

National Honey Board Meeting Minutes

PRESIDING: Mindy Ryan Tharp Gehring, Chairperson

LOCATION: Disney World – Boardwalk Inn

DATE: April 24, 2024

National Honey Board Members Present: Mindy Ryan Tharp Gehring, Matt Halbgewachs, Bjorn Anderson, Michelle Poulk, Alan Turanski, Arlen Penner, Dustin Livermore, David Coy, Dan Winter, Joseph Sanroma, Sarah Neves (Seated for Tom Sargeantson)

National Honey Board Members Absent: Tom Sargeantson

National Honey Board Alternates Present: Jeff Caley, Missy Foot, Maren Marten, Patricia Sunberg, Doug Hauke

National Honey Board Alternates Absent: Greg Olsen, Darren Cox

National Honey Board Staff: Margaret Lombard, Kelly Werning, Catherine Barry, Jessica Schindler, Missy Boone Hall, Jocelyn Martinez, Darren Brown

AMS Present: Sam Mareno (USDA/AMS)

Guests Present: Nancy Burnett (Rice's Local Hive), Brenda Penner (Prairie Imports), Bob Ward (Sylint) Joyce Schlachter (Crockett Honey)

THURSDAY, April 24th, 2024

CALL TO ORDER – Margaret Lombard

Thursday session of the National Honey Board (NHB) meeting was convened at 9:05 a.m. by Margaret Lombard and Missy Boone Hall called roll. Board Members and Staff then introduced themselves.

ACTION ITEM I: To Seat Alternate – Sarah Neves in place of Tom Sargeantson.

Motion by Alan Turanski, seconded by Mindy Ryan Tharp Gehring and carried to approve.

ACTION ITEM II: TO ACCEPT THE CONSENT AGENDA

Motion by Alan Turanski, seconded by MindyRyan Tharp Gehring and carried to approve the consent agenda.

ACTION ITEM III: TO ACCEPT THE Fall 2023 MINUTES

Motion by Joe Sanroma, seconded by Alan Turanski and carried to approve the 2023 fall minutes.

ELECTION OF OFFICERS

The process of electing officers began. Positions were nominated, MindyRyan Tharp Gehring was voted for Chairperson unanimously by the board. Alan Turanski and Matt Halbgewachs were nominated for Vice Chair. Bjorn Anderson and Michelle Poulk were nominated for Treasurer. Board members filled out their paper ballot for Vice Chair and Treasurer, these were collected, and confidentiality counted by Sam Mareno and Missy Boone Hall. The following members were voted to be elected officials.

- Mindy Ryan Tharp Gehring – Chair
- Matt Halbgewachs – Vice Chair
- Bjorn Anderson - Treasurer

Sam Mareno, Marketing Specialist with United States Department of Agriculture welcomed all the new board members and preceded to swear in the new board members present.

Mareno briefly touched on the appointments by the Secretary of State and the responsibilities and guidelines of serving on the board.

2024 FINANCIAL STATEMENTS – Kelly Werning

National Honey Board's CFO, Kelly Werning, introduced herself and began reviewing Q1 financials.

Highlights from the March 2024 balance sheet include cash in bank of approximately \$2.6 million, \$19,000 for prepaid insurance, \$19,000 net property and equipment and \$8,700 other assets, which is NHB's rental deposit for office space. Additionally, NHB carries a Right of Use Asset of \$157,000 on the building lease, for a total of about \$2.8 million in assets. The balance sheet also includes approximately \$ 7,000 of outstanding current liabilities, which is made up of NHB's FSA & 401K program accruals, and a Lease Liability of \$177,000. These liabilities combined with NHB's net assets of \$2.6 million total approximately \$2.8 million.

The Income Statement shows total assessments, less assessment refunds, are approximately \$2.1 million. Offsetting assessment revenues are the assessment refunds. At the end of the quarter, NHB had been unable to issue any organic refunds, due to a lack of reporting provided by CBP after the implementation of their new system. NHB has been working with CBP on a solution, and expects to be able to issue refunds again sometime in the summer 2024. Program expenditures are \$1.4 million. Total expenditures are \$1.6 million, leaving NHB an excess of revenue over expense of approximately \$472,000.

