2015 – 2017

MISSION AND STRATEGIC PRIORITIES 2015 – 2017

MISSION
Increase consumption of fresh mangos in the United States (U.S.) through innovative research and promotional activities, while fostering a thriving industry.

VISION
To bring the world’s love of mangos to the U.S.

STRATEGIC PRIORITIES
1. Direct to consumer marketing to increase mango consumption and awareness
2. Increase presence and sell-through of mangos at retail
3. Increase presence and sell-through of mangos at foodservice
4. Generate knowledge through research efforts in support of the vision
5. Enhance industry communication and preparedness to create a unified industry

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ABOUT THE NATIONAL MANGO BOARD

The National Mango Board (NMB) is an agricultural research and promotion program authorized by the Commodity Promotion, Research, and Information Act of 1996 (7 U.S.C. 7411-7425), and the Mango Promotion, Research, and Information Order, issued in 2004 (7 CFR 1206). The NMB is an instrumentality of the U.S. Department of Agriculture (USDA) and receives oversight from the Agricultural Marketing Service, Fruit & Vegetable Program, Research and Promotion Programs.

LETTER FROM THE EXECUTIVE DIRECTOR

Greetings Mango Industry,

I am pleased to share that the NMB could not have asked for a finer year in 2016! It was a year in which the past, present and future united to celebrate 10 years of NMB success and accomplishments. At the same time, the industry experienced a year of significant growth and the NMB made progress that will influence the future of mango consumption.

As part of NMB’s 10 years in the mango industry, past chairpersons and industry stakeholders, which were key in establishing the NMB, were invited to the September board meeting and honored for their unwavering support and strong leadership. Additionally, the NMB highlighted its 10 years of success at the Annual Mango Industry Reception at PMA in October, where it was our pleasure to host approximately 400 guests.

Last year also marked new records for mango volume in the U.S., with the total volume handled surpassing a billion pounds, an increase of over 12.5 percent compared to the previous year, and breaking the record set in 2013 by nearly eight percent. At the same time, demand for fresh-cut mango and ripe-and-ready to eat mangos continue to increase. Fresh-cut mango now makes up 22.5 percent of the total mango dollars per store/week generated at the retail level. This growth is exciting for everyone in the mango industry, but also brings to light areas of opportunity and existing bottlenecks that can be improved. To tackle these challenges, it is necessary for the NMB to continue expanding marketing and research efforts, and work closely with stakeholders at all levels of the industry. For these reasons, the NMB participated in several new events and projects, and included retailers in more activities. New initiatives included the Fairchild Mango Grower Summit, organizing mango industry tours and projects, and invited retailers in more activities. New initiatives included the Fairchild Mango Grower Summit, organizing mango industry tours and projects, and included retailers in more activities. New initiatives included the Fairchild Mango Grower Summit.

The NMB is proud to be an organization that continues to outperform itself year-after-year as it becomes more effective and more efficient in its marketing, research and outreach efforts. As evidence of this, the NMB’s return on investment (ROI) continues to rise and has reached a ratio of 14.2 to 1. This means that for every dollar invested into the NMB, $14.20 has been generated back to the mango industry. This extraordinary achievement is a result of the support received from the entire industry, the strategy provided by the board members and the implementation by everyone on the NMB team. By working together, we continue to expand mango consumption and drive the industry higher than ever before.

I invite you to review the 2016 NMB Annual Report to become familiar with what we have achieved together.

All the best to you!

Manuel Michel

Executive Director
LETTER FROM THE 2016 CHAIRMAN

Reflecting on 2016, I am pleased to say we made great strides in our vision to “Bring the World’s Love of Mangos to the U.S.” In the process, we won clarity on issues that keep mangos from being the most consumed fruit in the U.S., as it is in much of the world. The statistics and examples in these pages speak for themselves. The results are a testament to the quality of our talented and dedicated staff, our vendors, and to the mango industry board members who created our vision, mission, and strategic priorities.

Our Share. Mango. Love. campaign showed U.S. consumers the rich culture of mangos in Mexico and its many uses as a culinary delight. We also paired the world’s most popular fruit with the world’s most popular sport through our partnerships with US Youth Soccer and National Women’s Soccer League. Our marketing programs and our vision aligned perfectly, resulting in the highest number of yearly marketing impressions to date. I am proud of our staff for delivering record retail promotion results, and for winning the Produce Marketing Excellence Award.

