Peanut line selection was based on performance in previous Peanut Variety and Quality Evaluation trials. All varieties received a fungicide seed treatment. Fields were fumigated with Metam or Vapam at 10 gal/acre in mid-April. Peanut were planted at the end of April or in early May, in plots 2 rows by 30 or 40 ft long on 36-in beds in a split-plot experimental design. Plots received either no insecticides applied for thrips control, or a conventional thrips control program with Temik 15G at 7 lb/acre applied in-furrow at planting, followed by one or two broadcast applications of Orthene 97 at 4 oz/acre beginning at the late ground cracking stage. Data included weekly thrips plant injury ratings (on a scale of 0=no injury to 10=dead plants), terminal leaflet thrips counts (based on 10 leaflets/plot with thrips extraction in soapy water), seedling stand counts, incidence of tomato spotted wilt virus (number of plants showing visual disease symptoms) and pod yield. Data were analyzed using ANOVA and LSD statistical procedures. Plant injury rating and thrips counts were analyzed by variety and separated by date, year and insecticide treatment. Yield data were analyzed by variety separated by year and insecticide, and TSWV was analyzed by variety and insecticide. In untreated plots, significant differences were observed in plant injury rating on some varieties for specific dates in 2010 and 2011 but overall there was no significant difference. In treated plots significant differences were detected by variety for specific dates in 2011 and overall but not in 2010. Significant differences were detected for thrips counts in untreated plots on two dates in 2010 with no significant differences in 2011, or by year. Varietal yields were not significantly different in 2010, but were significantly different in treated and untreated plots in 2011. Significant differences in incidences of TSWV were observed in variety on both dates in untreated plots and only on 5Aug in treated plots.