

AUTHORIZATION REQUEST FOR FY 2019

CBB Budget Category: **Research**

Name of Contractor: **National Cattlemen's Beef Association**

Name of Organization Subcontracting:

Start Date: **10/1/2018**

End Date: **9/30/2021**

AR OVERVIEW

AR Description:

Consumers' expectations are changing. They no longer want just safe, healthy, affordable food – they want food that tastes great, helps fuel their day and that they can feel good about. At the same time, consumers have access to more protein options than ever before. From traditional proteins to alternative proteins that are hitting the market, consumers are bombarded by a variety of food choices each day. Now, more than ever before, the checkoff needs to proactively position beef as the number one protein or risk losing share of stomach to another protein. To accomplish this, we will continue building on the successful strategy established in FY2018.

All of the tactics in this authorization request work towards two common goals:

- 1) Positioning beef as the number one protein. Benchmarked at 51% of consumers in September 2017.
- 2) Track brand awareness of the checkoff's iconic brand, *Beef. It's What's For Dinner*. Aided awareness benchmarked at 54% of consumers in September 2017.

NCBA believes that the way we do this is by focusing all programming and messaging around beef's unique and core attributes:

- People – capitalizing on the amazing Americana and stories of people who raise beef today
- Protein – showcase the powerhouse of nutrients, including protein, that beef provides
- Pleasure – remind people of the unbeatable pleasure that beef brings to meals

In FY2019, all of NCBA's programming efforts will focus on creating a surround-sound communications approach to reaching consumers – targeting the older millennial parent as the bullseye – through a series of campaigns focused on people, protein and

pleasure. These campaigns will run throughout the fiscal year and allow the *Beef. It's What's For Dinner.* brand to focus on beef's core strengths, while also being nimble enough to talk about different aspects of beef during various moments in time.

As a result, all tactics in this AR contribute expertise to other checkoff programs, state partners and/or global industry influencers/stakeholders in order to position beef as the top protein. In particular, these tactics provide ongoing counsel and support for the state national beef council partnership to ensure synergy across programs at the national and state level. Given this expertise, attending and traveling to/from key influencer/stakeholder/partner meetings may be required to provide or gain more strategic guidance, training, briefings and/or education in addition to disseminating knowledge and funds in this AR may be used to implement current and previously funded ARs. To accomplish this, it may be necessary for the checkoff to fund international travel to or from the U.S. Also note that legal counsel may be sought for routine, day-to-day content development to ensure compliance with federal rules or regulations.

Total Cost of This AR:

Source of Funding	Direct Costs	Implementation	Total
CBB/BPOC Funding Request:	\$4,477,900	\$3,972,100	\$8,450,000
Federation of SBCs Funding Request: <i>(Informational Only)</i>	\$0	\$0	\$0
Other Funding Source(s): <i>(Informational Only)</i>	\$0	\$0	\$0
Total Cost	\$4,477,900	\$3,972,100	\$8,450,000

Long Range Plan Core Strategies Addressed by this AR *(Check all that apply)*

Grow Beef Exports	Consumer Trust	Protect & Enhance	Beef's Value Proposition
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Digital properties and target audience(s) addressed by this AR:

The following digital platforms and targets are addressed through this authorization request:

All Audiences – Consumer, Influencer, Supply Chain, Producer, State Partner Staff:

- BeefItsWhatsForDinner.com
- @Beef Twitter handle
- BeefItsWhatsForDinner Instagram account

- *Beef. It's What's For Dinner.* YouTube channel
- *Beef. It's What's For Dinner.* Pinterest page
- Beef So Simple

Nutrition Influencers:

- BeefNutrition.org
- BeefResearch.org
- BeefFacts YouTube channel
- BeefFacts Instagram account

Supply Chain Influencers:

- BeefFoodservice.com
- BeefRetail.org
- *Beef. It's What's For Dinner.* LinkedIn page
- Beef News Now
- Beef.widencollective.com

Other Influencers:

- BeefResearch.org
- @BeefFacts Twitter handle
- BeefFacts Instagram account

State Partner and Checkoff Payer target audiences:

- BeefResearch.org
- Extranet for state partners
- Team Beef Facebook page
- Masters of Beef Advocacy Facebook page
- Beef.widencollective.com

PROGRAM INFORMATION FOR THIS AR

Tactic A

Tactic Name: Safety Research and Scientific Affairs

Tactic Description:

NCBA, on behalf of the beef checkoff, builds the science-based evidence through research to inform beef safety decisions throughout the supply chain. Program results also inform communications about the industry's commitment to ensuring the safety of beef.

