Request for Proposal – Nutrition Research
FY 2022

Objective

The National Watermelon Promotion Board (NWPB) is inviting investigators to submit proposals for exploratory watermelon research related to investigating the potential human health benefits of watermelon consumption. The NWPB's specific areas of nutrition research interest are outlined below.

About the NWPB

The National Watermelon Promotion Board (NWPB), based in Winter Springs, Florida, was established in 1989 as an agricultural promotion group to promote watermelon in the United States and in various markets abroad. Funded through a self-mandated industry assessment paid by more than 800 watermelon producers, handlers and importers, NWPB mission is to increase consumer demand for watermelon through promotion, research and education programs.

Watermelon packs a nutritious punch, with each serving providing an excellent source of Vitamin C (25% DV), a source of Vitamin B6 (8% DV), and a delicious way to stay hydrated (92% water), with only 80 calories per 2-cup serving. Watermelon consumption per capita in the United States was an estimated 16 pounds in 2020. Watermelon consumption in the United States was approximately 5.3 billion pounds in 2020. The United States exported an additional 359 million pounds of watermelon. For additional information, visit www.watermelon.org.

NWPB Nutrition Research Program

The NWPB believes in the power of nutrition research to educate consumers. The research committee, comprised of members of the watermelon industry, directs and prioritizes the research projects to be conducted on behalf of the NWPB. The NWPB has conducted nutrition research for over 20 years and has invested nearly $1.5 million on this research since 2010. For 2022, the nutrition research request for proposal has been updated to focus our research following a 2021 study, *Watermelon Summary of Research Database, State of the Health Benefits Science*.

NWPB Nutrition Research Areas of Interest

The NWPB is interested in receiving proposals that investigate the potential human health benefits of watermelon consumption. We are specifically interested in human clinical trials using the edible portion (flesh and juice) of watermelon as well as NHANES analysis. Animal or in vitro studies will not be considered. Our specific areas of nutrition and health research interest include:

- **NHANES Analysis:** Proposals for this research should focus on analysis of the most recent NHANES data to determine associations between watermelon consumption and factors related to health (overall diet quality, energy and nutrient intakes, physiological indicators, etc.) for infants through adult age ranges.

- **Cardio metabolic Health:** Investigation of the impact of watermelon consumption on various indices related to cardio metabolic health, including measures of nitric oxide activity including blood/urine nitrate/nitrite levels, arginine/ADME ratios, etc, with FMD and BP measures is of interest in these studies. NWPB is specifically interested in studies that:
    - Assess dose-response activity of watermelon (as typically eaten) on blood lipids in individuals with moderately elevated hyperlipidemia
    - Investigate outcomes of endothelial function (ie., FMD) in individuals with pre-hypertension or metabolic syndrome characterized by elevated lipids and blood pressure
    - Investigate the effects on blood pressure, including a 24-hour ambulatory assessment
    - Investigate the dose response activity of watermelon in individuals at risk for type 2 diabetes (i.e., prediabetes and or insulin resistance)
- **Cognitive Function:** NWPB is interested in investigation of the impact of watermelon consumption on brain health & cognitive function, specifically studies that explore the potential of watermelon on cognitive function in well-designed dose-response human studies to help set direction for future work in this area.
- **Gastrointestinal Health:** NWPB is interested in studies that establish a clear understanding of the relationship between chronic daily consumption of watermelon and changes in the gut microbiome (including phyla, genera, species enrichment /diminishment)
- **Other Areas:** Research investigating the impact of watermelon consumption on emerging areas of interest, such as skin health or cognitive health. Research investigating the impact of watermelon consumption on the health of special populations, such as athletes, children, and older individuals.

Funding Details

- The NWPB will award up to $75,000 per project.
- Per our Bylaws: Any research grants provided to universities or government agencies must be used in total toward the written objective of the grant, and not be used in any percentage or form to cover administrative costs of such university or agency. Dollar for dollar, 100% of the grant must be used for the research that the Board is paying for, to include labor, lab time, equipment, etc. that is agreed upon prior to grant approval.
- Payment schedule will be as follows:
    - 50% at the beginning of the project
    - 50% upon submission of the final report

Methodological Standards
Study design must adhere to current methodological standards, including but not limited to:

- Observational studies using an established prospective cohort or cross-sectional database (e.g., NHANES)
- Randomized Controlled Intervention Trials (RCTs) using parallel or cross-over designs
- Uncontrolled intervention studies, animal studies or *in vitro* studies are not acceptable

Proposal Requirements

- ***Proposal must be received no later than 5:00 p.m. ET on January 21, 2022 to be considered.***
- Proposals should be no longer than 5 pages, not including budget detail and any necessary attachments (CVs, references, etc.).
- All applicants will be informed of their funding status by March 15, 2022.
- Proposals must include the following information and be submitted electronically in a Word document:
    - Project Title
    - Project Duration (include begin and end date)
    - Investigators: Identify principal investigator (person responsible for research and expenditure of funds) as well as additional collaborators. Include affiliations and complete contact information for principal investigator and collaborators.
    - Abstract (maximum 500 words)
    - Study Objectives (maximum 500 words), clearly state the goal(s) and objectives of the project
    - Justification: Include summary of prior work and expertise related to the topic and references cited
    - Approach (Materials and methods): Include detailed description of the intervention for RCTs, dietary assessment methodology (for observational studies), primary and secondary endpoints, inclusion/exclusion criteria, power calculation, statistical methodology
    - Anticipated Limitations
    - Study Timeline (key events and estimated timeline)
    - Proposed Dissemination: Include suggested conferences and/or publications and approximate timing
    - Budget: Include a budget sheet detailing direct costs
    - Curriculum Vitae for all investigators

Proposals and any questions should be directed to (both):

- Mark Arney, Executive Director: marney@watermelon.org
- Rebekah Dossett, Director of Operations & Industry Affairs: rdossett@watermelon.org