

Three types of peanut butter cookies, control, high protein (30% bean protein concentrate substituted for flour) and high fiber (20% bean hulls substituted for flour) prepared at Michigan State University bakery were evaluated for their physical characteristics (Table 1). High protein cookies had the highest moisture content and baking loss, but lowest spread factor. Tenderness of high fiber cookies was shown to be the highest while that of high protein cookies exhibited the lowest tenderness value. These cookies were also evaluated using a seven-point hedonic scale by 300 participants at Focus:HOPE, Detroit, Michigan. These panelists included wide representation of children, teenagers and adults. Black was the predominant race although some whites and other races took part. Panelists' general comments were favorable. Preliminary scanning of the data showed the high fiber cookies to score as high as the control while the high protein cookie scored slightly lower. Even though statistical differences occurred, all cookies were rated acceptable by these panelists.

PHYSICAL CHARACTERISTICS OF PEANUT BUTTER COOKIES					
TREATMENTS	MOISTURE (%)	BAKING LOSS (%)	SPREAD FACTOR (W/T)	TENDERNESS (LB/G)	SENSORY SCORE HIGHEST RATE
CONTROL	5.84	10.73	10.0	25.73	5.9
BEAN HULL (20%)	5.03	10.45	9.6	31.58	5.9
BEAN PROTEIN (30%)	7.04	11.23	9.1	21.62	5.5

n = 3

Table 1

EVALUATION OF SEED TREATMENTS FOR CONTROL OF BACTERIAL BLIGHT OF COWPEA

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ABSTRACT

Methods were developed to evaluate seed treatments for the eradication of *Xanthomonas campestris* pv *vignicola*. Bacteria were isolated from seed by plating out samples from a seed wash onto a selective (CMC) medium. The medium formulation is as follows: KH_2PO_4 , 0.15%; K_2HPO_4 , 0.6%; KCl , 0.02%; MgSO_4 , 0.1%; CaCO_3 , 0.5% of a 10% solution; trace elements, 0.5% of Hoagland's trace element solution; eosin Y, 0.2%; methylene blue, 0.04%; gelatin, 0.1%; agar, 0.3%; carboxymethyl cellulose (CMC), 2.5%; actidione, 0.01%. The CMC and actidione are added after autoclaving by blending at high speed in a hot blender. An approximate 100 fold reduction of bacteria was observed when cupric chloride (0.5%) was applied to dry seeds by means of an organic solvent (acetone). Calcium hypochlorite (HTH) applied as a 3.9% aqueous solution resulted in better control as no bacteria were detected. Prolonged exposure (24 h) to either treatment detrimentally affected germination. Germination was not affected with treatments lasting 0.25 to 1 h.