Nutrition research projects concluding in 2016 suggest mango consumption could combat obesity, slow advancement of breast cancer, improve regularity, and decrease inflammation in the digestive system. Going forward, we will explore the promising area of “bioavailability” of the health-beneficial compounds in mangos. We also invested in postharvest research to solve quality problems such as anthracnosis, pitting, cutting black, and sunken shoulders. Our support of the mango genome project will make tremendous advancements in varietal breeding programs in the future.

I believe the only obstacle to mango becoming one of the most consumed fruits in the U.S. is a consistent excellent eating experience. The U.S. consumer needs to experience premium tasting varieties like Kent and Ataulfo at an optimal stage of ripeness. Consumer testing shows this will drive much higher consumption. Consequently, we must concentrate on flavor, not yield or shelf-life. We must eliminate the practice of picking fruit pre-maturely, as well as shipping and storing fruit below optimum temperature to maintain shelf-life when it saps the flavor. Lastly, we need to improve the quality and functionality of our packaging. We are tackling these concerns. Our ripe-and-ready to eat program has great success with retailers committed to delivering the best flavor to consumers. Our Packaging Task Force has identified challenges retailers have with mangos, and is developing solutions to decrease product damage, improve ripening, and make the distribution and display of mangos more efficient for the retailer.

If we unify the entire mango industry around the concept that everything we do must be guided by the principle of delivering the best FLAVOR to the final consumer, we will increase consumption dramatically for years to come.

Sincerely,
Greg Golden

2016 BOARD OF DIRECTORS

Greg Golden, Chair, Importer District II
Jojo Shiba, Vice Chair, Importer District II
Jorge Perez, Secretary, Foreign Producer
Chris Ciruli, Treasurer, Importer District III
Jiovani Guevara, Marketing Committee Chair, Importer District III
Oscar Orrantia, Research Committee Chair, Foreign Producer
Altamir Martins, Communications Committee Chair, Foreign Producer
Danny Pollak, Ex-Officio, Importer District I
Enrique Sanchez, Foreign Producer
Jacquie Svett, Foreign Producer
Michael Warren, Importer District I
Reynaldo Hilbck, Foreign Producer
Sergio Palala, Importer District III
Shawn Allen, Importer District II
Susan Underwood, Importer District I
Patrick Dueire, First Handler
Tomás Paulín Quezada, Foreign Producer
Veny Marti, Domestic Producer
Web Barton, Domestic Producer

2016 FINANCIALS

BDO USA, LLP, accountants and consultants, audited the NMB financial statements of fiscal year 2016 and issued a report on March 15, 2017. The audit was done in accordance to auditing standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the U.S. BDO USA, LLP did not identify any deficiencies in internal control over financial reporting for 2016.

INCOME

ASSESSMENTS $7,374,170
INTEREST INCOME $60
TOTAL REVENUES $7,374,230

EXPENSES

MARKETING $3,869,471
COMMUNICATIONS $644,205
RESEARCH $1,247,792
BOARD MEETINGS $115,275
OVERHEAD $467,476
USDA & U.S. CUSTOMS $124,049
DEPRECIATION & AMORTIZATION $39,837
TOTAL EXPENSES $6,865,702

CHANGE IN UNRESTRICTED NET ASSETS $788,033

UNRESTRICTED NET ASSETS

2015 END OF YEAR $3,601,102
2016 END OF YEAR $4,389,630

STATE OF THE MANGO INDUSTRY*

*Top Five Importing Countries: Brazil, Ecuador, Guatemala, Mexico & Peru

$590 MILLION WITH NMB PROGRAMS

$2.06 BILLION WITHOUT NMB PROGRAMS

29% INCREASE ATTRIBUTED TO NMB PROGRAMS

IMPORT VOLUME & VALUE

$268 BILLION

$1.465 BILLION

MILLIONS

OF BOXES

(4.0KG)

