A lot of pests, diseases and weeds cause economic losses in apple orchards. Among them, codling moth, mites and aphids are the key pests. It is reported that more than 20 pesticide applications were made in the apple orchards in Isparta, especially in the rainy years. Experiments were carried out in two apple orchards 5 and 2 da each, in 2015. Each orchard was divided to four plots for the treatments of kaolin, azadirachtin (neem), Chlorpyrifos-ethyl and water for control. Applications were made by spraying onto the plants. Randomized complete blocks design was used with six replications and each replicate had 8 trees. Leaf samples were regularly collected from the plots every week and mites (Tetranychus urticae and Pananychus ulmi) and aphids (Aphis pomi and Dysaphis plantaginea) were counted. Codling moth infestation rate was determined by counting the infested fruits both on the trees and dropped ones at harvest time. As a result of the study, chlorpyrifos-ethyl was found to be the most effective pesticide against aphids and followed by kaolin and neem. While the test materials showed a similar effect against red spider mites, the infestation rates of codling moth were as follows; control plot (49.99%), kaolin (42.27%), neem (41.20%) and chlorpyrifos-ethyl (31.23%).