

HUSK SOFTENING AND KERNEL CHARACTERISTICS  
OF EASTERN BLACK WALNUT (*Juglans nigra* L.) CULTIVARS AT  
SUCCESSIVE HARVEST DATES

Scott A Brawner

Dr. Michele Warmund, Advisor

ABSTRACT

Eastern black walnut (*Juglans nigra* L.) nuts were collected weekly to: 1) identify a method to determine the optimal harvest date; 2) develop a quantifiable color classification for kernels; and 3) quantify the effect of delayed husk removal on kernel color. Husk denting, husk hardness (measured with a durometer), and husk color were evaluated. The durometer was a reliable for determining husk softening. Maximum percent kernel for 'Emma K', 'Sparrow', 'Kwik Krop', and 'Football' was recorded when durometer values were  $\approx$  62, 67, and 71 to 73, respectively. Kernel LCH sum provided a reliable color classification in which light kernels had values  $\geq$  150, medium kernels had LCH sums of 149 to 126, and dark kernels had values  $\leq$  125. When hulling was delayed two weeks in, kernel LCH sums of 'Emma K', 'Kwik Krop', and 'Sparrow' were lower (e.g. darker in color) than when nuts were husked immediately after harvest.