2024 BUDGET AMENDMENT – Info Only

The 2024 budget amendment was reviewed next, with the 2024 original budget shown for comparison purposes. Werning noted that the Board will be voting the next morning to approve. NHB has seen a strong Q1 for import assessments, so an increase of \$250,000 was proposed. This continues to show NHB moving towards a more normal assessment level for 2024, with a budgeted net revenue of \$7.25 million. Werning explained how cash carryover works in our budget, and that we have \$594K to work with in 2024 in addition to the added assessments revenue. Werning then highlighted how NHB proposes to use these funds, beginning with a total of \$260K for research programs. \$500K will be allocated to marketing programs, and the remaining \$44K for administration, the majority of which covers the unanticipated increase in AMS fees. Werning went over the unexpected 35% AMS increase, and that the 2025 estimate will likely be more accurate.

Mareno clarified the fees are allocated for additional support, from top to bottom, not just the Honey Board team. These allocations might be adjusted for 2025.

Matt Halbgewachs asked if the assessments total is more because of the organic refunds not being processed? Werning, yes.

Matt Halbgewachs asked are assessments for 2024 Q1 higher than in past years? Werning, yes a little higher than the past couple years.

Missy Foot, does this mean Q2 will be lower? Werning, not always, this budget is back to a more normal budget year. Barry explained NHB was using funds in 2023 that were rolled over from years where the assessments were much larger and were abnormal years.

Lombard, please help us out if you have forecast info, please share. It isn't always easy for us to know the trends or be able to forecast until it is happening.

Werning went through the 2023 net assessments and how those dollars were spent. Werning explained that the assessment total was sitting slightly higher than normal.

Sarah Neves, the AMS admin fee is not included in Administration? Werning explained that in the Financial Statements, they are combined, but for the calculation of administrative expense percentage, it is not included per the Order.

COMPLIANCE UPDATE

Werning began by explaining that it is a requirement of the Order that NHB have a review program for domestic assessment payers. These reviews ensure that the assessments reported to NHB are accurate and supported by purchasing and production information. Domestic payers are on a rotating schedule to receive a review every three to four years. In the Spring, NHB reviews the domestic payer list to determine the year's reviews, and whether the review can be conducted via a virtual method, or if an in-person review is needed. Results of the reviews for 2024 will be presented at the fall meeting.

2024 ADMIN UPDATES –

Strengthening Organic Enforcement (SOE) Final Rule Changes: NHB met with AMS and discussed with them what documents are now required to verify and approve organic refunds. As a result of the SOE changes, there are a couple of NHB policy updates. In addition to the SOE policy changes, there is one employee handbook updates. Werning stated that these policies are available on the pre-read materials and briefly covered each, and reminded the Board will need to review and approve them tomorrow morning.

S. Neves asked if the SOE organic changes were causing the delay in organic refunds. Werning explained that this was a separate situation and was not the cause of the delay in refund processing. She explained the policy update outlines the new required documents to be included with organic reimbursement requests.

Werning went on to explain the CBP reporting situation, the problems it has caused and why there has been a delay in refund processing.

Mindy Ryan Tharp Gehring, Will CBP be sending the report now? Werning, yes. The format is now agreed upon and everyone should have a consistent report going forward. Once we have completed the programming needed to upload the CBP file into our accounting software we will be able to process the organic refunds.

Cyber Audit & NHB Portal Review

Werning briefly covered updates to Cyber Audit and the NHB portal, highlighting the new functionality and look of the tool. Werning went over the CBP File and the additional steps needed in order to process the file to be able to issue refunds. The new portal is anticipated to go-live Summer in 2024.

Missy Foot, where can the reporting data be found on honey.com? Missy Boone Hall, go to Industry & Partners, Industry then to Reporting.

Sarah Neves, will we have to do the multi-factor authentication login every time they log in? Werning, Boone Hall and Brown all answered Yes.

AUDIT PRESENTATION – Alanna Moses (Anderson & Whitney)

Alanna Moses with Anderson & Whitney reviewed the 2023 Audited Financial Statements.

Moses briefly noted that it is the auditor's opinion that the NHB Audited Financial Statements are represented fairly with no issues or adjustments.

Moses explained the Modified Accrual Basis of accounting used for government entities, and what the differences are from an Accrual Basis.

Moses spoke on financials, discussing assessments and carryovers from 2022 and cash and expenses in 2023.

Moses shared with the board that the NHB is in a sound financial situation and is well able to meet all obligations and expenses. The NHB is spending slightly under budget, and not above what has been approved.

