

Lacking Culture: Obtaining Fungal DNA Directly from Early Leaf Spot of Peanut

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Passalora arachidicola is a fungal pathogen that causes the ubiquitous disease Early Leaf Spot of peanut (*Arachis hypogaea* L.). Retrieval of important genetic information about this fungus such as fungicide resistance has been hindered by the difficulty involved in its ability to be grown in pure culture. The purpose of this project is to circumvent culturing and attempt to extract quality DNA directly from the fungal-infected leaf spots. We tested three methods of DNA extraction on varying numbers of leaf spots. The data collected suggested that bead-beating and liquid nitrogen grinding was superior to hand grinding in regards to DNA quality and quantity. Additionally, we found that the desired quantity of DNA was not achievable with single lesions; multiple lesions were needed per extraction. Continued refinement of our extraction protocol should lead to valuable insight into the genetic makeup of this detrimental fungus.