



# National Processed Raspberry Council

Effectiveness Evaluation  
2014-2016



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## Executive Summary



## EXECUTIVE SUMMARY

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This evaluation of the National Processed Raspberry Council is carried out as part of the 1996 Farm Bill requirement that each Research and Promotion board fund an independent evaluation of its programs at least once every five years. The evaluation focuses on 2014-2016.

The methodology used is twofold. First, it is outcome-based, detailing activities completed in the areas of nutrition research and marketing communication. Second, it is qualitative, providing an analysis of how the Council is faring against key food trends identified via Food Foresight, a third-party trends intelligence system. The methodology chosen stems from lack of sufficient data to utilize traditional, econometric techniques used for similar evaluations. Key findings from the outcome-based section of this analysis include:

- The Council's nutrition research program is strong and rooted in strategically chosen research areas that fuel a greater understanding of nutritional benefits of raspberries and provide meaningful learnings for marketing communication efforts. Research priorities include diabetes (including metabolic syndrome), cardiovascular disease and cognitive/motor function. During the time period of this evaluation, the Council funded more than a dozen studies, with careful consideration made regarding the scientific integrity of the projects funded.
- The Council's marketing communication program utilized an influencer-based approach, working with parties and individuals (such as registered dietitian nutritionists) who help tell the story of Real Red Raspberries. By doing so, the Council serves as a good steward of industry funds, maximizing investment made by the industry. In addition, the Council implemented a variety of tactics including media relations, social media, influencer outreach, event/conference engagement and content creation.

The summary below highlights trends identified in the qualitative section of this analysis, and an assessment of how the Council stacks up against those trends.

**Trend: Consumer Engagement With Food Driving More Scrutiny of 'Big Ag'**

*How the Council Stacks Up:* The Council has planned for such scrutiny with the development of a crisis plan. In addition, it is proactively addressing sustainability concerns in its communications and showcases the people behind the industry. Opportunities exist for greater knowledge of the issues most critical to target audiences and for a better understanding of the sustainability metrics of the Council's membership with the goal of continuous improvement.

**Trend: Personalized Nutrition on the Horizon, as Knowledge of the Impacts of Food on Health Expand Dramatically**

*How the Council Stacks Up:* The Council is doing a good job building off this trend by continuously expanding research regarding the nutrient profiles of its products with the goal of understanding how they fit in with today's health environment. Moving forward, research priorities should be subject to regular review to identify new areas of emerging research opportunity, and the impact of raspberries in a world of personalized nutrition.



## EXECUTIVE SUMMARY

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### **Trend: Food and Health Information is Increasingly Socialized**

*How the Council Stacks Up:* The Council has gone to where its audiences are: online and in social media, connecting with target audiences in relevant ways. In addition, the Council is using storytelling as a powerful tool to connect with audiences and communicate in a way that aligns not just with facts, but with personal values. Moving forward, the Council would benefit from continued storytelling and a clear and compelling messaging strategy that aligns with shared values of its audiences. The organization should also continue to monitor the world of socialized information for engagement opportunities.

### **Trend: Science is Vulnerable to Issues of Public Trust**

*How the Council Stacks Up:* The Council supports credible research that is committed to the highest standards of quality and scientific integrity. The Council follows a stringent process when determining what research projects should be funded. Moving forward it would benefit by developing specific and published criteria that it will use for determining which projects it will fund along with standards for disclosure and sharing of research results.

### **Trend: Foodservice Operators Look to add More Produce and Bold Flavor to Menus**

*How the Council Stacks Up:* The Council has put forth a strong effort toward increasing consumption of frozen and processed raspberries in foodservice and with food manufacturers, including efforts aimed at those responsible for menu planning. In this outreach, the Council focused not only on product uses but also on health benefits of frozen and processed raspberries. Moving forward, the Council should continue to look for ways to increase product usage at foodservice and among food manufacturers. Exploring how raspberries can complement bold, world flavors is also of benefit and in alignment with consumer desires for fresh flavor offerings.

Overall, the Council has made significant and meaningful strides during the three years of the evaluation period, providing solid return on industry investment. Its nutrition research efforts are strategic and fruitful in yielding meaningful results that contribute not only to the Council but also to an important body of nutrition research overall. Its marketing efforts too are strategically chosen based on consumer trends and research, and to maximize reach and effectiveness. Lastly, it has responded well to marketplace trends and demonstrates continuous improvement and growth in all areas.



## Methodology & Purpose of Evaluation



## METHODOLOGY & PURPOSE OF EVALUATION

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This evaluation of the National Processed Raspberry Council is carried out as part of the 1996 Farm Bill requirement that each Research and Promotion board fund an independent evaluation of its programs at least once every five years. The methodology used here is twofold:

- 1. Outcome based:** The report details activities completed by the Council over the outlined time period for two main categories: nutrition research and marketing communications – the two key functions of the program. Each category is examined through the following lenses:
  - Budget allocated
  - Activities completed
  - Results/measurable indicators of success (based on what information is available – some qualitative and some quantitative)
  - Overall assessment of program activity
- 2. Qualitative:** The report also gives a qualitative analysis of how the Council is faring against trends substantiated through Food Foresight, a trends intelligence system developed by Nuffer, Smith, Tucker in collaboration with the California Institute of Food and Agricultural Research at the University of California, Davis. Specifically, Nuffer, Smith, Tucker outlines relevant trends and discusses how the Council is building on those trends to its advantage and/or how the Council can make improvements in the future.

By reporting on the two above mentioned goals, it is the intention of this report to showcase value for investment in the program by the processed raspberry industry. That said, shareholder return using traditional econometric models used for program evaluation are not appropriate for evaluation of this program for various reasons, including the lack of sufficient data to utilize econometric techniques. Consider:

- Limited per capita consumption data is available for processed raspberries. The most recent data published by USDA-ERS is for 2015 which corresponds to the period the Council began building its marketing infrastructure, conducting benchmark consumer and trade research, and conducting an educational outreach program in earnest. In the future, this data may be more valuable, as it will reflect consumption increases or decreases after the Council has implemented programs. That said, the relatively small nature of the program makes statistical analysis and econometrics difficult at best.
- While data is available for supply (domestic production and imports), there is no data available to showcase quantity of frozen raspberries sold at retail or trade (demand data) either through USDA or private industry data.
- The cost to monitor true increases in demand over the given time period would be cost-prohibitive given the relatively small budget of the National Processed Raspberry Council.

### **Purpose of Evaluation:**

The purpose of this evaluation is to provide an independent look at the Council's programs, and is designed to:

- Meet accountability requirements of USDA and constituents. Specifically, this evaluation will showcase value of the National Processed Raspberry Council to its assessment paying members.
  - Acknowledge and enhance project performance.
  - Improve decision making for the future.
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About Nuffer, Smith, Tucker  
& Food Foresight





## ABOUT NUFFER, SMITH, TUCKER & FOOD FORESIGHT

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Nuffer, Smith, Tucker is a consultancy firm based in San Diego, California specializing in strategic planning, public relations and marketing communications. While organizations from a variety of industries have benefited from NST's knowledge and discipline, NST is a company whose people have cut their teeth on agriculture. Current and past agri-food clients include a variety of agricultural marketing orders and research and promotion boards, including almond, avocado, beef, blueberry, cherry, citrus, dairy, forest products, honey, kiwifruit, mango, mushroom, pear, pork, potato, strawberry, table grape, tomato and watermelon.

NST is also the founder of Food Foresight, a trends intelligence system for the agri-food marketplace. Food Foresight is a collaboration between NST and the California Institute of Food and Agricultural Research at University of California, Davis. It is designed to distill exhaustive data into useful and digestible information for decision making. The trends identified are the result of an in-depth process that includes:

- **Media scan/data run** – More than 20 issue categories, from air quality to weight control, relevant to the agri-food chain are tracked over a six-month period. Traditional media, social media, academic journals, the work of NGO groups and more are scanned and articles collected and assembled into a database.
- **Food Foresight meeting** – The information is scanned and evaluated by a blue ribbon panel representing various facets of the agri-food industry – from retail, to foodservice, production agriculture, the environment, health care, food safety, global economics and even the social sciences. The make-up of the panel is extremely important as it provides both a wealth of expertise and a diversity of perspectives – both essential to providing a thorough external analysis. Over a two and a half day meeting, the panel reviews the scan and begins to outline trends likely to impact the agri-food chain.
- **Trends substantiation/validation** – Following the meeting, further research is done to ensure the trends can be substantiated and validated.
- **Development of a Food Foresight report** – A report is then written outlining key trends, implications for the agri-food marketplace and questions for partner consideration. This report then becomes the foundation for strategic planning.

NST brings this knowledge to the table for its clients, helping agri-food organizations anticipate and accelerate opportunities and redirect or overcome challenges, as they strategically plan for the future. In the context of this analysis, the Council activities are evaluated for how well they align with select Food Foresight trends and their implications.



National Processed Raspberry Council



## NATIONAL PROCESSED RASPBERRY COUNCIL: INDUSTRY BACKGROUND

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The mission of the National Processed Raspberry Council (NPRC) is to build demand and secure the long-term viability of the industry. The Council held its first organizational meeting in June 2013 following a multi-year process to unite the raspberry industry. The NPRC, created under the Commodity Promotion, Research and Information Act and administered under the oversight authority of the USDA/AMS, is responsible for marketing processed raspberries in the United States and is committed to promoting the growth of the entire processed raspberry industry.

Raspberry growers and importers from North America, South America, Europe, and Asia are represented on the Council by seven domestic producers, two foreign producers, three importers, and a public member. Under the Raspberry Order, domestic producers and importers are assessed entities. In some instances, producers are vertically integrated and are also processors. Small family owned and operated farms are typical of the industry, with many families farming the same land for generations. The raspberry industry grows, harvests, freezes and ships its crop with a focus on food safety, sustainable practices and resource management (e.g., water, air, land). Products supplied by the raspberry industry include individually quick frozen (IQF) raspberries, raspberry puree and juice concentrate.