Moses stated that administrative costs are very reasonable, and necessary to be compliant with the administrative requirements.

The auditors discovered no material weaknesses and stated that the NHB are following and complying with internal controls.

Mindy Ryan Tharp Gehring, is it difficult to run or operate so lean to accomplish everything we/you do? Lombard, discussion will take place in executive session tomorrow. We are down one staff person as you all know Andrea is no longer with the NHB and we will be evaluating the position and deciding what we need in/from that position going forward.

Sara Neves, how do you determine the programs and prioritize what goes on and what is taken out of the program if funds are not there? Barry, I will go over all of that during my presentation.

ACTION ITEM IV: TO APPROVE THE AUDITED FINANCIAL STATEMENTS

Motion by Matt Halbgewachs, seconded by Alan Turanski and carried to approve the Audited Financial Statements.

WELCOME & BOARD HIGHLIGHTS - Margaret Lombard

Lombard welcomed all the board members, alternates, and guests to the meeting. She shared an overview of:

- New Measurement Tools
- New Target Audience
- New Innovations Think Tank
- New Retail Programs
- New Social Media Channel
- New NHB Assessments Portal
- New Disney Activations

New Celebrating Beekeeping video featuring beekeepers from Argentina was played for the board with thanks given to the Impex Group and Lamex Foods for their support of the campaign coordination.

MARKETING PROGRAMS OVERVIEW – Catherine Barry

MARKETING & RESEARCH BUDGET OVERVIEW

Catherine Barry, Vice President of Marketing for the NHB, began by reviewing the marketing budget allocations by focus area. The major focus area that the budgets are broken down into include: Retail, Industrial (i.e. Ingredient & Foodservice), Industry Relations and Administrative.

The largest portion of the budget is allocated to programs that impact consumer purchase decision at retailers and local grocers. The second largest budget priority for the NHB marketing programs is the Industrial market that includes activities aimed at impacting honeys usage in the food and beverage industry. Industry Relations and Administrative expense are minor in comparison but still has funds allocated to shore up these efforts.

STRATEGIC PRIORITIES

Barry then shared that the Strategic Plan has continued to serve as the roadmap for all of the NHB's marketing programs. It has helped to ensure the programs meet the established mission and goals of the Strategic Plan set forth by the NHB Board Members and Industry Stakeholders. The top priorities from the Strategic Plan were:

- Main Objective is to Increase Consumption
- Demonstrate the Value of Honey
- Initiatives Tied to Honey Consumption and Purchase
- Tell the Global Honey Story
- Educate the Next Generation of Honey Consumers
- Bring the Industry Together and Foster Collaboration

PROGRAM MEASUREMENT

Following the Independent Evaluation of the NHB programs and their effectiveness in the marketplace, an opportunity arose to streamline the way the NHB measures its programs. Barry shared that many of the NHB agencies measure their programs based on agency processes & preferences, but it varies from one to the next. Therefore, Barry explained that a need was identified to create a consistent way to measure similar tactics across all NHB programs. She then introduced that the NHB was in the process of developing a Measurement Dashboard to report back on program effectiveness and more will be shared later.

COMMUNICATIONS PLATFORM

Barry then went on to review the NHB's strategic marketing platform: *Good For Me & Good For The Planet*. It focuses on a balanced approach of educating consumers about the benefits and nutritional properties of honey, while also educating about the importance of honey bees and their impact on the global food supply through pollination. These two communication pillars reinforce the reason "Why" to use honey. However, NHB research identified an opportunity to rebalance this focus and reintroduce "How" to use honey with inspiration honey usage ideas.

GOODNESS SEEKERS

The NHB continues to develop programs geared toward educating and influencing their target audience - the Goodness Seeker. Goodness Seekers currently represent about 19% of the US adult population at around 49 million people. Goodness seekers are female skewing, with a significant portion of them falling into the millennial age group. They are college educated and are very food involved. These consumers often read labels, but are looking to balance health, flavor and sustainability.

Barry shared the history behind how the NHB established the different Target Audiences over the years with the most recent target being the Goodness Seekers. Based on shifts in the research, the NHB determined it was a good time to reevaluate and conduct a new Segmentation Study. The NHB will plan to utilize the A&U Study efficiencies to explore the potential for a new target consumer group.