Results generated through this program are targeted at the scientific community including academia, beef safety decision makers throughout the industry (feedlot operators, packers, processors, retail, foodservice) and regulatory sectors as well as state beef councils and other checkoff program areas that communicate or manage beef safety issues (pre- and post-harvest).

Over time, this program has evolved from a single pathogen focus (*E. coli*) to address several potentially harmful bacterial, chemical or physical threats to beef safety. Today, consumers expect beef to be safe from pathogens and other safety threats, but also that the beef industry takes steps to understand if and/or how antibiotic use impacts the development of antimicrobial resistance and if needed, take action to reduce the potential risk to human health. Research in this program has been used to respond to inquiries from the industry, media, regulatory and other influencers about industry's commitment and progress toward addressing these consumer/influencer concerns.

Safety research projects will be funded to understand the safety threats by known pathogens or antimicrobial resistance (use and resistance development/prevention, risk of human health impact, or the impact of alternatives to today's antimicrobials on resistance). Research outcomes will be shared with advisory groups developing safety guidance, the scientific and regulatory communities in forums/symposia (such as the Beef Industry Safety Summit and other scientific forums), through written materials (manuscripts, fact sheets or literature reviews), visual tools (like web content) or in-person briefings. Strategic planning sessions will be continued to track needs for beef safety research.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Conduct a minimum of two original scientific research projects focused on pre-harvest challenges to beef safety. Outcomes will relate to pathogens, antimicrobial use and resistance, mechanisms/formation and transfer of resistance genes or microorganisms to humans or the environment, or risk assessment information for impacting human health.
- Develop a minimum of 8 tools (web content, reviews, fact sheets, videos, etc.) that share research results or summarize research to provide information for tough questions by consumers and/or influencers about the safety of beef today.
- Showcase safety research program content through two avenues including the Beef Industry Safety Summit, scientific conferences, peer review articles, and forums hosted by other entities. The goal is to influence industry adoption of new scientific evidence or assure stakeholders understand the industry's commitment to improving beef safety.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
---------------------	---------------------	------------------------------------	--------------------------

- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input checked="" type="checkbox"/> Ensure beef safety <input checked="" type="checkbox"/> Protect beef's image <input type="checkbox"/> Engage beef advocates | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef's inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input type="checkbox"/> Defend beef's product identity | <ul style="list-style-type: none"> <input type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input type="checkbox"/> Research & communicate beef's nutritional benefits <input type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency |
|---|---|--|--|

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic B

Tactic Name: Nutrition Research and Scientific Affairs

Tactic Description:

NCBA, on behalf of the beef checkoff, leads research on beef's role in a healthy diet and shares it with the scientific community. This work is used to ensure beef nutrition communications are based in sound science and also becomes part of the evidence base accessed for dietary recommendations. As the only beef centric U.S. based nutrition research initiative on understanding beef's positive role in health, this program uniquely contributes to the "body of science" needed to promote, protect and defend beef's role in health.

This program is targeted to the scientific community including those in academia, government and health organizations (such as American Heart Association), scientific associations (American Society for Nutrition and Institute of Food Technologists), other checkoff programs, state beef council partners, and industry (corporate scientists in food and/or health and wellness companies).

Since the 1920's, beef checkoff nutrition research has contributed important discoveries about beef's role in health. Recently, this program has demonstrated beef's positive role in healthy diets across the lifespan, such as its importance for growth in the early years

and its role in preserving muscles through aging. Checkoff research also has been used to effectively refute hypothesis about a proposed relationship between meat and cancer.

Nutrition research will be funded on healthy diets with beef for cardio-metabolic health and physical performance, including strength. Emerging or hot scientific topics such as plant-based diets, cancer, and sustainable nutrition will be monitored through research and/or scientific communications. Research findings will be shared with the scientific community, including advisory groups developing nutrition guidance, in scientific forums (symposia), written materials (public comments, manuscripts, fact sheets) visual tools (infographics, video, web content) and in-person briefings. Strategic planning sessions will be continued to track needs for beef human nutrition research.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Conduct a minimum of two original human nutrition research studies on healthy diets, where beef is used as the primary source of dietary protein.
- Develop and submit for publication at least one comprehensive scientific paper on beef’s role in health.
- Maintain engagement at 45% in 2018 of the top 100 Nutrition Science Influencers (as identified by historical data monitoring).