Health research priorities are diabetes (including metabolic syndrome), cardiovascular disease, and cognitive/motor function. The Council considers studies in other areas including osteoporosis, cancer and general/chronic inflammation. As a matter of policy, the first priority for all sponsored research is human and/or clinical studies. Research into new processing technologies and food safety practices is also of interest to the Council.

The Council is committed to a long-term marketing communications program based on delivering a consistent message designed to result in measurable demand growth for processed raspberries. Current target audiences include the trade (foodservice operators, food manufacturers), food writers (bloggers and those who write for print media and consumers), and health care professionals.

Research and promotion programs are implemented by a dedicated team of marketing specialists, and are funded by an assessment levied on domestic producer and importers.



# NATIONAL PROCESSED RASPBERRY COUNCIL: RELEVANT INDUSTRY DATA

## U.S. PROCESSED RED RASPBERRY SUPPLY

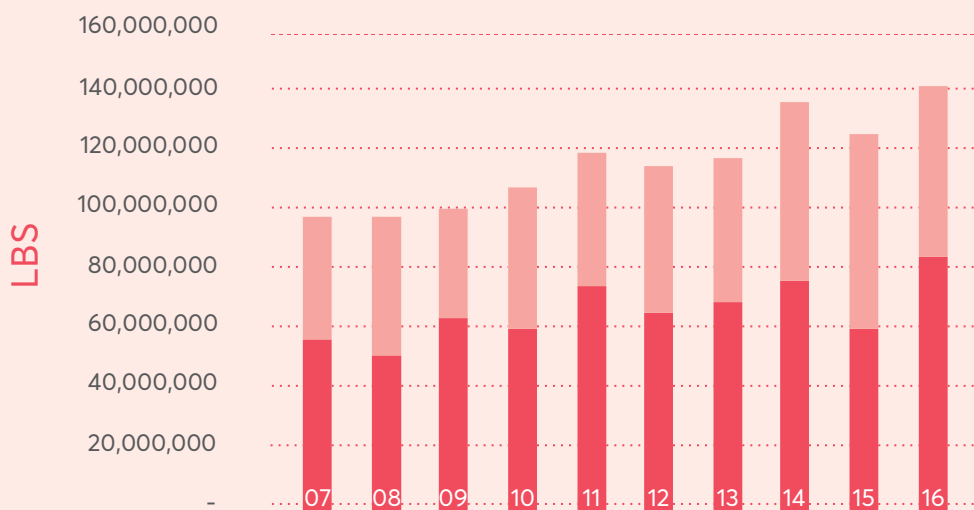
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
DOMESTIC VOLUME	26,603	24,521	29,954	28,490	35,063	31,057	32,553	35,609	28,244	39,382
IMPORT VOLUME	19,048	20,737	16,967	21,653	20,460	22,344	21,827	27,460	30,087	26,227

<b>TOTAL (METRIC TONS)</b>	<b>45,651</b>	<b>45,258</b>	<b>46,921</b>	<b>50,142</b>	<b>55,523</b>	<b>53,401</b>	<b>54,380</b>	<b>63,069</b>	<b>58,331</b>	<b>65,609</b>
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### U.S. MARKET SHARE

DOMESTIC	58%	54%	64%	57%	63%	58%	60%	56%	48%	60%
IMPORTS	42%	46%	36%	43%	37%	42%	40%	44%	52%	40%

## U.S. MARKET, TOTAL SUPPLY



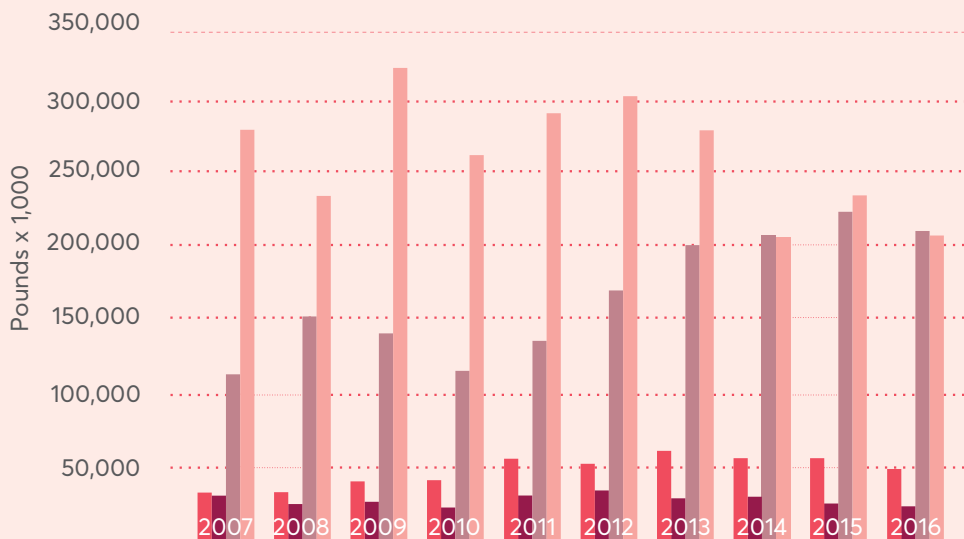
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
IMPORT VOLUME	41,994	45,717	37,406	47,736	45,107	49,260	48,120	60,538	66,330	57,820
DOMESTIC VOLUME	58,650	54,059	66,036	62,808	77,300	68,468	71,767	78,504	62,267	86,822

Source: 2007-2013 U.S. Production: USDA/NASS  
 2014-2016 U.S. Production: NPRC First Handler Reports  
 Imports: USDA/FAS



## NATIONAL PROCESSED RASPBERRY COUNCIL: RELEVANT INDUSTRY DATA

### BERRIES IN COLD STORAGE AS OF DECEMBER 31



RASPBERRIES

BLACKBERRIES BLUEBERRIES

STRAWBERRIES

The data show that while raspberry production and supply have increased (by about 25 percent) over this four-year period (See Page 12), cold storage inventories have remained relatively stable and at a level that maintains sufficient stock to avoid "out of stock" situations while at the same time, not becoming a burdensome oversupply. It can be reasoned that the difference between production and cold storage inventory was absorbed by the marketplace and represents demand growth. While this absorption can't be attributed solely to the Council's programs, it can be inferred the Council's efforts may have helped create an environment conducive to growing demand for and consumption of processed raspberries; the efforts contributing to this boost are outlined in this report.

Source: USDA Economics, Statistics, and Market Information System

## 2014-2016

	FY 2014	FY 2015	FY 2016
<b>REVENUE</b>	\$2,730,190	\$1,267,327	\$1,569,714
<b>EXPENSE</b>			
Research and Promotion	\$454,615	\$1,348,165	\$1,483,910
General Administration	174,449	158,348	151,356
Travel and Meetings	14,545	18,610	15,280
Fees and Insurance	3,499	35,853	17,556
Federal Government Fees	165,807	76,740	88,691
	\$812,915	\$1,637,716	\$1,756,793

FY 2014: July 23, 2013 - September 30, 2014  
FY 2015: October 1, 2014 - September 30, 2015  
FY 2016: October 1, 2015 - September 30, 2016



## NATIONAL PROCESSED RASPBERRY COUNCIL: OVERARCHING STRATEGIES

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### **Building an Organization From the Ground Up**

When the National Processed Raspberry Council was established in 2013, it had a challenging task at hand: building an organization from the ground up – and the organization did so strategically and thoughtfully. To lay its foundation, the Council originally looked to the Washington Red Raspberry Commission, which had recently completed a strategic plan examining market conditions and identifying strategies to increase consumer and end user knowledge about raspberries with the ultimate goal of increasing consumption. The Council used the Washington Red Raspberry Commission plan as its foundation to direct its initial planning process. The establishment of the Council occurred via three primary phases:

- **FY 2014: Building Organizational Infrastructure** - Bylaws and Policies and Procedures were put in place, contracts were entered, and an organizational structure was created to best support the processed raspberry industry. For the purpose of continuity, the newly established National Processed Raspberry Council put a priority on continuing and building upon the work previously conducted by the Washington Red Raspberry Commission. The maintenance of existing marketing and research activities allowed the Council to get up to speed quickly while setting up the very nature of the new organization to ensure even greater success in future fiscal years.
- **FY 2015: Growing Research Infrastructure** – A Raspberry Roundtable (discussed in greater detail below) was held to identify emerging research opportunities for raspberries. A Request for Proposals was created and issued as a result of the Roundtable, resulting in almost twenty proposals being received for consideration by the Council. Research is the fuel that drives marketing messages, and with a longer time horizon required to achieve results, the Council addressed this need first.
- **FY 2016: Activating a Strong Marketing Infrastructure** – Consumer and trade research was conducted to better understand consumer and trade dynamics, and to find out who was consuming processed raspberries. Baseline data was used to create the Council's first marketing plan and will be used in future years for comparative purposes. Coincidentally, all existing collateral and educational materials were surveyed to ascertain "holes" in the raspberry story. Target audiences were identified, initial communication partnerships were established, and outreach programs began. The Council's digital assets were inventoried, and a digital strategy was created to guide the Council's transition to an enhanced web presence supported by a dynamic and engaging social media campaign across multiple platforms.

### **Philosophy on Nutrition Research**

Dietary guidelines around the world recommend daily consumption of five to nine servings of fruits and vegetables for their health benefits. Raspberries benefit from the halo effect of fruits and vegetables overall. Berries, in particular, are viewed favorably as they are the source of several essential nutrients and beneficial phytonutrients. They are also considered a healthy food choice since they are low in total calories and fat, are high in dietary fiber, and are a good source of vitamin C, folate, potassium and magnesium.

The Council's focus on nutrition research is designed to fuel a greater understanding of the nutritional benefits of raspberries and parlay into marketing communication efforts to further the mission of the Council.