HIVE OF PARTNERS

The NHB has established relationships with several agencies to help execute strategy-based programs in each of the NHB's key focus areas: consumer, retail, foodservice, F&B manufacturing, Nutrition Research and Bee Health Research. Barry went on to explain what each of our marketing agency partners focus on and specialize in:

- **The Hartman Group:** Consumer Research & Insights and Strategic Consulting
- **Porter Novelli:** Consumer Media Relations, Influencer Management, Nutrition Research, Reputation Management and Industry Communication
- **Brightly Creative:** F&B Ingredient Marketing, Technical Research and Industry Summit
- **Sterling-Rice Group (SRG):** Strategy & Brand Management, Nutrition Professionals Outreach and Foodservice Marketing & Media Relations
- **FreshSmartSolutions:** Retail & Shopper Marketing Promotions
- **Barbara Lyle, Ph.D.:** Nutrition Research
- **Project Apis m.:** Bee Health Research Oversight
- **NHB Staff:** In-house Programs & Digital Communications

Sarah Neves, what goes into making adjustments to program budgets? Barry explained that programs are constantly being evaluated throughout the year, but at the very least on an annual basis to determine productivity of each focus area. The NHB determines what is working and what isn't, and then moves funding to the areas that seem to be highest performing.

RESEARCH: FOOD TRENDS REPORT – Laurie Demeritt (The Hartman Group)

Laurie Demeritt, CEO of The Hartman Group, presented key findings from 2 recent reports, on Gen Z/Gen Alpha and on Food Trends, along with a preview of the questionnaire for the upcoming Honey Attitudes and Usage study for NHB. Insights from the reports included:

- Gen Z is excited to explore varied cuisines, underpinned by a desire for new and unique tastes
- Gen Z's shopping is driven by a blend of innovative, convenient, and socially responsible shopping solutions
- Gen Z balances their budget with the desire for quality and convenience, looking for brands that deliver strong products without a premium price tag
- Parents of Gen Alpha are nurturing an environment where technology complements traditional parenting, aiming for a balance between digital engagement and real-world connections

- Cooking with children is an educational tool for millennial parents to blend nutrition, heritage, and global awareness
- Millennial parents use social media as a dynamic canvas to narrate their family's culinary life, fostering a shared digital experience
- In our modern cultural ecosystem, there are three key interconnected themes - Experience and Exploration, Supportive Wellbeing and Intentional Consumption - which cover a multitude of individual trends

Alan Turanski, is there trend data on kids learning to cook on their own? Demerritt, yes, however it is not included in the data collected for this research, but it is out there and it is becoming more popular.

MEASURING SUCCESS – Laurel Muir (Sterling-Rice Group)

Laurel Muir, Sterling-Rice Group, shared the measurement work that is underway across program as the NHB team works to standardize and streamline measurement to the Board of Directors strategic plan and key performance initiatives.

Margaret Lombard recommended to the Board of Directors that a task force be established to evaluate the measures in greater detail.

CONSUMER PR UPDATE – Jess Buchanan (Porter Novelli)

Jess Buchanan, Porter Novelli, walked through trends in media behavior followed by consumer PR program specifics. Current trends include election noise, a pivot to social media for news coverage and traditional media diversification to video and audio formats.

Buchanan went on to share the Honey Saves Hives program updates. After evolving Honey Saves Hives into an educational platform, in its fifth year, Honey Saves Hives will reprise an in-person media event, continue with two influencer partnerships, engage in earned media outreach and short-form recipe-driven video content on TikTok/Instagram for National Honey Month. The purpose of this activity is to showcase the relationship between purchasing honey and supporting beekeepers and honey bees. The program will include an Instacart extension, providing a trackable link for news stories and social media content and direct path-to-purchase for the audience.

Other consumer PR programs that were discussed, include an ongoing partnership with multiple media-friendly Registered Dietitians (RDs) to provide commentary, social media content, attendance at key conferences and partnerships with Retail RD networks to help disseminate nutrition research updates and keep honey top of mind among consumers.

DIGITAL COMMUNICATIONS UPDATE – Jocelyn Martinez

Jocelyn Martinez, Digital Communications Specialist for the NHB, presented on the NHB's in-house social media program, in addition to the state of social media in 2024.