2005 62

2006 69

2007 71

2008 71

2009 69

2010 78

2011 89

2012 88

2013 102

2014 109

2015 109

2016 109

2005 $262

2006 $262

2007 $315

2008 $327

2009 $338

2010 $390

2011 $413

2012 $467

2013 $500

2014 $495

2015 $500

2016 $523

2005 $590 BILLION

2006 $590 BILLION

2007 $590 BILLION

2008 $590 BILLION

2009 $590 BILLION

2010 $590 BILLION

2011 $590 BILLION

2012 $590 BILLION

2013 $590 BILLION

2014 $590 BILLION

2015 $590 BILLION

2016 $590 BILLION

PER CAPITA AVAILABILITY

2005 1.88

2006 2.10

2007 2.10

2008 2.10

2009 2.02

2010 2.24

2011 2.53

2012 2.49

2013 2.87

2014 2.50

2015 2.59

2016 2.97

POUNDS PER PERSON

RETURN ON INVESTMENT

2011 $5.26

2012 $5.46

2013 $5.40

2014 $10.76

2015 $11.46

2016 $14.26

FROM 2008 TO 2016 FOR EVERY DOLLAR INVESTED IN THE NMB, THE INDUSTRY SAW A RETURN OF $14.26

REGIONAL MANGO PERFORMANCE

+ DOLLAR DISTRIBUTION
+ DOLLAR PER STORE/WEEK
+ VOLUME PER STORE/WEEK
+ AVERAGE RETAIL PRICE

SUB-REGION MANGO ONLY FRESH-CUT PERFORMANCE

+ DOLLAR CONTRIBUTION TO DEPARTMENT
+ DOLLAR PER STORE/WEEK
+ % OF STORES SELLING

MANGO VOLUME PER STORE PER WEEK

2005 132

2006 176

2007 150

2008 150

2009 140

2010 172

2011 189

2012 182

2013 212

2014 185

2015 213

2016 227

15% INCREASE COMPARED TO 2015

7% INCREASE COMPARED TO 2015

17% INCREASE IN VOLUME COMPARED TO 2015

5% INCREASE IN VALUE COMPARED TO 2015

5% INCREASE IN VALUE COMPARED TO 2015

DOLLAR DISTRIBUTION

MANGO 44%

KIWI 19%

PAPAYA 10%

POMEGRANATE 7%

DATES 6%

ALL OTHERS 3%
INDUSTRYWIDE INITIATIVES

MANGO ORDER AMENDMENT
The Proposal to amend the Mango Order was approved unanimously by the NMB members and submitted to USDA’s Agricultural Marketing Service. The next step involves USDA review of the proposal and determining whether there is sufficient justification and industry support to move forward. If USDA proceeds, then the proposal will be published in the Federal Register to move forward as a proposed rule to allow for public comment. Based on the feedback received, USDA will determine whether to conduct an industry wide referendum. In the meantime, the NMB will continue doing outreach and communicating with the industry.

MARKETING PROGRAM
The marketing program aims to educate U.S. consumers on the mango fruit and influence mango purchases in grocery stores and foodservice settings.

CONSUMER PR & MARKETING
Strategic Priority One – Direct to consumer marketing to increase mango consumption and awareness through educational initiatives, consumer research, nutrition messaging, multi-media strategies and more.

Food Revolution – Mangos: making the right moves at the right time.

RIPE AND READY TO EAT MANGO PROGRAM
The Ripe and Ready to Eat Mango Program (RRTEMP) continues to capture more interest than ever before among retailers, distributors and industry members. Retailers currently in the program have benefited from increased sales and repeat purchases. The use of ripened mangos is also growing in the foodservice sector. Chefs and operators look forward to having a steady supply of ripened mangos in their kitchen. All RRTEMP efforts aim to offer a quality fruit that is consistent, ripe, and ready to eat.

HIGHLIGHTS
• Winners of Produce Business Marketing Excellence Award for 2015 soccer partnerships in the Consumer PR Program.
• 2.7 billion total consumer impressions in 2016! – setting a new NMB consumer impressions record.
• Google’s number one food-related “how to” search query is “how to cut a mango.”
• SAVEUR, one of the most respected publications in the food world, ran mango-focused editorial in print and online.

SAMPLING EVENTS
Sampling events helped connect the consumer with the great taste of mangos. These events also provided nutritional information, education on how to select and cut, and recipe inspiration.

