[United Fresh](#) partners with the USDA to provide Produce Inspection Training programs led by USDA experts. The programs are open to produce industry members from grower to retailer.

[FPAA](#), which represents growers based in Mexico, shares NMB's commitment to food safety and provides its members with information regarding the requirements for complying with all U.S. regulations.

While foodservice food safety requirements vary by state, many states require certification through NRA's [ServSafe](#) program.

[FMI](#) provides retailers and wholesalers with food safety information based on regulatory requirements; tailors programs and training to its members' needs; and supports its members in response to food safety concerns, including food recalls.

**SUSTAINABILITY ISSUES**

## **U.S. Supply Chain and Distribution (Sustainability)**

### **Background**

Increasing consumer demand for “local” foods and seasonal produce stems, in part, from an interest in ways consumers can help prevent negative environmental impact associated with importing foods to the United States. Consumers may also be motivated by a desire to support local producers.

This trend creates concerns for some mango industry members since the vast majority of mangos available in the United States are from tropical regions, Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru. In 2015, 66 percent of mangos were imported from Mexico.

However, there are also consumers who are interested in purchasing foods and produce that are authentic to their regions. When appropriate, the tropical nature and grower expertise associated with mangos should be highlighted.

Additionally, NMB’s Sustainability Assessment for the mango industry provides some information that can be used to counter concerns about the negative impact of importing mangos and signals the industry’s commitment to addressing these concerns through this work. Additionally, as issues come up that reinforce the mango as an imported product, positive messages should be delivered that highlight its tropical origins and expertise in the growing regions.



## **Food Miles and Importing Tropical Fruits**

### **Background**

Six varieties of mango are most widely available in the United States and are imported from tropical regions, including Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru. Exporting mango countries harvest their mango crops at different times of the year, allowing for year-round availability in the United States. The most commonly available varieties of mangos include Ataulfo, Francis, Haden, Keitt, Kent and Tommy Atkins.

In 2014, 61 percent of mangos were imported from Mexico.

While there is an increasing consumer demand for “local” foods and concern about the environmental impact of importing foods, mango production in the continental United States (e.g.; Florida and California) is very limited and insufficient to meet growing consumer demand.

Simultaneously, demand is growing for mangos and consumer research indicates that country-of-origin and variety are not yet top-of-mind concerns for consumers when choosing mangos. Instead, consumers are more focused on understanding how to choose, prepare and enjoy mangos.

This fact allows NMB and others to focus on the eating experience as a purchase motivator and education about selecting and preparing mangos. As issues come up that reinforce the mango as an imported product, positive messages should be delivered that highlight its tropical origins and expertise in the growing regions.

## **Environmental Impact of Production Practices**

### **Background**

The potentially negative impact of farming practices on the environment is an issue that garners media coverage and generates consumer concern. Particular points of concern for the mango industry could be related to the ways in which transportation, fertilizers and other production practices may contribute to carbon emissions.

NMB's [Sustainability Assessment](#) for the mango industry is a beginning point to help respond to specific concerns or criticisms. In particular, the mango industry's willingness to undertake this survey and to consider ways the industry could minimize or neutralize its impact on the environment are positive messages the mango industry should highlight where appropriate.

A notable finding of the sustainability assessment to highlight is the potential for industries like mangos, which rely on large groves of trees, to have positive impact on carbon emissions because groves of trees sequester and convert carbon dioxide. While mango-specific research is preliminary, this is promising data.

## **Water Usage**

### **Background**

Water usage was identified as an area of potential concern in NMB's "[Sustainability Assessment for the Mango Industry](#)."

In particular, the assessment found that mangos appear to be at the high end of water usage in comparison to other produce; flood irrigation was identified as a major source of water usage. However, the research also notes that, in some cases, irrigation practices are managed by government authorities and mango growers may not have autonomy to consider options such as micro spray or micro drip irrigation to reduce water use.

While further research is needed to draw more conclusive findings and specifics, it should be noted that NMB's Sustainability Assessment signals the industry's commitment to addressing concerns such as these.

**IMPORTED AND DOMESTIC MANGO ISSUES**

## **Mango Varieties Available in the United States**

### **Background**

Six varieties of mango are most widely available in the United States and are imported from tropical regions, including Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru. Exporting mango countries harvest their mango crops at different times of the year, allowing for year-round availability in the United States. The most commonly available varieties of mangos include Ataulfo, Francis, Haden, Keitt, Kent and Tommy Atkins.

In 2015, 66 percent of mangos were imported from Mexico. Some mangos are grown in the United States (e.g.; Florida and California), but the supply is very limited and insufficient to meet growing consumer demand. Additionally, the growing requirements for quality mangos make it highly unlikely that the U.S. mango industry could expand to meet consumer demand in the future.

## **Border Closures and Embargoes**

### **Background**

Because the vast majority of mangos sold in the United States are imported from Brazil, Ecuador, Guatemala, Haiti, Mexico and Peru, any delays at the border could significantly impact product quality, and U.S. supply.

Potential situations that could negatively impact portions or the entire industry include:

- Embargo on imports of produce (non-mango specific) from a mango-producing country.
- Closure of a major port or border crossing (e.g. Nogales, Philadelphia, etc.) due to circumstances unrelated to mangos.
- Embargo on imports of mangos in particular from some or all mango-producing countries (e.g. fruit flies or unapproved chemicals found in mango shipment).