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef’s Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input checked="" type="checkbox"/> Protect beef’s image <input checked="" type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input checked="" type="checkbox"/> Ensure beef’s inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input checked="" type="checkbox"/> Defend beef’s product identity	<input type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input checked="" type="checkbox"/> Research & communicate beef’s nutritional benefits <input checked="" type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic C

Tactic Name: Product Quality Research and Technical Expertise

Tactic Description:

NCBA, on behalf of the beef checkoff, leads research focused on improving beef's unique taste attributes and disseminates this research to industry for implementation. As the primary product quality research focused initiative in the U.S., this program uniquely generates scientific research to reduce product inconsistencies and improve eating satisfaction and consumer taste perceptions.

This program targets research results and insights to multiple audiences including academic scientists and scientific organizations (i.e., the American Meat Science Association), and technical experts or industry scientists at supply chain partners such as packers, processors, foodservice and retail. Also targeted are other checkoff programs, state beef council partners, and allied industry stakeholders and influencers (i.e., USMEF, USDA AMS, etc.).

This tactic has delivered a significant volume of peer-reviewed meat science research to document how taste develops in beef products and demonstrate methods to improve consistency of taste to reduce product outliers resulting in fewer product failures, greater consumer satisfaction and more repeat purchases. Examples of highly-visible research completed by this program include the National Beef Tenderness Survey, development of a beef flavor lexicon to describe unique flavor attributes, and muscle profiling research. Recent research has documented flavor notes that are critical to consumer satisfaction, along with the chemical compounds innate to beef that deliver these positive flavor notes.

Product quality research projects will be funded at universities and scientific institutions to improve beef's quality and taste by addressing the specific attributes of beef flavor, tenderness and juiciness following an industry expert-established product quality research roadmap. More specifically, this will include scientific evaluation of pre- and post-harvest factors (i.e., long aging, increasing carcass weight trends) that impact these three beef quality attributes. Industry partners will assist in evaluation of research project ideas solicited to address these topics. Research findings will be shared in public conferences (i.e., the Reciprocal Meats Conference), written materials (manuscripts, fact sheets, research briefs), visual tools (like web content) or in-person briefings. Strategic planning sessions will be continued to track needs for beef product quality research. Additionally, program technical expertise will continue to ensure checkoff programs and external partners have a key point of contact for knowledge on beef products, strategic insight on cut utilization, product inquiry responses, etc.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Conduct a minimum of four original scientific research projects focused on improving product quality and taste consistency. Outcomes will relate to achieving better understanding of beef flavor, tenderness and juiciness science for the development of applicable solutions to reduce beef product inconsistencies.
- Develop a minimum of 8 tools (web content, reviews, fact sheets, videos, etc.) that share research results or summarize research to provide information for questions by industry, consumers and/or influencers about beef’s quality and taste consistency.
- Showcase product quality research program content through two avenues including scientific conferences, peer review articles, and the www.beefresearch.org website. The goal is to encourage industry adoption of new scientific evidence and continue to demonstrate the industry’s commitment to improving beef product quality and taste.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef’s Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input type="checkbox"/> Protect beef’s image <input type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef’s inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input checked="" type="checkbox"/> Defend beef’s product identity	<input checked="" type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input type="checkbox"/> Research & communicate beef’s nutritional benefits <input type="checkbox"/> Connect & comm. with consumers <input checked="" type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic D

Tactic Name: Culinary Research and Technical Expertise

Tactic Description:

NCBA, on behalf of the beef checkoff, provides inspiration for consumers to eat beef more often through recipes, images and other content leveraged through other tactics, partners and state beef council programs. Today’s consumers want to provide meals to their families and friends that capitalize on taste while balancing nutrition and emerging food trends through modern and classic cooking methods to break down perceived barriers to beef’s ease and versatility.

Culinary develops concepts that ultimately target consumers through various audiences (media, influencers, foodservice operators, supermarket foodservice, etc.) and mediums (websites, media, etc.).

Historically, the program has provided beef recipes/recipe photography to be used on BIWFD.com and checkoff social properties and has responded to over 500 requests for recipes/photography annually for food media, industry partners and state beef council program needs. Additionally, culinary expertise and support has been utilized to execute other checkoff programs including immersion experiences with nutrition and health influencers, videos for BIWFD.com and state-sponsored programs with a culinary focus.