National Women’s Soccer League (NWSL)
Mangos were featured as the official superfruit of the NWSL.
• Sampled over 10,000 mangos at six games nationwide.
• Social media engagement reached 9.7K.
• 1.3 million social media impressions across NWSL.
• 612K stadium signage impressions across 10 stadiums.

US Youth Soccer
As an official snack of US Youth Soccer, mangos proved to be a kid favorite.
• Sampled over 4,000 mangos at 10 Kohl’s American Cup Tournaments.
• 440K social media posts impressions throughout Twitter and Facebook.
• 1.8 million website promotion impressions.

Solstice in Times Square
The largest yoga event in the country!
• Sampled multiple varieties of fresh mangos to over 5,000 active, health conscious men and women in New York City.
• 213K event impressions.
• 93 million media impressions.
• 113K impressions for sponsor public announcements.
• 51K event website views.

Julie Johnston
Julie is a Star of the Chicago Red Stars team and member of the National Women’s Soccer Team
Julie used her social media channels and national media broadcast to inspire consumers to eat more mangos.
• 118+ million media impressions.
• 1.7 million social impressions.
• Mangos received shout outs in publications like People and Sports Illustrated.

SAVEUR

how to cut
how to cut a mango
how to cut a pineapple
how to cut a watermelon
how to cut an onion
Press enter to search.
SOCIAL MEDIA
Social media community inspires mango usage among consumers through mango recipe ideas, variety awareness, and nutrition education.

Mangos Around the World
NMB’s most successful social campaign to date! It engaged consumers by highlighting the global love for mangos and the culture surrounding it.
• 20K entries – Record breaking!
• 29K total likes
• Over 486K+ total reach

Meal Prep
Partnered with popular foodie bloggers to create new and original recipes, inspiring consumers to include mangos in their healthy lifestyle.
• 4.4 million impressions
• 62K likes and comments
• 1+ million impressions from #mealprepmondays

NUTRITION PR & MARKETING

HIGHLIGHTS
• 1 billion total nutrition media impressions – a new NMB record!

REGISTERED DIETICIAN AMBASSADORS
Registered Dietician (RD) ambassadors secured mango coverage media placements, by creating blog posts, and placing mango messages on BuzzFeed, The Huffington Post, WebMD, Food Network Healthy Eats, and more.
• 501 million media impressions

NUTRITIONAL RESEARCH COVERAGE
NMB-funded nutritional research published in 2016.
• 244 million media impressions

SHARE. MANGO. LOVE.
The Share. Mango. Love campaign documented and showcased the culinary story of mangos in Mexico City, with the purpose of highlighting the world’s love of mangos to RDs and nutrition media outlets.
Retailers participated in farm tours in Puerto Rico and Mexico
- Raley’s
- Southeastern Grocers
- Price Chopper
- Walmart
- Whole Foods

Wynn Peterson and Gary Campisi of Walmart were named the NMB's Retailers of the Year in 2016.

RETAIL PROMOTIONS & MARKETING
Strategic Priority Two – Increase presence and sell-through of mangos at retail.

RETAIL PROMOTIONS
Retail promotions keep mangos top of mind for stores and consumers.
- 48K stores impacted
- 15.5K demo events
- 83% increase in mango volume due to NMB funded promotions

RETAIL TOOLS
The NMB offers fun and easy ways to educate store associates and successfully pump up mango sales.
- 9,400 bins shipped in 2016
- Mango Mania Display Contest - 90 entries - 103% increase in mango volume among participating stores
- 773 Mango University graduates! An increase of 553% from 2015

FOODSERVICE PR & MARKETING
Strategic Priority Four – Increase presence and sell-through of mangos at foodservice.

HIGHLIGHTS
- 9.6 million total foodservice media impressions
- 4.6K units impacted
- 85% volume increase due to NMB branded promotions
- 38 chains received fresh mango menu support from the NMB

MANGO STREET SMARTS
In recent years, the distributor segment of foodservice continues to grow. To support this growth, the NMB developed Mango Street Smarts, an educational tool to help buyers and distributors drive their mango sales.