Martinez began by reviewing the overall NHB digital communications strategy, including the program's goals, digital ecosystem and types of content shared on the various platforms. She then touched on the paid strategy and how the NHB supports its agency partner's programs through both ad dollars and community engagement. She wrapped up with specific content creation plans for 2024 – balancing “Why honey” and “How honey,” in addition to Good For Me and Good For The Planet.

Dug into industry trends and reports, including Meltwater's State of Social Media report (both globally and for the U.S.), covering organizational goals, top channels, and shifting focus on primary platforms. Reviewed recent Pew Research Center report on social media for news, and Morning Consult Research Intelligence's report on Gen Z's top channels and social media usage. Closed out trends section with updates on TikTok, news of its ban, and the company's reaction to the passing of the bill. Martinez also talked about the implications of the ban, its impact on NHB programs, and the NHB's POV.

Followed up trends section with implications on NHB's strategy, including priority platforms, social media for news, and social media SEO.

RETAIL PROGRAM UPDATE - Don Ladhoff

Don Ladhoff, FreshSmartSolutions, reviewed honey category sales and trends through year-end 2023 using syndicated sales data from NielsenIQ. The honey category posted solid growth in the FMCG (Fast Moving Consumer Goods) retail channel during 2023, with dollar sales ahead 8.6% and volume (pound) sales advancing 3.5%. Organic honey outperformed non-organic with dollars up 13.6% and volume increasing 7.9%, while Branded honey bested Private Label with a 58.2% share of dollar sales and growing 13.6% .

Honey's retail pricing jumped in 2023, averaging \$7.91 per pound compared to \$7.50 in 2022. Just over 20% of honey units were sold on promotion during 2023, accounting for 18.4% of total honey dollar sales; both promotional unit sales and dollar sales were up significantly from the prior year. 38% of honey units were sold in the 12-ounce size during 2023, accounting for 25% of total honey dollar sales. 16-ounce packages made up 24% of honey unit sales and accounted for 23% of dollar sales during 2023.

The NHB's retail programs in 2024 will be built around three pillars:

- partnering with retailers to conduct honey category business reviews
- implementing a promotional partnership with Justin's Nut Butters
- driving sales with a compelling consumer reward on Ibotta

The category business reviews involve engaging and educating retailers on opportunities to increase their honey category sales using Nielsen sales data overlaid with shopper insights and NHB recommendations. Don shared highlights of a review conducted with Lowes Foods and how it resulted in securing additional shelf space for honey along with gaining cross-merchandising of display shippers.

NHB has secured a promotional partnership with Justin's Nut Butters, the #2 brand in their category with a longstanding commitment to pollinator conservation. Justin's will be partnering with NHB to conduct product demos in approximately 500 stores during September, sampling their Classic Almond Butter along with honey while sharing usage ideas and educating shoppers on our Honey Saves Hives initiative.

During National Honey Month in September, NHB will also be utilizing the Ibotta Performance Network to offer a \$1.00 reward on the purchase of any honey to its 45MM registered users nationwide. The activity will generate over 200MM impressions and is projected to result in over 56K redemptions.

Dan Winter, Is the trend growing for manufactured honey? Ladhoff, hard to say. Jeff Caley says less than 5%. Demeritt, seeing that there is no problem with real honey, so no need for solution buying.

Livermore, is hot hone a growing trend? Ryan Tharp Gehring, can we send out the honey data trends link from honey.com?

Matt Halbgewachs, will promotions be spread nationally? Ladhoff, no more so to high traffic stores.

Sarah Neves, what is the normal offer? Ladhoff, offers are mostly brand specific.

Redemption is 100%to drive awareness and purchase intent, which doesn't cost anything.

IN-HOUSE MARKETING UPDATE – Jessica Schindler

Jessica Schindler, Marketing Manager for the NHB, gave the board an update on the in-house events that will be executed in 2024.

The Today's Dietician Spring Symposium was a great event for the NHB to participate in for 2023, staff wanted to make sure honey had a presence at the 2024 event. The smaller, more intimate group of Registered Dietitians (RDs) will get to experience all things honey when stopping by the NHB's booth, including all the newest research and educational

materials the Board has to offer. Two staff members will be onsite to talk to attendees about honey, honey bees and help answer any questions the RDs might have on the topic.