Research funded by the Council is also strategically chosen. Based initially on guidelines from the Raspberry Roundtable, projects are chosen by careful examination of research

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## NATIONAL PROCESSED RASPBERRY COUNCIL: OVERARCHING STRATEGIES

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needs and priorities most likely to yield beneficial and useful information to the program. The Council also works with leaders in the scientific community who abide by the highest level of scientific integrity. Over the years, the research program has been refined and is now focused on human and/or clinical studies over other research efforts.

### **An Influencer-Based Approach**

While the target audiences for raspberry consumption are plentiful, the Council's resources are limited. Therefore, as good stewards of the industry's funds, the Council focusses its efforts where it will get the most bang for its buck: by working with influencers and in platforms where messages related to frozen and processed raspberries can be easily shared.

"Influencers" are parties who can help tell the story of raspberries (from health benefits to product uses and recipe ideas) on behalf of the Council. Thus, you will see many marketing communication efforts focused on health professionals and social media advocates, who the Council believes are among the greatest influencers of food choices.





## Outcome-Based Assessment



## OUTCOME-BASED ASSESSMENT: NUTRITION RESEARCH

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### Summary

There is growing interest in how diet can not only fight a multitude of ailments but also help proactively contribute to optimal health. The dense nutritional profile of raspberries has potential for a number of positive health outcomes and is an important area for the Council to invest in nutrition research. The National Processed Raspberry Council embraced this opportunity, refined its approach and funded more than a dozen studies over FY 2014-2016. This research is an important tool to drive demand for raspberries when integrated into a promotions program.

As part of the Council's evaluation of appropriate research projects, careful consideration is made about the scientific integrity of projects funded to ensure credibility of the research. Research proposals undergo a review process, including being evaluated by the Council's Research Committee assisted by a contracted scientific advisor. The Council also requires that quarterly reports be provided that chart the project's progress against goals.

While the Council's research is building an important body of scientific knowledge supporting raspberry's role in a healthful diet, the Council is also evaluating its research for marketing potential. Scientists are encouraged to publish in peer-reviewed journals and the Council requests notification when researchers are presenting on their research topic or submitting reports. This gives the Council opportunity to support the researchers through press releases and other communications, thereby increasing awareness of the study's results and highlighting the strong nutritional assets of raspberries in support of demand creation.

It's important to note that the focus of the Council's research is on nutrition. While post-harvest research and product innovation research were considered, the Council believes nutrition research will have the greatest impact on the organization's ability to achieve its mission on behalf of its members.

### Budget Allocated\*:

- FY 2014: \$200,194
- FY 2015: \$652,245
- FY 2016: \$763,587

*\*Budget is for research programs only and does not include support or administrative overhead.*



## OUTCOME-BASED ASSESSMENT: NUTRITION RESEARCH

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### Key Activities Completed

The following strategic research approach carried across the evaluated timeframe of FY 2014-2016 guiding the research funding decisions detailed in subsequent pages:

- **Berry Health Symposium:** The Council attended the Berry Health Benefits Symposium, a biennial conference of scientists from around the world conducting research on the health benefits of berries. Hosted by the National Berry Crop Initiative, the event provided the Council with the opportunity to identify areas where funded research could have the largest benefit and solicit research proposals.
- **Raspberry Roundtable:** The Council hosted a Raspberry Roundtable following the Berry Health Benefits Symposium to ascertain more specific opportunities for raspberry research. Participants included leading scientists who understood the conflux of research and marketing. Through the Roundtable, the Council set a series of priorities for future funded research, which were subsequently adopted to guide solicitation of research proposals. Those priorities in order are:
  - Diabetes, to include vascular diseases and metabolic syndrome
  - Cardiovascular health and diseases
  - Cognitive function/motor skills
  - Osteoporosis and muscular-skeletal health
  - Cancer, including breast, esophageal and colon
  - General and/or chronic inflammation

### FY 2014 Highlights:

The Council selected the following new projects for funding:

Alan Crozier	Identification and Quantification of Potentially Protective Polyphenol Derivatives in the Circulatory System Following Red Raspberry Consumption <ul style="list-style-type: none"><li>• <b>Objective:</b> Gain an understanding of bio-availability and the metabolites responsible for chemo-protection and their impact on cancer cells.</li></ul>
Daniele Del Rio	The Protective Effect of Red Raspberry Polyphenol Metabolites on the Development of Chronic Disease Mechanisms <ul style="list-style-type: none"><li>• <b>Objective:</b> Investigate the inter-relationship between cardiovascular disease and diabetes, two manifestations of chronic inflammation.</li></ul>
Chris Gill	Raspberry Consumption and Colonic Health <ul style="list-style-type: none"><li>• <b>Objective:</b> Investigate the impact of a raspberry diet on colonic micro-biota to demonstrate how the body absorbs important bio-actives and nutrients at a therapeutic level.</li></ul>
Shanil Juma	Bone Protective Effect of Whole Red Raspberries in Postmenopausal Women <ul style="list-style-type: none"><li>• <b>Objective:</b> Complement findings from a previous study on raspberries' relationship to arthritic inflammation, bone and joint health.</li></ul>



## OUTCOME-BASED ASSESSMENT: NUTRITION RESEARCH

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### FY 2015 Highlights:

The Council selected the following new projects for funding:

Meijin Zhu	Dietary Gut Microbiotca <ul style="list-style-type: none"><li>• <b>Objective:</b> Understand the interaction between gutmicrobiota and biological metabolites, and create a body of science on biomechanisms.</li></ul>
Neil Shay	Defining the Metabolic Benefits of Raspberries and Raspberry Compounds <ul style="list-style-type: none"><li>• <b>Objective:</b> Examine the ability of raspberries and specific raspberry compounds to influence a series of metabolic conditions of interest to the raspberry industry.</li></ul>
Giuliana Noratto	Protective Effects of Raspberries Against Diabetes Through Modulation of Gut Microbiota <ul style="list-style-type: none"><li>• <b>Objective:</b> Assess the health benefits of raspberry consumption as it pertains to diabetes, diabetes-induced metabolic disorders, inflammation and cardiovascular risk factors.</li></ul>
Arpita Basu	Postprandial Metabolism and Type 2 Diabetes <ul style="list-style-type: none"><li>• <b>Objective:</b> Address the role of raspberries in the dietary management of Type 2 diabetes, and the effects of raspberries to modulate metabolic stresses contributing to vascular dysfunction and cardiovascular disease in diabetic patients.</li></ul>
Jack Losso	Molecular Mechanisms Underlying the Protective Effects of Red Raspberries Against Insulin Resistance <ul style="list-style-type: none"><li>• <b>Objective:</b> Identify the effects of whole red raspberry consumption on insulin sensitivity and inflammation.</li></ul>
Britt Burton-Freeman	Red Raspberries and Insulin Action <ul style="list-style-type: none"><li>• <b>Objective:</b> Examine the relationship between red raspberries and oxidative inflammatory stress, and the relationship of these responses to insulin action and red raspberry consumption to reduce diabetes risk factors.</li></ul>
Ara Kirakoysan	Cardioprotective Benefits of Red Raspberries <ul style="list-style-type: none"><li>• <b>Objective:</b> Address the moderation of metabolic syndrometo lessen the public health burden of heart disease by reducing cardiovascular risk factors of elevated cholesterol andinsulin resistance.</li></ul>
Shyam Sablani	Ultraviolet Light (UV-C) Treatment for Improving Safety of Red Raspberries <ul style="list-style-type: none"><li>• <b>Objective:</b> Investigate the efficiency of ultraviolet light to inactivate foodborne pathogens and its effect on berry quality.</li></ul>



## OUTCOME-BASED ASSESSMENT: NUTRITION RESEARCH

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### FY 2016 Highlights:

The Council selected the following new projects for funding:

Ana Rodrigues-Mateos	Impact of Raspberry Polyphenol Consumption on Vascular Function in Healthy Individuals <ul style="list-style-type: none"><li>• <b>Objective:</b> Analyze the effects of raspberry polyphenols in vascular function in healthy individuals and provide necessary scientific data for future dietary recommendations.</li></ul>
Barbara Shukitt-Hale	The Effects of Raspberries on the Interaction Between Inflammation, Psychomotor and Cognitive Behavior <ul style="list-style-type: none"><li>• <b>Objective:</b> Explore the interaction between baseline motor performance and daily raspberry intake required to achieve improvement in motor function.</li></ul>
Amanda Carey	Effects of Red Raspberry Supplementation on High Fat Diet-Associated Alterations in Behavior, Inflammation, and Brain Plasticity <ul style="list-style-type: none"><li>• <b>Objective:</b> Determine if dietary supplementation with red raspberries can allay the cognitive dysfunction associated with consumption of a high fat diet.</li></ul>
Shanil Juma	Effect of Red Raspberry Juice on Range of Motion, Pain Symptoms, and Cartilage/Inflammatory Markers in Individuals with Symptomatic Knee Osteo-Arthritis <ul style="list-style-type: none"><li>• <b>Objective:</b> Given the limitations and side effects of established osteoarthritis medications, explore bioactive components found in berries as a potential complementary or alternative treatment.</li></ul>
Min Du	Browning of White Fat to Prevent Obesity and Metabolic Syndrome: Role of Raspberry Polyphenols <ul style="list-style-type: none"><li>• <b>Objective:</b> Test whether polyphenols and dietary fibers associated with raspberry ingestion increase circulatory polyphenols and promote browning of white fat, eliciting strong hypoglycemic, hypolipidemic and anti-obesity effects.</li></ul>
Washington Red Raspberry Commission Co-sponsorship	Botrytis and Fungicide Resistance <ul style="list-style-type: none"><li>• <b>Objective:</b> Improve management of Botrytis fruit rot of raspberry.</li></ul>



## OUTCOME-BASED ASSESSMENT: RESULTS AND NST ASSESSMENT

### Results:

During the timeframe of this evaluation, the Council made significant progress in the areas of research it deemed critical after the Raspberry Roundtable. The following breakdown showcases the investment in each of the priority areas of research (note some studies addressed multiple priorities).