While NMB cannot lobby or advocate on behalf of its industry members, the board can facilitate dialogue between its members and the appropriate agency contacts and/or others within the industry (e.g. Produce Marketing Association) with the goal of resuming mango shipments.

## **U.S. Customs Border and Protection Seizures**

### **Background**

When the media reports on forfeiture of mangos, we want to remind the industry about the purpose of the National Mango Board.

## **Labor and Workforce Practices**

### **Background**

Labor practices in other countries become an issue when consumers are made aware of specific instances of poor labor conditions. Fair trade and labor practices are an issue of interest to particular segments of consumers, but it is not necessarily a top-of-mind concern for all consumers.

To avoid negative media coverage or consumer perceptions about the mango industry, it is important that all members of the industry be aware of the concern and implement practices that show consideration of the labor force.

While NMB is not likely to become involved in labor issues, it will monitor the issue, provide the industry's general position on labor practices and facilitate discussions as appropriate.



**CONSUMER CONCERNS**

## **Mango Quality**

### **Background**

As with any fresh produce, the quality of mangos is subject to factors that are both controllable and uncontrollable. Controllable factors include growing practices such as field preparation, pest management and irrigation. They also include harvest timing and techniques as well as post-harvest handling, shipping, and storage. Then, there are those uncontrollable factors, such as Mother Nature and retail/foodservice storage and handling factors.

Consumer research identifies an overall satisfaction among mango purchasers with the quality of the fruit. According to the 2013 Mango Attitude and Usage Survey, 70 percent of current mango buyers have been satisfied with the quality of mangos they have purchased.

With the goal of continuously improving the quality of mangos imported to the United States, NMB published its "[Mango Postharvest Best Management Practices Manual](#)," which provides guidance on improving the production and delivery of mangos at each point of the mango's grove to consumer journey. Additionally, NMB provides retailers, foodservice and consumers with information about ensuring mango quality, including information about how to select and prepare mangos.

## **Supply and Availability in the United States (Consumer Demand)**

### **Background**

Supply issues range from scarcity to excess supply.

From an industry perspective, a predictable mango supply is important for a variety of reasons. For example, retail promotions for mangos rely on having a sufficient supply of mangos to meet the resulting consumer demand. Additionally, the industry can be negatively impacted by production that exceeds forecasts as that can depress mango prices.

Because the mangos are grown in tropical regions throughout the globe, there is year-round availability. As with any fresh produce, there are volume fluctuations and NMB works with growers to project volume distribution and encourage retailers to feature the popular fruit on a year-round basis.

Every seven to 14 days, NMB updates and issues the [Mango Crop Report](#) with information from the countries that are currently shipping mangos, will begin shipping soon or have recently ended shipment to the United States. The Mango Crop Report includes information about volume shipped to and arrived in the United States; varieties shipped; recent pricing information; and more.

## **Allergic Reactions**

### **Background**

Urushiol is a type of oil found on the skin and in the stems of mangos that in some cases may cause an allergic reaction in some people. The most common type of reaction is an itchy skin condition called allergic contact dermatitis. Urushiol can also cause redness or minor blistering; reactions usually occur within 12 hours to 48 hours.

Mild allergic reactions to urushiol in the skin of mangos can typically be treated with topical steroid creams and/or oral antihistamines prescribed by a dermatologist or physician. More severe reactions may need to be treated with oral or injectable corticosteroids, antibiotics, or other anti-inflammatory and immunologic agents.

*This information is for background only; we do not recommend using it proactively in response to inquiries.* Urushiol is an oil similar to the sap in plants like poison ivy, poison oak and poison sumac. Individuals allergic to latex, which is derived from tree sap, may also experience an allergic reaction to mangos.

*Source: American Academy of Dermatology*

## **Phytophotodermatitis**

### **Background**

Phytophotodermatitis is a skin condition that can cause some people to have a reaction to certain types of fruits and plants. The reaction occurs only when a person has been exposed to certain fruits or plants, including lemons, limes and even mangos, and the affected area is exposed to sunlight (ultraviolet light).

In particular, U.S. media has reported skin reactions when people, especially chefs, handle citrus fruit in large quantities or those who have gone out into the sun after handling citrus fruit. In 2016, there was limited consumer media coverage of a young girl who had a skin reaction after mango juice dripped on her skin that was then exposed to sunlight.

The skin reaction caused by phytophotodermatitis can be prevented by washing the affected area of skin (e.g. hands, face, etc.) with soap and water, especially when outdoors or near other sources of ultraviolet light.

Source: [Mayo Clinic News Network](#), Aug. 12, 2011

## **Consumer Handling**

### **Background**

As with any fresh product, consumers can influence the quality and safety of mangos once purchased at retail.

Storage and preparation are key to the quality of mangos. NMB's website, [www.mango.org](http://www.mango.org), features several videos and other materials on the best way to select, store and serve mangos. This information is also featured in a variety of other materials provided by NMB, including consumer, retailer and point-of-purchase materials.

As with any food product, consumers should always follow general food safety practices such as sanitizing knives, cutting boards, counters and other kitchen tools that may come into contact with mangos or other foods.

More information about consumer food handling and safety practices are available at [www.fightbac.org](http://www.fightbac.org), which is supported by The Partnership for Food Safety Education. The program is designed to educate consumers about reducing their risk of food-borne illnesses.