In addition, the NHB will exhibit at the largest event organized in-house in the fall, the Academy of Nutrition & Dietetics Food Nutrition Conference & Expo (FNCE). FNCE is a 3-day event that brings in close to 10K health professionals. Those who attend are seeking research and information to help them educate their clients. This is an excellent opportunity to get honey in front of attendees with the most recent honey and honey bee research. Schindler went on to explain that it is a terrific opportunity to show attendees what sets honey apart from other sweeteners and take them on a journey through the many unique honey varietals that bees make.

Schindler then went on to explain that the 2024 spring board meeting location (Orlando, FL) was chosen to highlight one of the biggest partnerships completed within the in-house program, the Epcot Flower and Garden Festival. The NHB is in its seventh year of sponsorship of the Honey Bee-stro marketplace, and staff is thrilled to be able to bring the NHB board members and honey industry guests to experience the marketplace in person.

Another component of the Honey Bee-stro marketplace partnership are the honey bee antennas shared with festival attendees free of charge. They have been such a hit in past years the team has again increased the offerings from 15K in 2023 to 25K in 2024, handing them out to park goers at strategic times throughout the festival, corresponding with Earth Day and World Bee Day.

Lastly, the Epcot festival team representative, Kristi Davis, as well as the head festival chef, Kevin Downing, joined the group for a presentation to highlight the evolution of the marketplace, including the food and footprint of the Honey Bee-stro in the Epcot park. Schindler then walked the board through what to expect for the visit, highlighting the educational components that they will see in the park.

FRIDAY, April 26, 2024

GENERAL SESSION

Mindy Ryan Tharp Gehring call meeting to order at 9:14 am

INGREDIENT MARKETING UPDATE – Keith Seiz

Keith Seiz, Brightly Creative, gave an update on the latest developments in the Ingredient Marketing Program. He shared that it has been riding a wave of success in the last year and started the presentation by showing a list of global companies that launched new

honey products in 2023, including Target (43) and General Mills (40). This success was despite headwinds in new product innovation as R&D departments have been tasked with cutting costs and not developing new products.

To solidify honey's position in the marketplace in this environment, the NHB launched a new advertising and creative campaign focused on the "value" of honey from a data-backed approach. This new messaging appears throughout our programs. Including advertising social media and our popular R&D Summits. These virtual webinars have been a big success, with eight conducted in 2023 and 8-10 scheduled for 2024. Another big success was the Ingredient Marketing Program's University Outreach. The NHB conducted a Honey Innovation Contest at Purdue University in April and will sponsor a Food Hackathon at Cornell in the fall. These are the two largest food science programs in the country.

The Ingredient Marketing Program will continue to evolve its messaging in 2024 and seek out new opportunities in the pet food and skin care industry. The NHB will talk about all of these opportunities at the 2024 Honey Industry Summit on October 23, 2024 in Denver, CO.

Sarah Neves, when you talk about new products and new companies, what research do you use? Seiz, just Jonathan and himself.

Missy Foot, Great job! I'm a big fan! Do people ask where is the honey from or what variety? Seiz, no, they are not getting technical.

FOODSERVICE UPDATE – Amy Shipley

Amy Shipley, Sterling-Rice Group, reviewed the progress of the 2024 National Honey Board Foodservice programs. She started her presentation with a recap of the latest industry report, and what that means for the National Honey Board.

Shipley then shared examples of recent NHB foodservice activities, including paid social campaigns and ongoing event planning. The National Honey Board is working on executing a program in partnership with the Culinary Institute of America in Napa, July 22-24. This event will be a hands-on, educational session with high-volume commercial operators, and will provide inspiration and education around honey that leads to driving additional honey sales at foodservice.

Link on NHB newsletter to the data

NUTRITION RESEARCH UPDATE – Barbara Lyle

Barbara Lyle, B. Lyle, Inc. in partnership with Porter Novelli, presented an update on human nutrition work supported by the NHB, noting she works closely with Kim Haider a dietitian from Porter Novelli to ensure results are translated in a relevant way for application to health professionals.

