

The efficacy of selected household soaps and oils and commercial insecticides against whiteflies on tomatoes

Knott, R., 1998

[Abstract]

Bemisia tabaci (Gennadius) (The Cotton, Sweet Potato, or Tobacco whitefly) has long been known as a serious pest of a large range of crops worldwide. This *Homopteran* is a vector of the tomato yellow Leaf curl Virus (TYLCV) which can cause up to one hundred percent losses in tomato crops. Its development of resistance has resulted in few effective pesticides being available to farmers at this time. Reports suggest that certain household products, namely, soaps and oils have the potential to reduce whitefly numbers. Consequently, the Ministry of Agriculture has been placing efforts into identifying those which may be suitable for use as pesticides. A study was undertaken to evaluate the effectiveness of 12 household products as well as five commercial insecticides, for reducing numbers of white fly nymphs on the Gempride variety of tomato (*Lycopersicon esculentum*). From the 12 household products, eight soaps were eliminated after causing phytotoxic reactions in plant grown in a greenhouse. The remaining products (three cooking oils and an "oil soap") as well as the five commercial insecticides were applied to whitefly-infested tomato plants in the field. Nymph counts were carried out one day prior to and six days after each application. Diafenthiuron contributed to the lowest whitefly means, although not being significantly different from two of the cooking oils and the "oil soap" Dimethoate was the least effective.