- Diabetes, to include vascular diseases and metabolic syndrome – 9 studies
- Cardiovascular health and diseases – 4 studies
- Cognitive function/motor skills – 2 studies
- Osteoporosis and muscular-skeletal health – 2 studies
- Cancer, including breast, esophageal and colon – 1 study
- General and/or chronic inflammation – 6 studies

### Overall Assessment

The Council took a strategic approach to exploring research projects through the Berry Health Benefits Symposium and Raspberry Roundtable, which led to projects being funded that filled important research needs. The Council's vetting process for research and requirement that researchers provide quarterly reports tracking progress toward hypotheses and original goals helped ensure scientific integrity and identify marketable communication opportunities. By leveraging research through marketing and promotions, industry dollars were maximized.

Regarding the appropriateness of projects funded, the Council stayed true to the priorities outlined at the onset. Due attention was paid to gut health – a nutrition area receiving increased attention by the research community, registered dietitians, health professionals and commodity groups (see page 39 for more details on this trend).

Even in the case where a hypothesis may not have been proven, Council-funded projects contributed to the larger body of science around the health and wellness of raspberries, and thus are a good use of industry funds.



## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

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### Summary

Marketing and promotions strategically built over the National Processed Raspberry Council's first three years strengthened and expanded with time to encompass key marketing pillars of: media relations, social media, influencer outreach, event/conference engagement and content creation.

During this time, the Council sought the outside expertise of a marketing contractor. Salt & Company, currently known as Wild Hive, was selected after a competitive bid process and currently manages marketing, promotion and communications activities. Research of consumer, trade, foodservice and retail audiences in 2015 offered reliable insights into the marketing and promotions potential within each segment. With this knowledge secured through research and expertise established via Wild Hive, marketing and promotion activities accelerated in 2015 and 2016.

As mentioned in the report's setup, the Council utilizes an influencer-based approach to marketing communications rather than focusing solely on direct-to-consumer or direct-to-trade outreach initiatives. This strategy amplifies the impact of program dollars by enabling influential voices to carry the program's messages forth to a wide audience. The program targeted a variety of influencers, including registered dietitians, bloggers and food editors with significant followings. These partnerships lent third-party credibility to positive messages about frozen raspberries' taste and nutritional attributes. Direct-to-consumer initiatives were also pursued when appropriate, in line with general marketing best practices.

Details of the integrated marketing and promotions activities are reported in the following pages.

### Budget Allocated\*:

- FY 2014: \$321,000
- FY 2015: \$757,500
- FY 2016: \$737,500

*\*Budget is for marketing and promotions programs only and does not include support or administrative overhead.*



## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

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### Key Activities Completed

Key marketing and promotion activities across evaluated timeframe of FY 2014 – FY 2016:

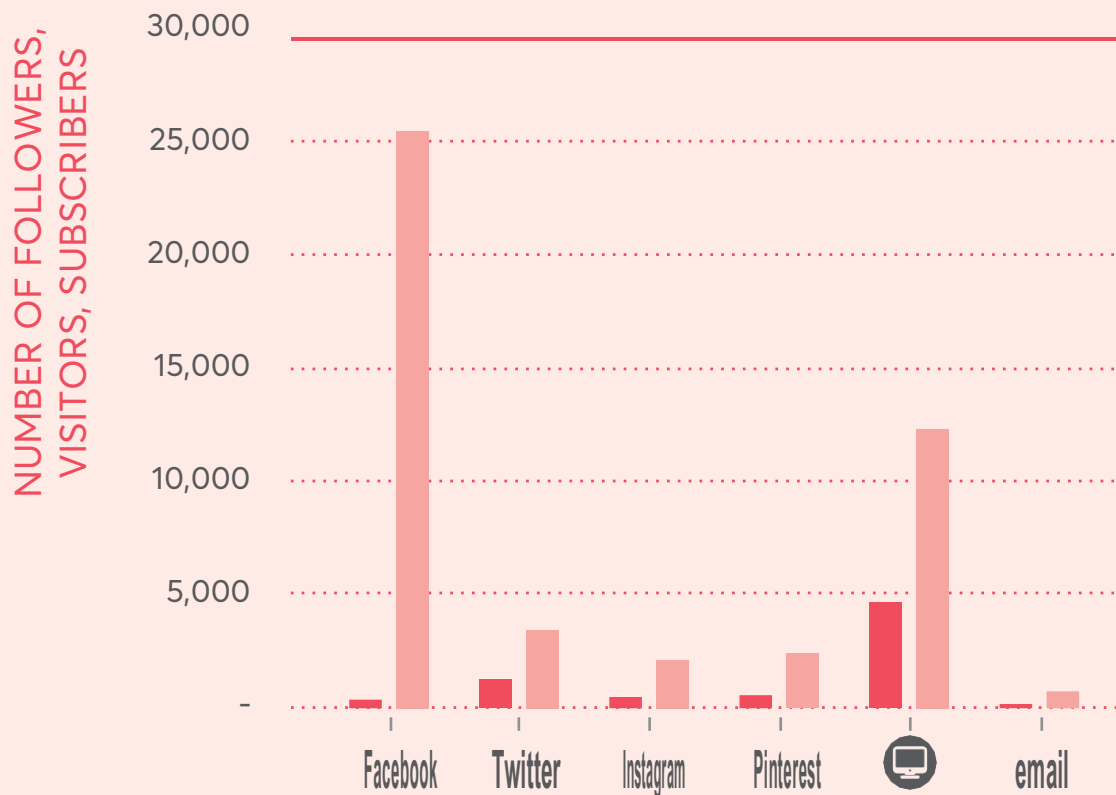
- **Media relations:** Communicated the benefits of frozen raspberries through mass media, including consumer-facing magazines, newspapers, broadcast outlets and websites. In addition, a trade media relations program was implemented to drive coverage in publications that reach foodservice, food manufacturing and retail decision makers, as well as produce industry members.
- **Social media:** Highlighted the taste and nutrition of frozen raspberries through popular social media platforms Facebook, Twitter, Pinterest, Instagram and YouTube to encourage product usage.
- **Ambassadors:** In FY 2015 and FY 2016, the Council worked with highly influential registered dietitian nutritionists (RDNs) as well as freelance writers and bloggers as ambassadors for the Council.
- **Events/Conferences:** The Council attended several conferences, including Academy of Nutrition and Dietetics Food and Nutrition Conference and Exposition; Sports, Cardiovascular and Wellness Nutrition Symposium; International Foodservice Editorial Conference; Nutrition Executives Study Group; and the American Association of Diabetic Educators and Society of Endocrinology conference during the evaluation period.
- **Harvest video production:** Produced a harvest video series to showcase the processed raspberry industry, including the family traditions behind raspberries, the industry's commitment to sustainable agriculture practices and the utilization of technology throughout the harvest process.
- **Annual harvest tours:** To expose influencers to the quality practices of harvest, environmental stewardship and nutrition of raspberries, the Council hosts an annual harvest tour. The goal is for tour attendees to become brand ambassadors championing raspberry messages to a broader public online and through their personal networks, or – in the case of foodservice operators or food manufacturers – to gain interest in working on product ideation utilizing frozen or processed raspberries.
  - In FY 2015, the Council targeted health and nutrition media writers.
  - In FY 2016, chefs, menu developers, product innovation specialists, ingredient decision makers and other key trade influencers participated.
- **Crisis communications:** Created a crisis communications plan to give management a framework for addressing emerging threats or crises. The Council developed an internal process for dealing with 13 potential issues, such as those related to environmental concerns, labor concerns and food safety.
- **Industry newsletter:** Distributed a quarterly newsletter (originally in print but transitioned to digital in FY 2015) to raspberry growers, processors, importers and friends of the industry.





## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

### DIGITAL SNAPSHOT 2015-2016



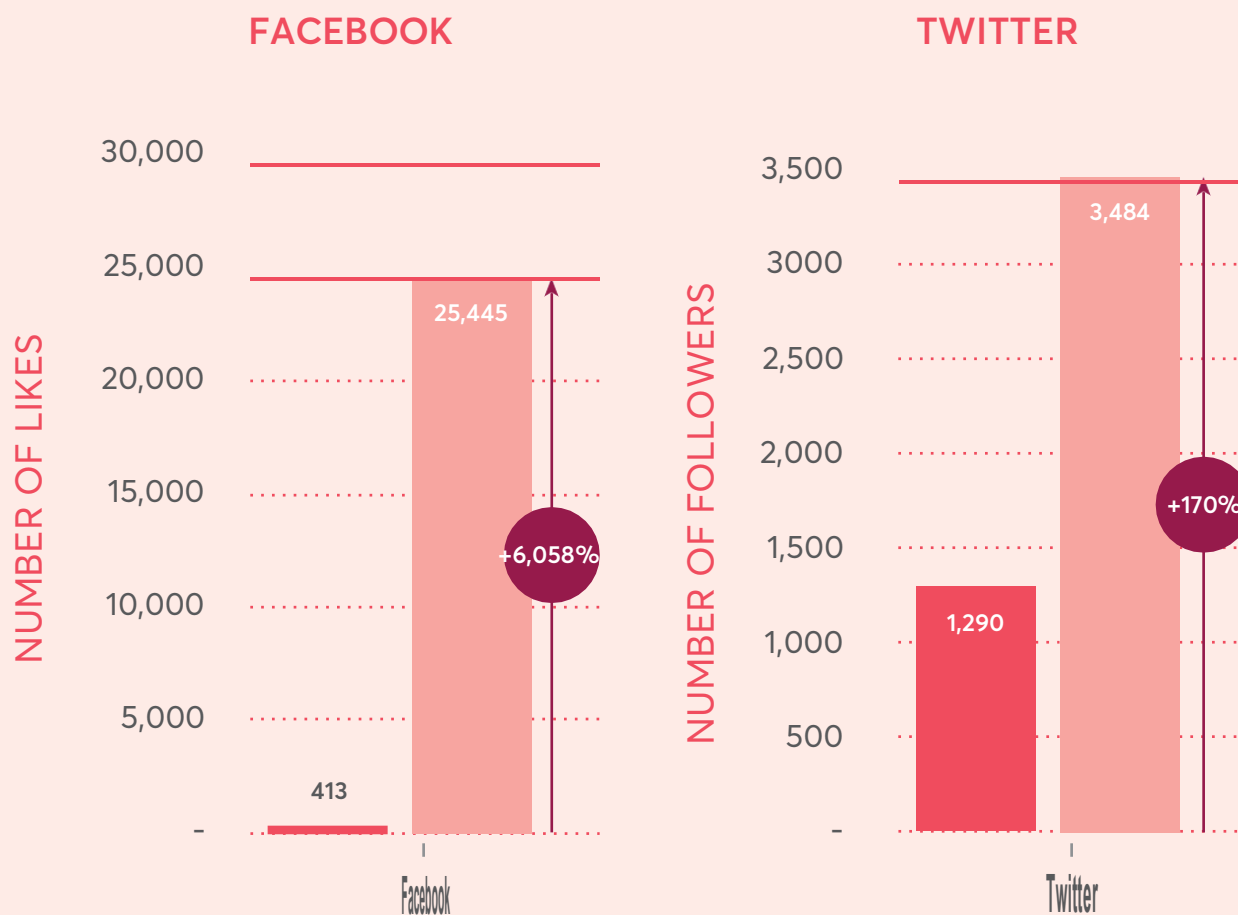
	Facebook	Twitter	Instagram	Pinterest	Website Visits	Subscribers
<b>2015</b>	413	1,290	531	608	4,688	216
<b>2016</b>	25,445	3,484	2,157	2,443	12,329	779
<b>% GROWTH</b>	6,058%	170%	306%	302%	163%	260%