In 2019, this program will focus on developing culinary resources, including recipes and photography, and will be a technical resource for “how to” prepare beef both using traditional methods and on-trend applications. These resources will be developed and posted to on-line media platforms and will be managed in other ARs and tactics. Additionally, culinary support will be provided for both national and state programs where cooking with beef is a way to connect with a consumer or influencer audiences.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

-
- Provide culinary expertise to other national or state partner programs that showcase beef’s nutrition, innovation, value, and/or ease of preparation through 10 in-person (demonstrations, panel speaker, etc.) or digital engagements.
- Develop 10 new culinary content pieces (recipe testing, photography or other assets) that serves as inspiration for consumers, influencers or the supply chain to choose beef.
- Conduct quarterly trend analyses on consumer cooking trends and opportunities for beef.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef’s Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access	<input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices	<input type="checkbox"/> Ensure beef safety <input type="checkbox"/> Protect beef’s image <input type="checkbox"/> Engage beef advocates

- Research & innovate new production tech.
- Ensure beef's inclusion in dietary recommendations
- Motivate producers & stakeholders to engage
- Develop crises management plans
- Attract, develop & enable the next generation
- Defend beef's product identity
- Revolutionize beef marketing & merchandising
- Measure & improve sustainability
- Research & communicate beef's nutritional benefits
- Connect & comm. with consumers
- Improve product & production efficiency

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic E

Tactic Name: Sustainability Research and Scientific Affairs

Tactic Description:

NCBA, on behalf of the beef checkoff, provides science-based evidence to inform and engage industry stakeholders on the comprehensive sustainability of beef. Though a complex topic for all audiences, sustainability research continues to provide clarity for audiences by identifying and benchmarking areas for improvement. Research in this program advances life cycle assessment science to measure beef sustainability using a balanced approach that includes social, economic, and environmental indicators.

Multiple audiences are targeted with this program work, including the scientific community, regulatory decision makers, the supply chain sectors (retail, foodservice, packers and the feeding sector), as well as those that influences consumer opinion (health professionals and consumer media).

Previous completion of the foundational U.S. beef sustainability life cycle assessment (LCA) has measured the beef industry's improvements on beef sustainability footprint and provided a benchmark to share with the public. The collection of region specific data continues to reflect the geographical differences in how beef is raised sustainably. Additionally, the science of life cycle assessments has evolved as the field matures and new techniques can more accurately reflect the true sustainability of beef. It is critical for the beef industry to better understand these complex topics to maintain consumer confidence in the way beef is produced today.

Research will be funded to measure improvements in beef sustainability in the three sustainability pillars (social, economic or environmental), including the continued data collection for the sustainability benchmark (new LCA). Scientific outreach will focus on industry adoption of new evidence, measurement parameters, or opportunities that bring these key audiences together. Technical presentations (i.e., industry meetings, briefings, symposia at scientific meetings, etc.) will be identified to share key outcomes. Based on research, tools will continue to be developed that educate consumer and opinion leaders about beef sustainability (such as infographics, opinion editorials, media interviews). The material will be shared through other NCBA checkoff programs (such as Masters of Beef Advocacy, supply chain and key opinion leader audiences, etc.) as well as other contractors to reach a variety of audiences that have questions about beef sustainability. Strategic planning sessions will be continued to track needs and contributions to beef sustainability research.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Conduct a minimum of three original scientific research projects focused on understanding the sustainability of beef systems and the beef value chain.
- Produce a minimum of 10 tools (web content, reviews, fact sheets, videos, etc.) that clarify sustainable beef production today based on both checkoff and non-checkoff funded research findings.
- Inform a minimum of five audiences (i.e., scientific community, consumer or industry influencers, retail or foodservice, etc.) on how beef is sustainably raised today.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input checked="" type="checkbox"/> Protect beef's image <input type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef's inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input checked="" type="checkbox"/> Defend beef's product identity	<input type="checkbox"/> Revolutionize beef marketing & merchandising <input checked="" type="checkbox"/> Measure & improve sustainability <input type="checkbox"/> Research & communicate beef's nutritional benefits <input type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic F

Tactic Name: Channel Intelligence

Tactic Description:

NCBA, on behalf of the beef checkoff, provides insights that enable other checkoff programs to develop and implement more effective demand driving initiatives. Channel intelligence accomplishes this by leveraging a variety of industry data sources and other fact-based information to inform channel and marketing programs about key trends impacting the consumption of beef. It also plays an important role in the development of state, national and industry-wide annual and long-range plans by spotlighting key industry challenges and opportunities.

