# SOIL TREATMENTS AGAINST FUSARIUM OXYSPORUM F. SP. VASINFECTUM RACE 4

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## Abstract

Few economically feasible disease management options are available for California cotton producers with fields infested with race 4 of *Fusarium oxysporum* f. sp. *vasinfectum*. For treating soil to reduce inoculum levels, past studies indicate that solarization and fumigation with metam-sodium may be affordable, yet effective solutions. To test their applicability to race 4 in cotton, we compared four soil treatments: a six-week-long summertime solarization, metam-sodium (75 gal/acre), methyl bromide-chloropicrin (50:50, 350 lbs/acre, tarped) and Telone-chloropicrin (40:60, 31.5 gal/acre, tarped). The treatments were applied in plots in a field naturally infested with race 4, using a split-plot design, with soil treatment as the whole plot factor and cotton cultivar as the subplot. Four cultivars representing a range of susceptibilities to race 4 were used to evaluate the treatments. We will present observations from the first season indicating that soil solarization worked as well as more costly, tarped fumigants (methyl bromide-chloropicrin and Telone-chloropicrin) as evidenced by plant survival.