Summary of trials

Current practice:

The olive fruit fly poses a severe economic threat for the state’s commercial olive growers. The larvae (maggots) of the olive fruit fly feed inside the fruit and allowing the entry of secondary bacteria and fungi that can cause the fruit to rot and degrade the quality of the oil. Feeding damage can cause premature fruit drop and reduce fruit quality for both table olive and olive oil production. Large numbers of rotting fruit on the ground can create an unwelcome mess, especially in landscaped situations. Geographic Area/Environmental Considerations: Trials will be conducted in the olive growing region. On commercial olive varieties. Conduct 5-6 trials in olive growing regions. Olives GF-120 NF Naturalyte Fruit Fly Bait, an organically acceptable product containing the biologically produced insecticide spinosad, recently has received registration for use on olives in California. GF-120 attracts olive fruit fly adults, which feed on the bait, and causes adult mortality. GF-120 is concentrated and needs to be diluted with water at 1:1.5 to 1:4 (GF-120 NF: water) before application. Follow label instructions for methods of dilution. GF-120 applications should commence when olive fruit fly adults are captured on the monitoring traps or at least 2 to 3 weeks before pit hardening. Repeat applications every 7 days until harvest when flies are captured on monitoring traps. GF-120 should be applied at a 2.5 to 7.5 ounce dilute spray per tree using a 1:1.5 dilution or at a 5 to 15 ounce dilute spray per tree using a 1:4 dilution with very large droplet size. Droplets should be 5 millimeters or more in size and uniformly dispersed around the tree. Other materials will be applied according to the label. Data to Collect: Scout for adult flies that emerge from March to May and attack olives remaining on trees from the previous season. During early summer (June) as temperatures and day length increase and few mature fruit remain on trees, female flies do not lay eggs. Although few olives are present from the previous crop to host the egg laying, the adults remain active, and they may disperse to new locations such as citrus orchards or vineyards. By late June to the beginning of July as the new olive crop develops, females begin to lay eggs and are attracted to the fruit. Although eggs may be laid in small fruit, the larvae do not successfully develop until the ripening fruit grows to sufficient size. Eggs are laid just under the fruit’s skin, often creating a dimple or brown spot. Will observe for the dimple or brown spot. The use of baited traps will be used to determine presence of the pest.

New materials are needed but this task was daunting.

Year 1 we had a freeze

Year 2 low fruit set

Year 3 low fly numbers

Summary

These sites did not have much fly activity and the trap counts were low all season long. The first year these trials were placed and there was a freeze and there was not a lot of olives on the trees. The second year there was not a big crop due to the freeze and this year the two sites did not have high flights numbers.

Also this type of trial due to the nature of the pest should be set up in blocks because I feel that the fly does not lay egg down the row evenly the fly lays randomly. So setting up the trial in single trees down a single is difficult. The trial was set up in a single row single tree because crop destruct charges.