Before sharing results from two NHB funded projects, Lyle showed how results are translated from technical scientific publications into materials the board develops for health professionals. For example, the Mediterranean diet food pairing modeling project was published first as a technical paper heavy on words, statistics, and tables/graphs of results. From those results, a summary and infographic were written using simplified consumer-relevant language with visuals and recipes for health professionals. Outreach is in the form of posting directly on the board website, handing out at the annual meeting of dietitians in the US, and PR outreach by Porter Novelli. In addition to translating research funded by the board, summaries are also developed for highly relevant findings published in credible journals. Currently the NHB has developed 9 backgrounders (with another ready/in review) and 9 handouts for use with consumers. <https://honey.com/nutrition/hp-resources>

Summaries are amplified across the NHB programs, including the upcoming opportunity to tie together the role of honey bees in sustaining the food supply together with how honey fits in a healthy Mediterranean style diet at the upcoming NUTRITION 2024 meeting. This scientific meeting brings together nutrition scientists, researchers, educators, and nutrition health care practitioners. Remarks will be made by Dr. Kelley Parker, President of the Red River Valley Beekeepers in North Dakota, hobbyist beekeeper, and a post-doctoral research fellow at North Dakota State University.

Next, Lyle summarized recently completed research funded by the board.

Gut Health

Research at the University of Illinois was led by Dr. Hannah Holscher, a world expert on how food affects digestive health. In phase 1 published in March 2024, of the 4 varieties tested, clover honey was shown to support survival of a beneficial probiotic bacteria used on a commercial yogurt product when exposed to a simulated human digestion treatment. In dosing experiments, 1-2 Tbsp of honey per 170 g (6 oz) yogurt was effective. <https://honey.com/images/files/Clover-Honey-Added-to-Yogurt-Shows-Prebiotic-Potential-One-Page.pdf> Potential differences by variety has been reported by others as well, including a recently published study on 5 varieties, which has also been summarized on the NHB website translating findings for health practitioners. Professionals like dietitians often ask NHB about the prebiotic effect of honey and this type of research helps answer

them this question with respect to use of honey relative to expectations for digestive health. <https://honey.com/images/files/Pathogenic-Mechanisms-One-Pager.pdf>

When this honey-yogurt pairing was fed to subjects in a controlled trial (phase 2) regularity as measured by frequency of defecation was not improved but probiotic survival through digestion system was confirmed in humans. Of several secondary outcomes measured, there were no significant differences (measures included mood, cognitive function, and digestive symptoms). Results will be published in 2024.

Composition Analysis

Compositional analysis being handled by a Canadian team will be published in three manuscripts each focusing on a different aspect of health. The first paper published reports on clover, wildflower, orange blossom, alfalfa, buckwheat in terms of comprehensive analysis of components of interest to human nutrition. Of interest is that some of the phenolics differed between varieties, e.g., hesperidin to orange blossom and L-norvaline was found only in buckwheat. Composition results are being shared with the USDA for use in updating and expanding their food composition database called FoodData Central. There are two opportunities to improve how honey is represented in the USDA FoodData Central database.

- 1) NHB funded comprehensive analysis will be added to the cutting edge Experimental Foods section. This will be the only section of the database with values on the uniquely metabolized sugars and the antioxidant flavonoids. It's a big deal to get into this section (currently 0 entries for honey).
- 2) The new Foundational Foods database will include 4 entries supported by up to 32 individual product samples analyzed to show variability (or lack thereof).

We encourage all board members to become familiar with and share with others resources about nutrition on the NHB website. <https://honey.com/nutrition/hp-resources>

Michelle Poulk, on the food foundation – raw or not raw. No definition, there is not much difference.

NUTRITION PROFESSIONAL OUTREACH UPDATE – Laurel Muir

****Skipped due to time****

PRODUCTION RESEARCH PROJECTS FUNDED – Danielle Downey

Danielle Downey, Executive Director with Project *Apis m.* (PAm), introduced PAm's mission to fund projects and efforts focused on practical solutions to improve honey bee

health and support productive, profitable beekeeping. PAm has a small-but-mighty staff guided by a Board of Directors composed of industry leaders, and a volunteer Scientific Advisory committee with diverse expertise.

Being uniquely positioned to fund practical and applied honey bee research, PAm is proud to administer research projects for NHB. NHB has funded over \$2 million in research projects. This is a significant and stable part of PAm's annual research efforts on behalf of the beekeeping industry, although PAm receives funding from many other sources.

Downey reviewed the six new projects the NHB recently funded, including two updates relating to *Tropilaelaps* preparedness and training (Williams and Pettis), and their relevance to industry. Downey gave updates on outcomes thus far for two other previously funded projects with strong practical applications (Ricigliano and Bartlett).

