Multicomponent Nutrient Bar Promotes Weight Loss and Improves Dyslipidemia and Insulin Resistance

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**Funding source:** CHORI-Ames Foundation

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Mungbean as a Specialty Health Food Crop in Alabama

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**Learning Outcome:** Upon completion, participants will be able to recognize that Sprouted seeds have lower levels of phytic acid and condensed tannins, which are considered as antinutrients.

**Background:** Increasing evidence suggests that plant-derived foods have potential health benefits, and health organizations have recommended their intake to improve health. Sprouting of legumes enhances bioavailability and digestibility of key nutrients.

**Objectives:** To compare seeds and sprouts of five mungbean varieties for their mineral, phytochemical and protein profiles.

**Methods:** Five varieties (Chinese Organic (CH-O), Conventional (CH-2, CH-3), Indian (IN-1), and Tennessee US (TN-1) of sprouted and dry mungbean seeds were examined for mineral, phytochemical and protein profiles. Phytic acid, flavonoid content, and condensed tannins were determined using the spectrophotometry methods. Selected minerals were observed using an inductively coupled plasma Perkin Elmer. Data were calculated using the equation: ppm x # of dilutions x 50 ml/weight (g) of the original sample. Final data was run through a TWO-WAY ANOVA test.

**Results:** Sprouted beans of all varieties contained significantly lower levels of total phytic acid and total phytic acid content than dry seeds <0.05. Flavonoid content ranged from 0.109 (CH-2) to 0.235 mg/g (IN-1), and was similar in dry seed and sprouted seeds with p value <0.05. The sprouts had significantly lower levels of condensed tannin compared to that in dry seeds <0.05. Among minerals, potassium and sodium were similar in sprouted and dry seeds <0.05. The iron level was lower, and manganese and copper were higher in IN-1, CH-2, and CH-3 sprouted seeds compared to dry seeds. Conclusion: Phytochemicals and minerals differed among the mungbean varieties and between dry and sprouted seeds. Sprouts had lower levels of phytic acid and condensed tannins.

**Funding source:** This research was supported by Evan-Allen grant no. ALAX-014-0916/ project accession no. 1009002 from USDA National Institute of Food and Agriculture

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Orange Napkin to Improve Dietary Intake Among Hospitalized Patients

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**Learning Outcome:** Demonstrate the effectiveness of improving meal presentation through the use of an orange napkin to increase meal consumption at a hospital setting

**Background:** Color has been studied as a means through which to enhance the food context. For example, the color of the crockery on which food was served ever, this refers to the color of the food itself rather than orange color as a component of the meal context. Orange is associated with food, warmth and satisfaction. The present study was designed to estimate the effect of orange napkin color on food intake at lunchtime and patient satisfaction with meals.

**Methods:** Randomized clinical trial at Internal Medicine Department E. at Wolfson Medical Center, Israel. Data collection was obtained from medical record and patient food trays were photographed by the investigator. Modified Comstock Plate Waste Scale was used with digitally captured images of plate waste, which were later viewed in the camera viewer screen. Using the Modified Comstock Scale, the rater indicated the proportion of the menu item remaining on the plate hence calculated the amount of food consumed.

**Results:** The orange napkin group consumed 17.6 % more food than the white napkin (control) group. The proportion of total lunch meal consumed was significantly greater in the orange napkin vs white napkin group (p<0.002). The satisfaction score after adjusting for the covariates was higher in the experimental group than in the control group (3.97±0.10 vs 2.46±0.10, p<0.000)

**Conclusion:** The inclusion of an orange napkin can increase dietary intake among hospitalized patients at Internal Medical Departments

**Funding source:** None