The data show growth of social media followers, website visitors, and e-newsletter subscribers year over year for 2015-2016. This indicates the Council's marketing efforts were effective in building an audience of consumers and influencers in the digital space to set the foundation for ongoing communications efforts.



# OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

## SOCIAL MEDIA GROWTH 2015-2016



Year	Facebook Likes
2015	413
2016	25,445
% GROWTH	6,058%

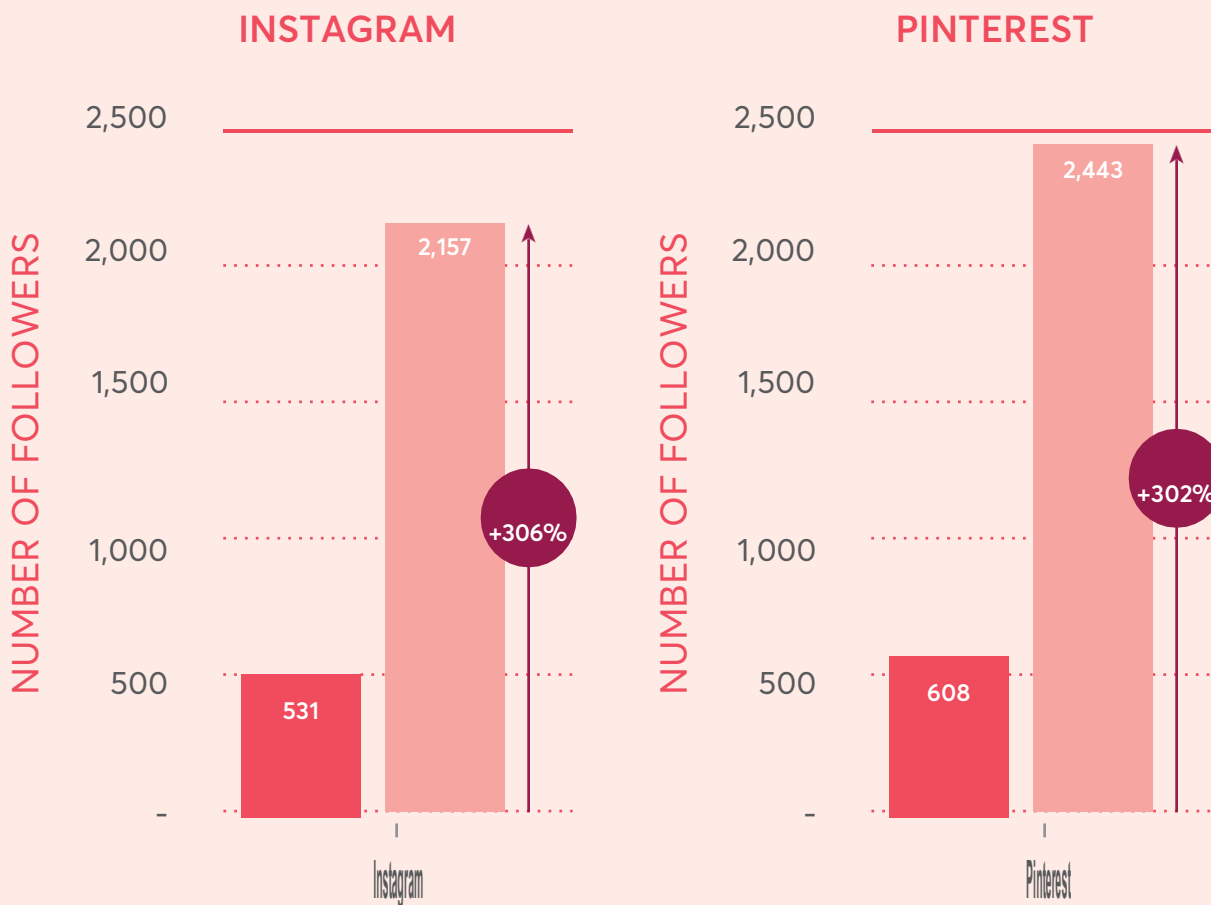
Year	Twitter Followers
2015	1,290
2016	3,484
% GROWTH	170%

As referenced on page 25, the data show year over year growth of Facebook and Twitter followers, for 2015-2016. This indicates the Council's marketing efforts such as social media community management, media relations, recipe development, video production, photography, and ambassadors were effective in developing and disseminating compelling content, which attracted followers to these two social media platforms.



# OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

## SOCIAL MEDIA GROWTH 2015-2016



Year	Instagram Followers
2015	531
2016	2,157
% GROWTH	306%

Year	Pinterest Followers
2015	608
2016	2,443
% GROWTH	302%

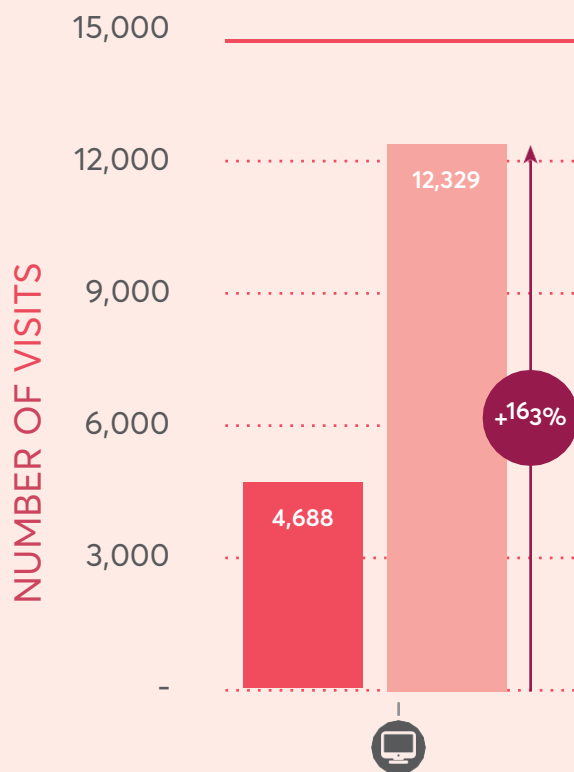
As referenced on page 25, the data show year over year growth of Instagram and Pinterest followers, for 2015-2016. This indicates the Council's marketing efforts such as social media community management, media relations, recipe development, video production, photography, and ambassadors were effective in developing and disseminating compelling content, which attracted followers to these two social media platforms.



# OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

## DIGITAL GROWTH 2015-2016

### REDRAZZ.ORG



Year	Website Visits
2015	4,688
2016	12,329
% GROWTH	163%

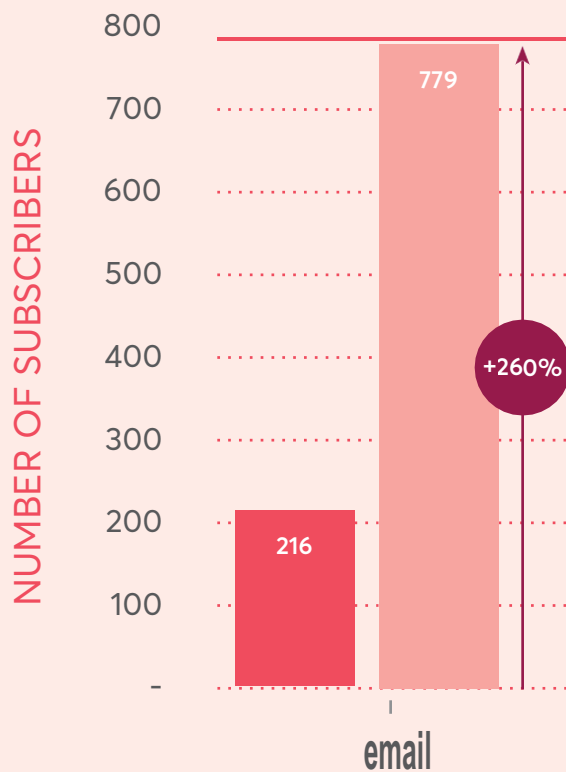
As referenced on page 25, the data show year over year growth of total website visits, for 2015-2016. This indicates the Council's marketing efforts, such as media relations, social media, ambassadors, and conferences and events were effective in driving interest in processed raspberries and thus increasing traffic to its website, redrazz.org.



# OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

## SUBSCRIBER GROWTH 2015-2016

### INDUSTRY NEWSLETTER



Year	Subscribers
2015	216
2016	779
% GROWTH	260%

As referenced on page 25, the data show year over year growth of e-newsletter subscribers, for 2015-2016. This indicates the Council's efforts such as compiling a database of industry members and disseminating meaningful content via the newsletter were effective in attracting a base of e-newsletter subscribers.



## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

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### FY 2014 highlights

- **New logo:** Developed a logo to give visual brand identity to the newly established National Processed Raspberry Council.
- **Copyright protection:** Registered and protected the Washington Red Raspberry Commission tagline "The Taste You Love, the Nutrition You Want" for potential use in communication efforts.
- **Social media:** Established key social media profiles, including Facebook, Twitter, Pinterest, Instagram and YouTube.

### FY 2015 highlights

- **Marketing communications research:** Commissioned three key research initiatives to gain valuable insights for marketing and promotion efforts.
    - **Trade research:** established baseline usage attitudes and awareness among food manufacturers and foodservice professionals, specifically those responsible for menu planning. Findings included:
      - Nutrition profile and flavor pairings generate the greatest interest among manufacturers.
      - Menu ideas or recipes and health benefit research generate the greatest interest among foodservice operators.
      - Restaurant menus, website research, cookbooks, patron requests, and articles in consumer media are among those mentioned most as sources for ideas for new menu items or specials.
      - Food Management, Flavor & the Menu, Food Processing, Restaurant Hospitality, and Restaurant Business are those most frequently mentioned as trade magazines respondents read recently.
      - Opportunity among foodservice operators appears greatest among national chains, business and industry, casual dining and among quick service.
      - With lack of availability mentioned most often as the reason for not using fresh raspberries, greater availability for year-round use of frozen and processed raspberries should be emphasized.
      - In addition to greater and consistent availability, consistent quality, better taste, better prices and labor-saving packaging should also be emphasized.
      - Emphasis should be placed on the fact that there is minimal to no processing and no use of artificial additives in frozen and processed raspberries.
      - Interest is strong, especially among manufacturers, for the Real Red Raspberry Trademark. Further development of the trademark and its use is strongly recommended.
  - **Consumer research:** Helped the Council better understand consumer purchase behaviors, persuasive messages, sources of food and nutrition information, and sentiment toward tag lines and product descriptors.
    - Men and women from 758 households were interviewed online, including current frozen raspberry purchasers, those who like raspberries but don't purchase frozen raspberries, and those who purchase fresh raspberries but not frozen.
    - Additional demographic information yielded audience-specific takeaways for marketing efforts. Research identified a target profile: 42-year old female or male with children likely to entertain guests at home who sources food ideas from cookbooks, TV chefs, websites, family, friends and social media.
    - Research also led the Council to consider specific retail habits worth targeting, including focusing on shoppers of Walmart, Target and natural food stores.
    - The tag line "The Taste You Love, the Nutrition You Want" generated the highest awareness, prompting the Council to retain the tagline for future marketing use.
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## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

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- **Retail and foodservice research:** Commissioned Mintel to assess raspberry usage in retail and foodservice. The report noted consumer trends in retail, general food trends benefiting raspberries, foodservice usage in various restaurant segments, and consumer perceptions toward health and nutrition messaging of raspberries on menus.
    - Research unveiled the following retail opportunities:
      - Growth of the snack/cereal/energy bar and yogurt categories demonstrate additional openings for processed raspberries.
      - Trends toward indulgent, richer, sweeter treats also allow for the application of frozen raspberries, purees and juice concentrates.
      - Raspberries were noted as having potential in savory applications, such as sauces and marinades.
    - Research presented the following opportunities to increase usage at foodservice:
      - Expand raspberries into entrees through use as toppings, sauces and spreads, and explore puree integration into custom beverages.
      - Highlight the ability to thaw frozen raspberries to upscale quick service restaurants, fast casual establishments and casual dining chains.
      - Promote year-round accessibility to break the bounds of seasonality.
      - Pair raspberries with fall and winter dishes to stay relevant outside summer months.
    - The Mintel commissioned research also encouraged the Council to identify the "story" of raspberries, similar to how blueberries, almonds, pistachios, kale and cranberries have cultivated an identity beloved by consumers at retail and foodservice.
  - **Website:** Updated the website in FY 2015 to include more video assets and rank higher in search engine results. Additionally, the industry newsletter was transferred from a print to digital edition to be more cost effective and align with modern communication practices.
  - **Influencer partnerships:** Built formal relationships with three registered dietitian nutritionists to serve as paid influencer ambassadors/spokespeople for the Council.
  - **Marketing library:** Built a library of marketing materials for use in outreach and promotions. This included a product photography shoot to get usable, high-quality graphics to showcase raspberry attributes and uses through print and digital media. Recipe cards were also created to highlight raspberry uses, with a goal of increasing understanding of product uses, and driving trial and use.
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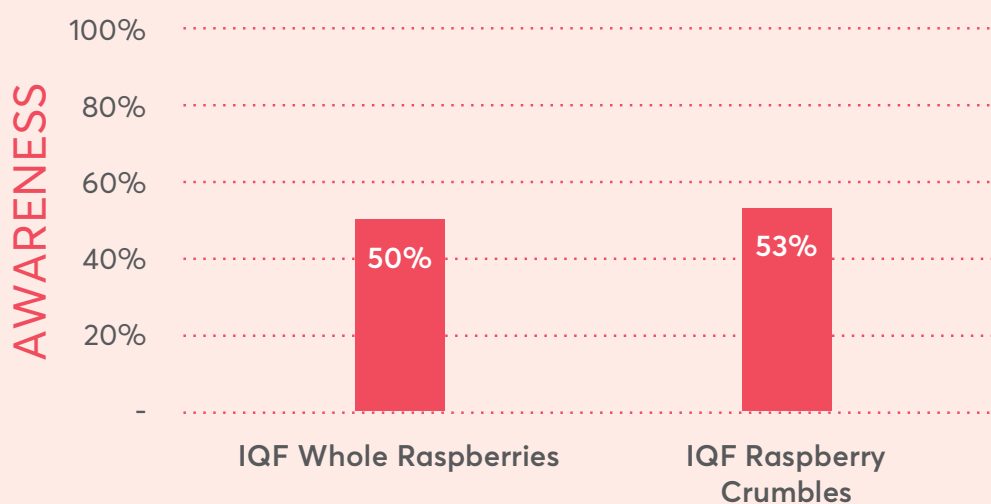


## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

Current awareness of IQF Whole Raspberries and IQF Raspberry Crumbles is 50 and 53 percent respectively, providing a baseline against which future progress and effectiveness can be measured.

### AWARENESS AND USE OF VARIOUS FORMATS OF RED RASPBERRIES – MANUFACTURERS (N = 104)

Among Previous, Current or Considering Use of Red Raspberries



Source: Manufacturers R&D Decision Makers Study and Foodservice Menu Decision Makers Study  
June 3, 2016



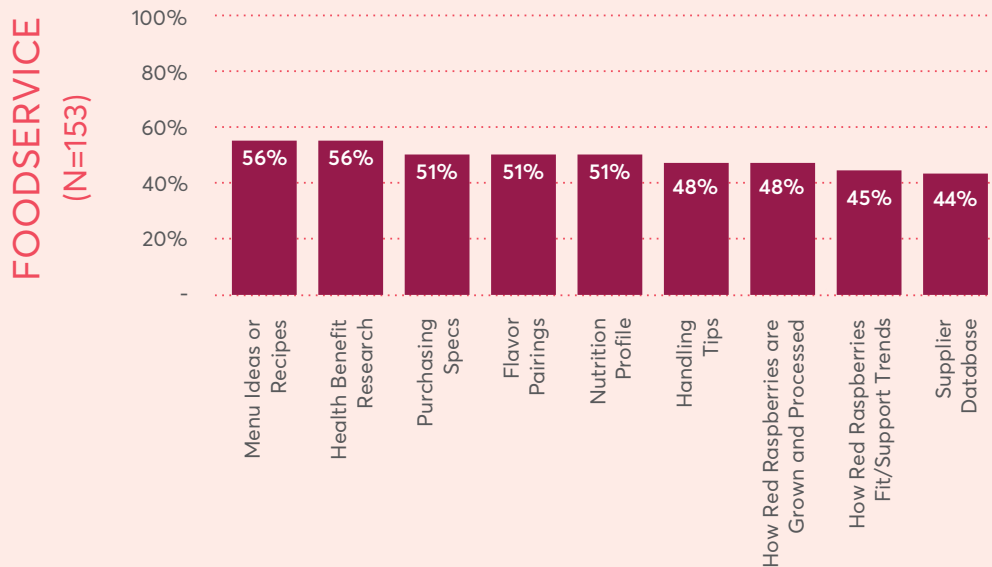


# OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

The program used these findings to inform its outreach strategy to foodservice operators.

## INFORMATION TYPES INTERESTED IN RECEIVING

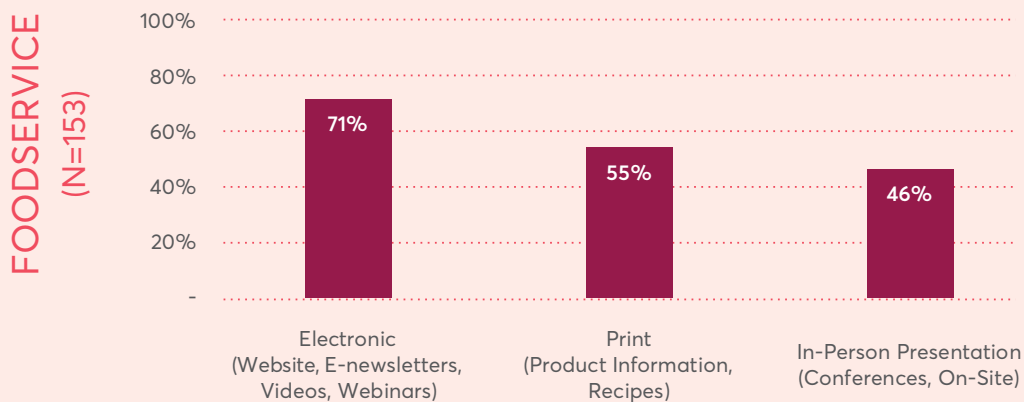
Among Previous, Current or Considering Use of Red Raspberries



Menu Ideas or Recipes and Health Benefit Research generate the greatest interest among Foodservice Operators.