Decisions that impact the beef industry and ultimately beef consumption, must be fact-based to ensure industry resources are applied as efficiently as possible. While companies and organizations across the industry apply their efforts and resources to drive specific growth and profit, checkoff-funded channel intelligence efforts are focused exclusively on understanding those challenges and opportunities impacting part or all of the beef supply chain. No other entity plays this role as directly as the

beef checkoff. Industry stakeholders, including state and national checkoff programs, rely on this beef checkoff funded intelligence to make smart, strategic and demand-driving decisions.

Specifically, this tactic will build on past industry metrics by continuing to monitor, analyze and disseminate beef retail and foodservice information to industry influencers/stakeholders to enhance performance, inform communications and leverage beef's competitive advantage in the marketplace. The tactic will also provide knowledge on supply dynamics, prices, and pound volumes – by primal, cut, claim (such as production type, ethnic, breed, grade) and foodservice channel insights – along with featuring activity and menu trends, to assist checkoff communication teams, channel members, media, state boards, producers and others in planning and execution to strengthen beef's value. Key data sources include retail volumes, price and featuring activity as well as foodservice menu activity. Insight specific to the competitive protein market (e.g., meat substitutes, chicken, pork, etc.) will also be gathered. All these data and insights will continue to inform checkoff programs including culinary, issues management, communications, and planning to ultimately promote and strengthen beef's value proposition.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Average 16 channel intelligence data touch points per month to broaden the reach of checkoff funded insights and support research and communications programs.
- Complete benchmark assessment of alternative proteins being sold at retail and foodservice.
- Collect, analyze and disseminate retail beef sales data monthly (12 times) to audiences including checkoff program managers, state beef council partners and other industry stakeholders.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input type="checkbox"/> Protect beef's image <input type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef's inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input type="checkbox"/> Defend beef's product identity	<input checked="" type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input type="checkbox"/> Research & communicate beef's nutritional benefits <input checked="" type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic G

Tactic Name: Foundational Market Research

Tactic Description:

NCBA, on behalf of the beef checkoff, provides insights that reach across checkoff demand building and issues management efforts. These studies accomplish this by assessing broad consumer/influencer/stakeholder attitudes, knowledge and needs, and by tracking progress towards key long-term goals. It also plays an important role in the development of state, national and industry-wide annual and long-range planning by spotlighting key industry challenges and opportunities.

Specifically, this tactic will include the tracking of the most important consumer attitudes, usage of and preference for beef. These studies monitor beef's ongoing competitive position in the marketplace related to beef's value proposition, focusing on key attributes that support the beef industry long range plan. This data is analyzed to uncover stronger industry perspective and support program development. Insights are disseminated widely across the industry and data is integrated into internal planning presentations, consumer and influencer PR

programs, state trend overviews and channel member presentations focused on opportunities for increasing demand.

- The new consumer tracker, launched in June 2018, will build on years of insight from past studies (e.g., CBI, CII). The tracker will gather feedback from 1,000 consumers each quarter focusing on beef attitudes and behaviors across a number of attributes including taste, nutrition and production. The tracker is an ongoing survey with data summaries available as needed to support checkoff programs and provide key demand-driving insights.
- In conjunction with the new and enhanced consumer tracker, ongoing segmentation analyses will be conducted to ensure checkoff-funded campaigns are focusing on the right targets with the right message.
- This tactic will also measure the ongoing effectiveness of checkoff-funded campaigns focused on taste, strength and responsibly raised beef. These measures provide a periodic read on how the various campaigns are impacting consumer perceptions of beef. These results serve to inform improvements to campaign planning and execution.
- In addition, consumer satisfaction with steak versus chicken breast will continue to be tracked.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Share consumer tracker updates with all state beef council partners, key beef industry stakeholders and checkoff program managers to help ensure checkoff priority decisions continue to be data-driven. Dissemination will include posting on relevant websites accessible by industry stakeholders and presentation of key findings (webinar or in-person) with at least twenty state beef councils.
- Share consumer segmentation outcome with all state beef council partners and other industry stakeholders.
- Execute periodic campaign measurement surveys to understand how campaigns are performing against goals. While timing is campaign-dependent, the completion of 2-3 measurements is expected and will be shared with industry stakeholders and state beef council partners.

