

1896 The density and time of establishment of glyphosate-resistant Palmer amaranth (*Amaranthus palmeri* S. Wats.) affects cotton yield

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An experiment was conducted in Georgia in 2006 with Palmer amaranth being established at four densities (2, 3, 5, and 10 per 6.1 m of row) plus a weed-free check at four establishment times (3-, 8-, 12-, and 17-lf cotton) representing escapes from herbicide applications made to cotton PRE, at 4-lf, at 8-lf, and at layby, respectively. Establishment at the 3-lf stage of cotton reduced seed cotton yield 164 lbs/A for every Palmer amaranth present within 6.1 m of row. At this establishment time, a density of 1 or 10 Palmer amaranth per 6.1 m of row represented a 7 or 68% reduction in seed cotton yield, respectively. Establishment at the 8-lf stage of cotton reduced seed cotton yield 167 kg/ha for every Palmer amaranth present within 6.1 m of row. At this establishment time, a density of 1 or 10 Palmer amaranth per 6.1 m of row represented a 6 or 60% reduction in seed cotton yield, respectively. Establishment at the 12- or 17-lf stage of cotton did not reduce seed cotton yield.