## MOST USEFUL FORMATS FOR PROCESSED FROZEN RED RASPBERRIES INFORMATION

Among Previous, Current or Considering Use of Red Raspberries





## OUTCOME-BASED ASSESSMENT: MARKETING COMMUNICATIONS

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### FY 2016 highlights

- **Influencer partnerships:** Secured five Registered Dietitian Nutritionists as ambassadors for the Council. These brand spokespeople were fully trained to advocate for raspberry consumption in media interviews.
- **Marketing library:** Doubled down on asset creation by adding a slew of communication assets to the Council's marketing and promotions portfolio, including: a buyer's guide for trade audiences; a flavor pairing guide for trade audiences; and a culinary demonstration guide. The Council's flavor pairing guide emphasizes recipe concepts that utilize bold flavors, such as chipotle, kung pao and tabbouleh. The concepts were brought to life by the Council's in-house recipe development team, which developed recipes for the foodservice and food manufacturing audiences. Three new fact sheets were designed to communicate specific health attributes to health professionals: one on nutrition, one on cardiovascular health and one on sports nutrition.
- **NYC Food Editor Test Kitchen Event:** Held an educational event in partnership with Pinterest at the Meredith Publishing Test Kitchen in New York City. Editors and recipe developers for Family Circle, Every Day with Rachel Ray, SHAPE, Parents, Parents Latino, and Better Homes and Gardens attended the event and received frozen raspberry samples, a flavor pairing guide and recipe concepts for ideation.
- **Trade outreach:** The Council conducted direct outreach to educate key trade contacts on use potential with raspberries. This outreach included ongoing correspondence and information sharing with Compass Group, Sysco, Culvers, IHOP and Dairy Queen, which resulted in sampling and concept testing of potential new menu items incorporating red raspberries as ingredients.
- **R&D workshop:** Co-sponsored an invitation-only product development workshop with the Oregon Blackberry and Raspberry Commission (ORBC) designed to reach foodservice and food manufacturing influencers and decision makers. Growers and industry members attended this event and attendees participated in hands-on ideation with all processed raspberry formats.
- **USDA database integration:** Funded the USDA's efforts to integrate raspberries' nutritional analysis into their database after the Council discovered the USDA Nutritional Database did not include frozen raspberries, posing a challenge for the development of nutritional messages and data analysis for foodservice and food manufacturing. This initiative developed a complete nutrition profile for frozen, pureed (sieved and seedless), and juice concentrate.



## OUTCOME-BASED ASSESSMENT: RESULTS AND NST ASSESSMENT

### Results

- More than 530 million media impressions reaching consumer and trade audiences
- Doubled website traffic from FY 2014 to FY 2016, now reaching nearly 10,000 visitors annually
- Skyrocketed social media engagement, growing the online following from 1,400 in FY 2014 to more than 33,000 in FY 2016 and securing 2.1 million impressions
- Developed close relationships with multiple registered dietitian influencers championing raspberry messages to wider networks
- More than doubled the volume of industry newsletter subscribers
- Secured more than 821,000 views of Council videos, including the influential harvest videos

### Overall Assessment

The National Processed Raspberry Council took a strategic approach to building a multifaceted communication program that would generate coverage of the Council, buzz around frozen raspberries and relationships with influencers, including health professionals, consumers and industry members.

An influencer-based approach to consumer marketing and promotion was a wise choice. A modest promotion program such as this would find it impossible to connect with a significant number of consumers on its own. Engaging registered dietitians and nutritionists – commonly viewed as leaders in food and nutrition guidance – and influential members of the media enabled the Council to have a greater impact. In addition to seeking food advice from friends and family, consumers have historically viewed nutrition professionals such as registered dietitians as trustworthy guides. Increasingly, dietitians and nutritionists also maintain an active social media presence, thus giving further reach to messages about the health benefits of raspberries.

The Council's marketing efforts were rooted in research and designed to build off the marketing infrastructure inherited from the Washington Red Raspberry Commission. The research allowed the Council to get to know its audiences, and craft communication strategies and programs that would prove efficacious over the long run, as demonstrated by the several hundred million impressions secured through marketing efforts, and the increase in website traffic and digital engagement through social media channels.

By utilizing an interactive, information-rich website and social media, the Council properly addresses societal trends that tell us consumers are increasingly turning to online sources for information about food choices, where food comes from and who produces our food. The Council adhered to best practices of proactively monitoring food conversations online and scheduling content to keep social media profiles fresh. Recipe demonstrations and farmer stories highlight a wholesome industry image throughout Facebook, Twitter, Pinterest, Instagram and YouTube.

Additionally, the Council took an informed and integrated approach to media relations, reaching consumers through mass communication channels, and foodservice and food



## OUTCOME-BASED ASSESSMENT: RESULTS AND NST ASSESSMENT

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ingredient manufacturers through trade publications. By securing both paid and earned placements in national and niche media outlets, a large, diverse audience was reached with limited funds.

The creation of a harvest video exemplifies industry best practices with visuals and storytelling to capture audience attention, increase awareness and drive purchases. By focusing on sustainability and technology use in the field, the Council ensured that the processed raspberry industry would be positively positioned as a high-quality crop produced in alignment with consumer expectations for sustainable growing practices. Featuring farm families connects with values-driven consumers and helps them feel good about who is growing their food. Additional marketing materials reflect this same sentiment, helping to positively position raspberries as a desirable food choice.

Mintel research of the foodservice sector provided invaluable insights that informed the Council's outreach in these evaluated years and will continue to do so well into the future. By noting specific usage opportunities, the Council created persuasive recipes and flavor pairing guides that encourage ideation and drive product integration at foodservice. Bold flavors and savory applications help move raspberries beyond the dessert plate and breakfast bar.

Participating in events such as the Food and Nutrition Conference and Exposition is a must for any agri-food organization hoping to create a baseline of awareness of a product's nutrition attributes. The Council's choice to also host special events such as the harvest tours and NYC Food Editor Test Kitchen demonstrates an innovative approach to getting other influential audiences, such as news editors, hands-on with frozen raspberries, experiencing their taste and learning about nutritional attributes of the product.

Overall, marketing and promotions activities carried out by the National Processed Raspberry Council in fiscal years 2014-2016 reflect industry best practices and superior knowledge of how to utilize limited funds to connect with a wide array of influential audiences, improve consumer attitudes toward processed raspberries, and ultimately drive product adoption at home and at foodservice.



## Qualitative Assessment Using Food Foresight Food and Agricultural Industry Trends: 2014-2016



## FOOD FORESIGHT TREND 1: CONSUMER ENGAGEMENT WITH FOOD DRIVING MORE PUBLIC SCRUTINY OF 'BIG AG'

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### Trend Overview:

- Consumer interest in food and agriculture is at an all-time high, with Americans fascinated with all things foodie. Consumers, particularly younger generations, crave authentic food experiences and connections to the farm.
- At the same time, trust in traditional institutions — businesses, government, academia and even NGOs — is dwindling. Agriculture is no exception and is increasingly being eyed critically, particularly on issues related to environmental and social justice, food security, safety of GMOs and whether or not foods are grown locally.
- Capitalism with a conscience is a rallying cry for millennials. They are broadly convinced that doing the right thing isn't just vogue, but mandatory.
- Consumers are cherry picking the issues they care about and are adding them to traditional criteria used to make food choices – taste, price, convenience, etc.
- Consumer/marketplace demands may emerge as the gatekeeper of the future. At the same time, a "smarter food system" that uses smart, connected devices, big data and the wide-spread availability of the internet can benefit both the marketplace and producers. The marketplace benefits in terms of environmental stewardship and sustainability, while agriculture benefits from competitive differentiation (for those that rise above the minimum standards), efficiencies and profitability.
- Consumers hold the power of choice and will seek products and services that meet their needs, preferences and values.

### How the Council Stacks Up:

While the Council and the industry behind it is subject to scrutiny like other foods, it has not been specifically targeted on challenges related to trust and values. It did, however, proactively think through how it may respond to certain societal issues and challenges (such as questions about sustainability or labor practices) as part of its crisis planning, which is an important move. The Council is also proactively addressing sustainability concerns in its harvest videos, social media and other communications, which are also emphasizing the authentic people behind the raspberry industry.

### Opportunities for the Future:

While the Council conducted an Attitudes & Usage study of its target audiences, it did not dig into the social issues and concerns that target audiences may have. The Council would benefit from further review of such issues. On the matter of sustainability, the Council would benefit from getting a better picture of the sustainability metrics of its membership on issues such as water, labor, environmental stewardship and more. The first step is to gather data and set benchmarks to ultimately set goals for improvement.

In addition, the Council would benefit for ongoing commitment to the following principles:

- Act in a manner consistent with the values and interests of stakeholders.
- Focus on continuous improvement strategies.
- Listen to and respect consumer beliefs and concerns.
- Share agriculture's challenges and progress without being accusatory or defensive.
- Operate with transparency, sharing information that is truthful, objective, reliable and complete.
- Share what is not possible and why.