LRP Strategic Initiatives Addressed by this Tactic (Check all that apply)

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input checked="" type="checkbox"/> Protect beef's image <input type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef's inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input type="checkbox"/> Defend beef's product identity	<input checked="" type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input checked="" type="checkbox"/> Research & communicate beef's nutritional benefits <input checked="" type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic (Check all that apply)

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tactic H

Tactic Name: Key Topic Market Research

Tactic Description:

NCBA, on behalf of the beef checkoff, will explore key topic areas, with individual studies digging deep on a specific subject. An example is the research conducted to support the development and execution of the *Beef. It's What's for Dinner.* brand relaunch. Included in this tactic will be studies designed to inform program efforts in the areas of innovation, nutrition, issues management and others that address beef-specific challenges and opportunities. These studies focus primarily on the consumer, but strategic learnings from key influencers are considered and pursued as necessary.

Projects in this tactic planned for FY2019 will specifically support long range plan initiatives and committee priorities and fall into the following categories. Some examples include:

- Nutrition – Checkoff-funded studies in this area will directly support several long-range plan initiatives, including protecting beef's image, communicating beef's nutritional benefits and helping revolutionize the meat shopping experience by

capturing key learnings from consumers and influencers about beef's nutritional benefits.

- Innovation – Checkoff-funded studies in this area will support the development and execution of checkoff funded promotional campaigns and associated innovations. User assessments will continue to determine the impact of current online promotional programs and satisfaction with BeefItsWhatsForDinner.com to support supply chain efforts, understanding new paths to purchase, and evolving purchase behaviors (e.g., meat substitutes).
- Issues/Stewardship – Checkoff-funded studies in this area will directly support several long-range plan initiatives including ensuring beef's safety, protecting beef's image, and connecting & communicating directly with consumers through a variety of testing methodologies. Output will include key learnings about messaging, consumer perceptions of production, and proof points that relate to stewardship topics as well as issues response and preparedness.

Measurable Objectives *(List at least three outcome-based objectives for this tactic):*

- Conduct at least one study that supports campaign development designed to leverage beef's taste advantage (e.g., test messaging, video treatments, etc.). Disseminate insights that support beef demand with checkoff programs and industry stakeholders, including state beef councils.
- Conduct at least one study that supports campaign development designed to inform consumers and/or influencers about beef's nutritional benefits (e.g., test messaging, video treatments, etc.). Disseminate insights that support beef demand with checkoff programs and industry stakeholders, including state beef councils.
- Conduct at least one study that supports campaign development designed to inform consumers and/or influencers about how beef is responsibly raised (e.g., test messaging, video treatments, etc.). Disseminate insights that support beef demand with checkoff programs and industry stakeholders, including state beef councils.

LRP Strategic Initiatives Addressed by this Tactic (Check all that apply)

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
<input type="checkbox"/> Adopt traceability systems <input type="checkbox"/> Increase market access <input type="checkbox"/> Promote unique attributes of U.S. beef	<input type="checkbox"/> Ensure antibiotic stewardship <input type="checkbox"/> Certify & verify production practices <input type="checkbox"/> Ensure beef safety <input checked="" type="checkbox"/> Protect beef's image <input type="checkbox"/> Engage beef advocates	<input type="checkbox"/> Research & innovate new production tech. <input type="checkbox"/> Ensure beef's inclusion in dietary recommendations <input type="checkbox"/> Motivate producers & stakeholders to engage <input type="checkbox"/> Develop crises management plans <input type="checkbox"/> Attract, develop & enable the next generation <input type="checkbox"/> Defend beef's product identity	<input checked="" type="checkbox"/> Revolutionize beef marketing & merchandising <input type="checkbox"/> Measure & improve sustainability <input checked="" type="checkbox"/> Research & communicate beef's nutritional benefits <input checked="" type="checkbox"/> Connect & comm. with consumers <input type="checkbox"/> Improve product & production efficiency

Committee(s) to Score this Tactic (Check all that apply)

Consumer Trust	Export Growth	Innovations	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUPPLEMENTAL INFORMATION FOR THIS AR**1. Will all work detailed in this AR be completed by the end of the fiscal year?**

No

If not, please provide an explanation.