Downey also provided key industry updates regarding:

- Almond acreage went down two years in a row.
- New technologies continued to disrupt pollination contracting.
- Nature Paper: *More flight in fall could be culprit for winter/spring loss.*
- NASS Census of Ag: A Population Increase?
- Yellow Legged Hornet (*Vespa velutina*) Arrives in U.S.
- Bee Informed Partnership closes... notable changes in our industry.

Earlier this year Downey had informed the NHB of PAm's intent to use the Bee Health Collective name and website as a launching point for our 501c3 fundraising arm. The site continues to grow, with expanding databases and resources, including becoming the new face of the USDA's "The Latest Buzz" email. PAm intends to continue to grow this space as an "industry hub" of accurate information and community resources.

PAm is thankful for the NHB's partnership in advancing the honey bee industry!

Dan Winter & Alan Turanski talked about the new mite and how it will be extremely detrimental to industry.

Almond acreage went down for 2nd year in a row, temperature swings affecting the bees more. Industry members looking at indoor storage, climate controlled. Robot Beehive technology is becoming more prominent.

NASS Census-adding 1 million hives in 2023- everyone questioning the data.

Doug Hauke, Texas gave Ag exemptions, so everyone put a hive on their property, so the numbers were very skewed and unable to accurately record how many hives.

INDUSTRY COMMUNICATIONS & OUTREACH – Jess Buchanan

Jess Buchanan, Porter Novelli, discussed how the NHB is laying the groundwork for Industry Communications. Tactics include new member toolkits with a “Who’s Who” section highlighting board members, NHB employees and agency partners, along with updated new member briefing sheet, as well as a review of the industry quarterly newsletter and media monitoring dashboard.

Buchanan then reviewed how the NHB is optimizing its presence on LinkedIn and participation in industry conferences. The NHB attended or sponsored the American Beekeeping Federation Conference, The American Honey Producers Association Conference and the National Honey Bee Expo. Along with the NHB’s presence at these events, she provided an overview of the City Guides that were created to highlight and support the honey industry in the cities where these conferences are held.

New tactics for engaging additional audiences this year include trade advertising and continuing to integrate content and messaging in 3rd party outlets and newsletters. Buchanan then walked through how these tactics will continue to reinforce and reach audiences in different and engaging ways.

Doug Hauke, attend Almond Board Meetings.

Missy Foote, trade with other boards or state and programs (not sure what she meant exactly)

CELEBRATING BEEKEEPING VIDEO ADVERTISING – Laurel Muir

Laurel Muir, Sterling-Rice Group, shared the latest updates about the ongoing Celebrating Beekeeping campaign, set to launch again on YouTube and Meta beginning in May. Celebrating Beekeeping video series advertising is targeted at consumers (Goodness Seekers), and this year will be reaching a new generation: Gen Z. The Celebrating Beekeeping stories help to share the importance of honey bees and provide transparency into the honey collection process across the globe. The latest video in the Celebrating Beekeeping series showcases beekeepers in Argentina.

OPEN DISCUSSION/QUESTIONS

Dan Winter, please sign him up for the Honey Summit

Joe Sanroma, will NHB continue to support the Tallow Research project? Lombard, we have and will if that is what the board members want us to continue to do.

ACTION ITEM VI: TO APPROVE THE 2024 Budget Amendment

Motion by Alan Turanski seconded by Bjorn Anderson and Dan Winters to accept the 2024 budget amendment.

ACTION ITEM VII: TO ACCEPT POLICY CHANGES – EEO Language in Employee Handbook

Motion by Sarah Neves, seconded by Michelle Poulk to accept the changes to the policies and passed to approve.

ACTION ITEM VIII: TO ACCEPT POLICY CHANGES – Accounting policy Language

Motion by Bjorn Anderson, seconded by Matt Halbgewachs to accept the changes to the policies and passed to approve.

Adjourn – upcoming Board Meetings/Save the Dates

Industry Summit 2024
Denver, Colorado

October 23, 2024
Thompson Hotel - Denver, Colorado
October 24 & 25, 20224

Spring 2025
San Diego, California
April 24 & 25, 2025

Fall 2025
Boulder, Colorado
October 23 & 24 2025

ACTION ITEM VIII: TO ADJOURN THE MEETING

Motion by Alan Turanski, seconded by Joe Sanroma to adjourn the meeting and passed to accept.