## FOOD FORESIGHT TREND 2: PERSONALIZED NUTRITION ON THE HORIZON, AS KNOWLEDGE OF THE IMPACTS OF FOOD ON HEALTH EXPAND DRAMATICALLY

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### Trend Overview

- Driven by decreased costs and increased prevalence of genetic testing and digital health tools, and mounting scientific research on the behavioral and genetic drivers of disease, there is now a greater understanding of health and wellness and our ability to impact both through food and lifestyle choices.
- At the same time, rising health care costs are driving a shift in health care priorities from disease treatment to disease prevention and optimal health. Such a shift makes individual responsibility more important than ever, and nutrition and physical activity increasingly important.
- Research into the gut microbiome is growing, as scientists uncover the link between gut health and overall health.
- Food science related research is increasingly providing data that demonstrates specific health benefits of individual foods. Layer on personalized nutrition (which uses genetics and individual health data to make food recommendations) and it is clear that “one size fits all” approaches are dwindling in relevancy. Healthy eating messages will be more complex than “eat more fruits and vegetables.”
- Food and health care will further entwine as the medical community, food manufacturers and the public become more aware of the effects of genomics, the gut microbiome and food on health.
- A greater understanding of the positive health benefits of certain foods for certain population groups will allow opportunity for the agri-food industry to tout those benefits and their potential impact on health and wellness.

### How the Council Stacks Up:

The Council is doing a good job of building off this trend by continuously expanding research regarding the nutrient profiles of its products with the goal of understanding how they fit in with today's health environment. Specifically, it is funding studies that are highly relevant to many of today's common health concerns, such as diabetes, heart health and chronic inflammation with a focus on the role that frozen and processed raspberries may play in impacting these areas. In addition, by funding studies focused on the gut microbiome, the Council is investigating what many believe to be one of the most important areas of health research: the gut. What's more, the Council is using nutrition research as the basis for communication efforts, aligning with consumer interest in proactive health promotion. By educating, communicating and building trust among influential stakeholders who lead public health discussions, the Council is extending the reach and impact of its investment in nutrition research.

### Opportunities for the Future:

The Council should continue its efforts on furthering understanding of the impact of raspberries on health. Research priorities should be subject to regular review to identify new areas of emerging research opportunity, and the impact of raspberries in a world of personalized nutrition. Forward looking organizations are evaluating the effect of the interplay between genetics and particular foods; the Council would be wise to be mindful of this area of scientific research.



## FOOD FORESIGHT TREND 3: FOOD AND HEALTH INFORMATION IS INCREASINGLY SOCIALIZED

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### Trend Overview:

- Food and health information is increasingly socialized, and social and digital media are replacing mom as the “go to culinary source” to learn about food and share food experiences. Facebook, Instagram, Pinterest, Twitter, blogs and mobile applications are just a few such platforms.
- Food manufacturers and growers can now communicate direct to consumers using a variety of online tools. Savvy companies are leveraging social media to connect not only online, but also to drive in-store purchases with everything from digital coupons to carefully crafted promotions.
- With the socialization of information, consumers are struggling to find truth in a post-truth world. Research shows people tend to consume information that aligns with their worldview.
- Experts — including cognitive scientists, behavioral economics and psychologists — believe that storytelling may be more compelling than logic in creating engagement.
- As people continue to self-select news and information that aligns with their worldview, sharing common values and stories are powerful tools for eliciting support.
- Articulating a purpose — or end benefit to people or society at large — is also a way to connect with consumers. Purpose-driven organizations tend to be more financially successful than non purpose-driven ones.

### How the Council Stacks Up:

Building on this trend, the Council has gone to where its audiences are: online and in social media. Specifically, it has used Facebook, Twitter, Pinterest, Instagram and YouTube platforms to connect and to disseminate relevant content in relevant mediums. The Council utilizes social listening software for all social media platforms, enabling the Council to monitor for social media activity around specific key words, phrases, and influencers related to various areas of interest (including issues and trends) for the industry.

In addition, it is using storytelling as a powerful tool to connect with audiences and communicate in way that aligns not just with facts, but with personal values. Examples of this are the Harvest Videos, which showcase family traditions, sustainable agricultural practices and the people behind the industry.

### Opportunities for the Future:

Moving forward, The Council would benefit from increased use of storytelling as a tool and consistent communication to advance understanding of its purpose. In addition, developing a clear and compelling messaging strategy (built off purpose and that aligns with shared values of its audiences) will be important.

The organization should also continuously monitor the world of socialized information to see what is being said about the Real Red Raspberries brand and category, and engage by offering valuable content that meets the needs and preferences of the Council's audience.





## FOOD FORESIGHT TREND 4: SCIENCE IS VULNERABLE TO ISSUES OF PUBLIC TRUST

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### Trend Overview:

- While science is advancing exponentially and there is a greater understanding of foods' impacts on health, the institution of science itself is receiving push back and is the subject of added scrutiny. Factors contributing to the trend:
  - Controversial issues pitting science against science
  - Flaws in the peer review model
  - Diminishing funds for public research
  - Privatization of science for competitive advantage
  - Scrutiny of industry-funded research, which could threaten license to operate
- Industry funded or supported research — and the methodology behind it — will continue to be questioned and scrutinized, with results touted by industry facing a careful eye from consumers and public policy makers alike.
- Science will be pressured to replicate research to add to its credibility before it is widely implemented. Scientists will be called upon to make both raw data and negative data available for examination.
- Science-based communications will remain challenging as consumers continue to seek perspectives that align with personal values, sometimes at the expense of facts.

### How the Council Stacks Up:

The Council has prioritized only supporting credible research that is committed to the highest standards of quality and scientific integrity. In order to do this, it first gathered input on research focus areas via the Raspberry Roundtable, allowing third party input into the areas of research to pursue. The Council follows a stringent process when determining what research projects should be funded. First, requests for proposals (RFPs) are sent only to scientists who have come recommended by their peers and who are believed to be leaders in their fields and committed to sound scientific principles. When research proposals are received, they are reviewed by multiple parties, including a scientific advisory consultant. The consultant's role is to ensure the credibility and integrity of the research studies funded. All proposals received by the Council are also associated with academic institutions that provide yet another level of vetting prior to proposals being submitted to the Council.

### Opportunities for the Future:

While the Council has demonstrated a commitment to supporting scientific integrity, moving forward the organization would benefit by developing specific (and published) criteria that it will use for determining which projects to fund along with standards for disclosure and sharing of research results. The Council should also require financial connections to research be disclosed.



## FOOD FORESIGHT TREND 5: FOODSERVICE OPERATORS LOOK TO ADD MORE PRODUCE AND BOLD FLAVOR TO MENUS

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### Trend Overview:

- Countries across the globe, including the United States, United Kingdom, Australia and Germany, are seeing increased interest in veganism, vegetarianism and flexitarian diets. Even those who choose to consume animal protein are often aiming to incorporate more produce into their eating patterns. This plant-based credo is fueling a growth in new produce offerings at foodservice.
- Today's consumers, especially Millennials, are mindful about what they put into their bodies and increasingly eschew food with hard-to-understand labels for those with clean, wholesome ingredients.
- Restaurant chains are looking for healthful offerings, including ways to add more produce to menus while maintaining flavor, lowering sodium and improving carbohydrate quality.
- Plant-forward dishes are springing up from QSR to fine dining. For example, institutional foodservice, including school cafeterias, now often feature Meatless Mondays and McDonald's offers seasonal fruit in Happy Meals.
- Meanwhile, the classical American palate has evolved. Diners crave bold flavors and world cuisines, thanks in no small part to the ethnic diversity of younger generations.
- Demographic shifts, changes in appetite and health-focused eating creates ripe opportunity for produce companies who can innovate product offerings that meet the nutrition, taste and convenience demands of foodservice operators.

### How the Council Stacks Up:

Recognizing the interest of plant-based foods in foodservice and in food manufacturing, the Council has put forth a strong effort toward increasing consumption of frozen and processed raspberries in these areas. To fuel these efforts, FY 2015 research established baseline usage, attitudes and awareness among food manufacturers and foodservice professionals, specifically those responsible for menu planning. The Council then used this information to fuel subsequent direct outreach including development of recipe usage ideas and flavor pairing guides. The Council has also fueled recipe innovation with events like the NYC Food Editor Test Kitchen Event and Product Development Workshop with the Oregon Blackberry and Raspberry Commission designed to influence recipe developers, and food manufacturing influencers and decision makers. Hands-on ideation sessions with processed raspberries have been held with chefs representing all foodservice segments.

In outreach to foodservice and food manufacturers, the Council focused not only on product uses but on health benefits of frozen and processed raspberries. In fact, the Council has targeted foodservice distributors and operators (Compass Group, Sysco, Culvers, IHOP and Dairy Queen). Emphasis was placed on those that the Council knows are prioritizing healthy menu development and that are trying to add more fruits and vegetables to their menus. Tactics include an annual Harvest Tour, an R&D workshop, attendance and participation in conferences attended by these outlets, invitation-only events, and direct outreach. It also works with nutrition professionals who are associated with decision making at foodservice operators such as Applebee's and Panera.

The Council's Flavor Pairing Guide emphasize recipe concepts that utilize bold flavors, such as chipotle, kung pao, pico de gallo, charcuterie, tabbouleh and tiramisu. The concepts are utilized by the Council's in-house recipe development team, which develops recipes for



## FOOD FORESIGHT TREND 5: FOODSERVICE OPERATORS LOOK TO ADD MORE PRODUCE AND BOLD FLAVOR TO MENUS

the foodservice and food manufacturing audience, in marketing materials, trade media relations, events and to encourage ideation for menu development. Understanding many foodservice and food manufacturers are increasingly interested in eliminating food waste, the Council is prioritizing this in its messaging strategy.

### Opportunities for the Future:

Continue to look for ways to increase product usage at foodservice and among food manufacturers. As part of this effort, continue to explore how produce can serve as a substitute for less healthful ingredients. Continued exploration on how raspberries can complement bold, world flavors is also of benefit and is in alignment with consumer desires for fresh flavor offerings.