Efficacy of Chlorothalonil Alternatives Compared for Disease Control and Yield Response on Peanut

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In 2016 and 2017, chlorothalonil alternatives Elast, Muscle ADV, Mancozeb 80W, Topin 4.5F, and CuproFix Ultra alone or tank-mixed were compared with Echo 720 6F (chlorothalonil) or Echo 720/Fontelis standards for the leaf spot and stem rot control as well as yield response on irrigated Georgia-09B peanut at the Wiregrass Research and Extension Center in Headland, AL. For each study, a randomized complete block with four replications was used. Fertility and weed control were according to ACES recommendations. For 2016, significantly better leaf spot control was noted with Mancozeb+Topsin than Elast/Muscle ADV, CuproFix Ultra+Topsin, and Mancozeb alone season-long with the remaining fungicide programs, including Echo 720 and Echo 720/Fontelis, proving equally effective. While stem rot pressure was low, Echo/Fontelis gave better control than Absolute/Muscle ADV/Echo 720, CuproFix Ultra+Topsin, and Mancozeb+Topsin. Higher yields recorded for Elast/Elast+Custodia were matched by five other fungicide programs but not Elast alone, Mancozeb+Topsin, or CuproFix Ultra+Topsin season-long, along with the Echo/Fontelis standard. In 2017, lower defoliation levels were recorded for CuproFix Ultra+Topsin compared with Elast or Mancozeb alone season-long but not the Echo 720 and Echo 720/Fontelis standards, with the latter program giving better stem rot control than all but four of the alternative fungicide programs. Mancozeb+Topsin/Mancozeb+Muscle and Mancozeb+Topsin, which produced greater yield than Absolute/Muscle ADV/Echo 720 and Elast season-long, yielded similarly to the Echo 720 and Echo 720/Fontelis standards. With some exceptions, chlorothalonil alternatives often gave similar leaf spot control and yield response as the Echo 720 and Echo 720/Fontelis standards.