A POWERFUL INGREDIENT FOR MENU INNOVATION
- In 2016, 1/3 of restaurants featured mango on the menu - 80% growth since 2005
- Mango ranked as the 9th most common fruit on appetizer, entrée and side menus in 2016 - Up 12% since 2012

Mango is in the Proliferation Stage

MENU ADOPTION CYCLE

<table>
<thead>
<tr>
<th>INCEPTION</th>
<th>ADOPTION</th>
<th>PROLIFERATION</th>
<th>UBIQUITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANGO UNIVERSITY</td>
<td>$10 for 10 minutes</td>
<td>LEARN HOW TO MOVE MORE MANGOS!</td>
<td>MANGO.IS.IN.THE.PROLIFERATION.STAGE</td>
</tr>
</tbody>
</table>
RESEARCH PROGRAM

Strategic Priority Five – Generate knowledge through research efforts in support of the vision.

NUTRITION RESEARCH

The discovery of new, positive nutritional information and health benefits from eating mangos can have a major impact on increasing mango consumption.

CONDUCTED RESEARCH IN 2016

- Diabetes Human Study: Mango supplementation could help improve glucose response and clinical parameters of pre-diabetic subjects – Oklahoma State University
- Diabetes Animal study: Understanding how mango affects glucose homeostasis in type two diabetes – Oklahoma State University
- Digestion Human Study: Mango in the promotion of intestinal regularity in subjects with constipation – Texas A&M
- Breast Cancer Human Study: Breast cancer preliminary human study – Texas A&M
- Colon Cell Absorption Human Study: Human Bioavailability and anti-inflammatory properties of mango polyphenols – Texas A&M
- Metabolism and Cell Culture Study: In vitro metabolism of mango polyphenols and their anti-inflammatory activities – Texas A&M
- Nutrition and health literature review – Illinois Institute of Technology

HIGHLIGHTS

The research findings of the first five projects listed above were presented at the Experimental Biology Conference. These studies suggest that the effect of mango consumption has the potential to help combat adverse effects associated with high fat diets and obesity, inhibit growth of fat cells, slow advancement of breast cancer tumors, and improve regularity and decrease inflammation associated with constipation.

NUTRITION STRATEGIC PLAN

Over the coming years, the NMB will focus their research funding in the areas of cardiovascular health and bioavailability and pharmacokinetics. These new areas will explore the potential nutritional and health benefits of mango.

1 CUP EQUALS

- 100% of daily vitamin C
- 35% of daily vitamin A
- 12% of daily vitamin E
- 12% of daily potassium
- 10% of daily magnesium
- NO cholesterol
- 0% of daily sodium
- 0% of daily saturated fat

POSTHARVEST RESEARCH

From the tree to the consumer’s plate, every step in the mango supply chain represents an opportunity to improve quality. The NMB has invested in extensive research to provide a clearer understanding of how quality can be improved through better production, postharvest, handling practices, and food safety.

HIGHLIGHTS

- Additions were made to the Mango Industry Food Safety Training Kit (FSTK) apps to include:
  - Two new chapters on “Handling, Use, and Storage of Agrochemicals,” and “Worker Health and Well-Being.”
  - A 30-45 minute e-training app for the “Foreign Suppliers Verification Program.”
- Increased efforts to reach industry consensus on a common packaging footprint for the mango industry through the Mango Packaging Task Force, which was composed of: importers, producers, retailers, researchers, and packaging manufacturers.
- A voluntary sustainability program was developed for mango producers and packers. Additional research was conducted on sustainable solutions for postharvest challenges such as anthracnosis, pitting, cutting black and sunken shoulders.
- The NMB supported research on the development of the mango genetic map, an association of traits and the genotyping of germplasm collections, which will make mango breeding more efficient.
- Literature reviews were completed for fertigation and rootstock information, which will guide the NMB on future research in these topics.

PRODUCER EXTENSION PROGRAM

The Producer Extension Program is an excellent educational outreach program in major mango producing regions. In 2016, eleven extension meetings were conducted/ sponsored, reaching more than 2,000 attendees. These meetings covered various topics including climate change, nutrient management, fertigation, pest and disease control, management of flowering, food safety, and more.
For more mango inspiration and insight, visit:

- mango.org
- facebook.com/mangoboard
- facebook.com/mangosconnect
- @mangoboard
- @Mango_Board
- pinterest.com/mangoboard
- youtube.com/mangoboard

National Mango Board