The work of the programs in tactic A, B, C and E will be completed by the end of the AR (September 30, 2021). The plans exceed 12 months due to time needed for a request for proposals (RFP) and/or targeted research planning, project design meetings, industry expert review of proposals and contract negotiation. Project approvals by university campus committees may also be required if live animals will be used in the research (Animal Care & Use Committee) and in case of human subjects, Institutional Review Board reviews. These standard requirements for biological science research take additional time before a project can begin. Therefore, to provide an ample timeline for project work to be completed, additional time is needed (24 - 36 months in total).

Market Research and Intelligence – No, the market research plan extends to December 30, 2020. All work is planned for completion by that time. As in the

past, the additional time is required to execute market research projects with completion anticipated within 15 months. This time is also needed to allow for data analysis and report generation.

2. Please explain changes from FY 2018 approved AR:

The research tactics A, B, C and E build upon research priorities of the previous year as the research roadmaps are for five years, aligning with the current Long-Range Plan. However, the scientific acceptance efforts continue to develop from previous years. The above tactics indicate a continued narrower focus as resources have become more limited. Outreach and education activities continue to be essential to spur implementation/adoption of science and technical knowledge.

Tactic D has a narrower focus of only culinary activity and the work with supply chain partners has been consolidated into the CI tactic for supply chain efforts.

3. List any proposed subcontractor/agencies that will be used to complete the work in this AR.

Various laboratories, universities, health science centers and their affiliated research scientists, independent research companies, government agencies, and other contractors and vendors will be used to complete the research program outlined (tactics A, B, C and E). Subcontractors will be chosen via a request for proposals process and/or through the development of targeted research projects that are based on previous research expertise, budget rational, and industry need and committee priorities.

In tactic D, professional food photographers may be utilized.

IPSOS U.S. Public Affairs, Google Analytics and Toluna have solutions for consumer issues and consumer preference research that provide for speedier results. Work related to consumer tracking (i.e., formerly the Consumer Beef Index and Consumer Image Index) will be conducted by Directions Research. They were assessed and selected after a competitive bid process due to their deeper knowledge of consumer tracking and segmentation analysis. Technomic will continue to provide results from the foodservice volumetric study. They also provide a suite of strategic services and proprietary databases used by channel intelligence to explore and act on a variety of foodservice insights. Freshlook (IRI) and Meat Solutions have built a custom system for analyzing the value of beef sold at retail, starting with scanner data, and reassembling cuts back to beef primals, so that long-term value to producers can be tracked. Other contractors will be selected based on expertise in respective areas (e.g., nutrition) and will be part of the competitive bid process.

4. Will all work with subcontractors be competitively bid?

No

If not, why not?

Various laboratories, universities, health science centers and their affiliated research scientists, independent research companies, government agencies, and other contractors and vendors will be used to complete the research program outlined (tactics A, B, C and E). Subcontractors will be chosen via a Request for Proposals process and/or through the development of targeted research projects that are based on previous research expertise, budget rational, and industry need and committee priorities.

In tactic D, professional food photographers may be utilized.

IPSOS U.S. Public Affairs, Google Analytics and Toluna have solutions for consumer issues and consumer preference research that provide for speedier results. Work related to consumer tracking (i.e., formerly the Consumer Beef Index and Consumer Image Index) will be conducted by Directions Research. They were assessed and selected after a competitive bid process due to their deeper knowledge of consumer tracking and segmentation analysis.

Technomic will continue to provide results from the volumetric study. They also provide a suite of strategic services and proprietary databases used by channel intelligence to explore and act on a variety of foodservice insights. Freshlook (IRI) and Meat Solutions have built a custom system for analyzing the value of beef sold at retail, starting with scanner data, and reassembling cuts back to beef primals, so that long-term value to producers can be tracked. Other contractors will be selected based on expertise in respective areas (e.g., nutrition) and will be part of the competitive bid process.

5. Please list any relationships between this AR and projects previously funded by the Operating Committee:

The programs in tactics A, B, C, D and E builds upon, but does not duplicate work from previous ARs and is leveraged by this, other checkoff programs, key industry stakeholders and the research community.

Some of the research included in this AR is ongoing tracking research that has been funded for a number of years (Foodservice Volumetric, IRI). It is important that the industry stay current on consumer trends and perceptions in order to ensure that the industry is properly responding to changes as they occur.

