

Black walnut (*Juglans nigra* L.) is one of the most economically precious hardwood species and a high value tree for comestible nut product in the United States. The metabolomics approach provides a simple and cost-effective tool for bioactive emulsion identification. In this study, the kernels of twenty-two black walnut cultivars named for nut product by the University of Missouri Center for Agroforestry (Columbia, MO, USA) were estimated for their antibacterial conditioning using agar-well proximity assay. Although consumption of black walnut has been linked to multiple health-promoting goods (e.g., antioxidant, antimicrobial, anti-inflammatory), the bioactive composites haven't been totally characterized.