DETAILED BUDGET SUMMARY:

CBB/BPOC Funding Request:

Committee	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
Safety	A	Safety Research and Scientific Affairs	BPOC	\$ 700,000	\$ 164,900	\$ 864,900
Safety	B	Nutrition Research and Scientific Affairs	BPOC	\$ 1,500,000	\$ 674,600	\$ 2,174,600
Innovation	C	Product Research and Technical Expertise	BPOC	\$ 700,000	\$ 137,300	\$ 837,300
Innovation	D	Culinary	BPOC	\$ 158,500	\$ 1,274,200	\$ 1,432,700
Consumer Trust	E	Sustainability Research and Scientific Affairs	BPOC	\$ 700,000	\$ 388,400	\$ 1,088,400
Innovation	F	Channel Intelligence	BPOC	\$ 295,200	\$ 581,100	\$ 876,300
Innovation	G	Foundational Market Research	BPOC	\$ 86,900	\$ 509,800	\$ 596,700
Innovation	H	Key Topic Market Research	BPOC	\$ 337,300	\$ 241,800	\$ 579,100
AR Totals				\$ 4,477,900	\$ 3,972,100	\$ 8,450,000

Federation of SBCs Funding Request: (Informational Only)

Committee	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
Safety	A	Safety Research and Scientific Affairs	Federation			\$ -
Safety	B	Nutrition Research and Scientific Affairs	Federation			\$ -
Innovation	C	Product Research and Technical Expertise	Federation			\$ -
Innovation	D	Culinary	Federation			\$ -
Consumer Trust	E	Sustainability Research and Scientific Affairs	Federation			\$ -
Innovation	F	Channel Intelligence	Federation			\$ -
Innovation	G	Foundational Market Research	Federation			\$ -
Innovation	H	Key Topic Market Research	Federation			\$ -
AR Totals				\$ -	\$ -	\$ -

Other Funding Source(s): (Informational Only)

Committee	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
Safety	A	Safety Research and Scientific Affairs				\$ -
Safety	B	Nutrition Research and Scientific Affairs				\$ -
Innovation	C	Product Research and Technical Expertise				\$ -
Innovation	D	Culinary				\$ -
Consumer Trust	E	Sustainability Research and Scientific Affairs				\$ -
Innovation	F	Channel Intelligence				\$ -
Innovation	G	Foundational Market Research				\$ -
Innovation	H	Key Topic Market Research				\$ -
AR Totals				\$ -	\$ -	\$ -

Total Cost Summary for All Funding Sources: (Informational only)

Committee	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
Safety	A	Safety Research and Scientific Affairs	All	\$ 700,000	\$ 164,900	\$ 864,900
Safety	B	Nutrition Research and Scientific Affairs	All	\$ 1,500,000	\$ 674,600	\$ 2,174,600
Innovation	C	Product Research and Technical Expertise	All	\$ 700,000	\$ 137,300	\$ 837,300
Innovation	D	Culinary	All	\$ 158,500	\$ 1,274,200	\$ 1,432,700
Consumer Trust	E	Sustainability Research and Scientific Affairs	All	\$ 700,000	\$ 388,400	\$ 1,088,400
Innovation	F	Channel Intelligence	All	\$ 295,200	\$ 581,100	\$ 876,300
Innovation	G	Foundational Market Research	All	\$ 86,900	\$ 509,800	\$ 596,700
Innovation	H	Key Topic Market Research	All	\$ 337,300	\$ 241,800	\$ 579,100
AR Totals				\$ 4,477,900	\$ 3,972,100	\$ 8,450,000

Summary of Prior Year Budget:	FY 2018 Approved Budgets						
	CBB/BPOC	FSBCs	Other Source(s)	Total	Direct Cost	Impl.	Total
AR Total	\$ 8,350,000	\$ 1,467,200	\$ -	\$ 9,817,200	\$ 5,594,600	\$ 4,222,600	\$ 9,817,200

Summary of Prior Year Actual Expenses:	FY 2018 Actual Expenses (through May 30, 2018)						
	CBB/BPOC	FSBCs	Other Source(s)	Total	Direct Cost	Impl.	Total
AR Total	\$ 2,674,960	\$ 499,179		\$ 3,174,139	\$ 833,781	\$ 2,340,359	\$ 3,174,139

Historical Summary of Budgets and Expenses	Total Approved Budgets			Total Actual Expenses		
	FY 2017	FY 2016	FY 2015	FY 2017	FY 2016	FY 2015
AR Total	\$ 10,671,601	\$ 11,537,900	\$ 10,657,400	\$ 7,472,209	\$ 9,572,294	\$ 9,766,702