Qfly building up in GSPFA

Background

The Greater Sunraysia Pest Free Area (GSPFA) has 1150 cue-lure traps deployed in 77 localities, covering a total area of about 10,500km^2 for monitoring the presence, or absence, of the serious fruit and vegetable pest, Queensland fruit fly (Qfly). The number of Qfly trapped, as well as their timing and location, warn of Qfly population build-up and incursions to enable the strategic management of the pest.

Within the GSPFA, there are 953 traps in Victoria and 197 in NSW. They are serviced by the Victorian Department of Jobs, Precincts and Regions (DJPR). Traps are placed out in urban, peri-urban and rural sites, and trapped flies are collected, identified and recorded every fortnight. There are 297 traps in urban sites, 121 in peri-urban locations and 732 in rural sites.

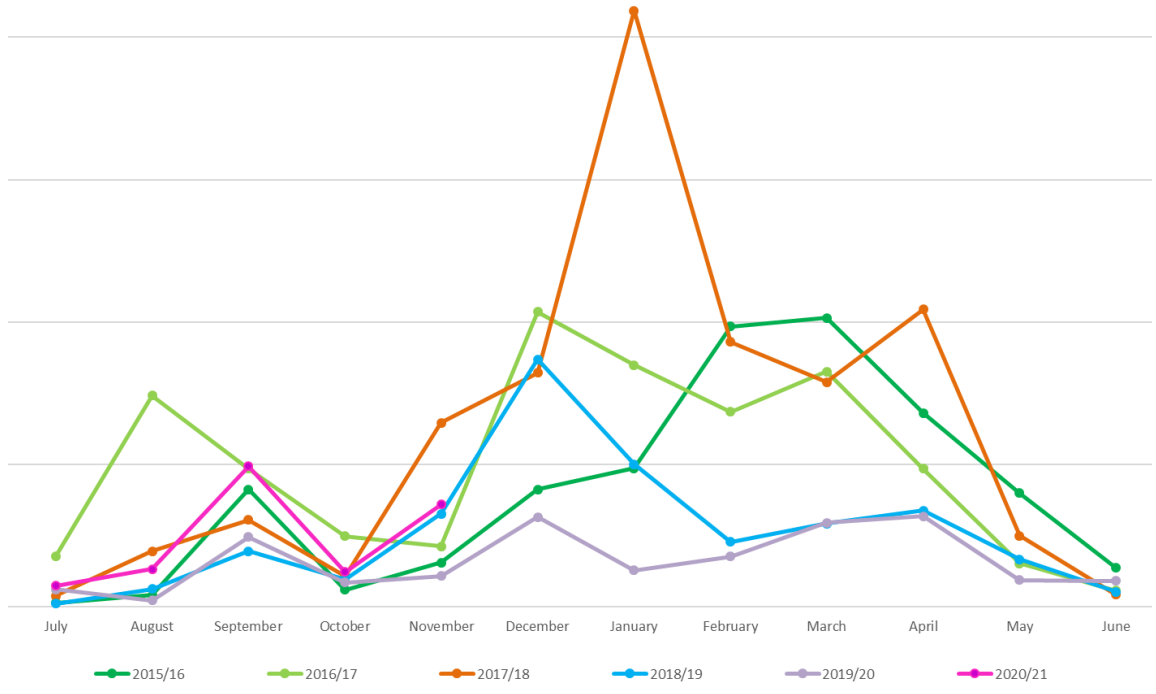
Trends in fly numbers

Qfly trapping rates across the GSPFA bottomed out during July 2020, with 80 per cent of traps reporting no Qfly. During August 2020, numbers began to creep up, followed by a significant increase during September. The number of Qfly trapped in September was the highest since 2016. September, in the GSPFA, is the start of the spring peak in Qfly populations.

As expected, numbers went down in October in response to flies that survived winter having died out before the eggs they laid emerged. This is a normal pattern experienced each year. During November, eggs, larvae and pupae produced by surviving flies start to emerge as adult flies.

The number of flies trapped in November this year was three times higher than the same time last year. The high number of flies that survived winter and had the opportunity to mate and lay eggs in spring has regrettably resulted in high numbers of new flies emerging during November. Weather plays an important part in the variety of fruit available for Qfly to infest in spring as well as how many flies survive winter. Warm, moist winter weather encourages the survival, growth and spread of Qfly.

Figure 1: Queensland fruit fly detections within the Greater Sunraysia Pest Free Area (2015/16 to 2020/21)



Current fly behaviour

The spring peak for Qfly has been and gone, leaving immature Qfly in fruit or as pupae in the ground. During November, the pupae matured and became adult flies. If these adults can find a mate, they will breed. November is the start of the summer season, which is expected to peak in December and January but will continue through the fruiting season – generally into May if temperatures are warm enough.

Be on the lookout for any early ripening or late hanging fruit. It is this fruit that the new Qfly generation for 2020/21 will use to increase their population. If this fruit or their plants are removed, the early flies will have less fruit to infest and Qfly populations will be more easily controlled.

What is the summer peak?

After overwintering flies have proliferated during the spring peak, they die off in October. However, before they die out, weather conditions allow them to mate and mature their eggs. If they can find fruit, they will infest it. While the parents die out, the offspring (eggs, larvae and pupae) are on the landscape waiting for enough warmth and time to emerge as adult flies. These flies then mate and cause second, third, fourth and maybe even fifth generation flies between November and May.

Keep watching for Qfly throughout December and into the new year by trapping and examining fruit and dealing with Qfly as soon as it's found.

Seasonal advice

Qfly is starting to build-up. You should have traps out now and ensure you have supplies of baits or pesticides should fruit fly numbers increase. For more information on bait spraying for Qfly in stone fruit, citrus and table grapes, download the information sheet from the GSPFA website.

Very important: Don't forget to check for Qfly in your house garden because flies may have survived winter by finding refuge in evergreen plants and in warm spots near the house or packing/machinery shed. Many rural sites in the GSPFA have trapped Qfly in spring – well before bearing in their commercial orchards and vineyards.

Three-month weather outlook

Weather patterns forecast for January through to March 2021, provided by the Bureau of Meteorology, show only a 55–60 per cent chance of rainfall being higher than the normal amount of rain received in this period (50mm to 100mm). Maximum temperatures have a moderate (60–65 per cent) chance of reaching higher than normal maximum temperatures (30°C to 33°C). Minimum temperatures have a high chance (>80%) of being higher than average minimum temperatures (15°C to 18°C).

These weather patterns are not favourable to mass Qfly survival and population explosions, principally due to the less than expected rainfall. The La Niña effect currently in play in south east Australia appears not to be as intense as originally thought probable. This means that moisture may be limiting to fruit and insects, as well as naturally occurring yeasts, bacteria and fungi, which serve as fruit fly feed.

Nevertheless, these weather conditions may encourage greater use of home and orchard irrigation. This creates pockets of higher-than-average relative humidity and better fruit set and growth. Qfly will prosper in these pockets and could cause great damage to crops if not controlled.

This information was compiled by Andrew Jessup of Janren Consulting for the December 2020 Greater Sunraysia Pest Free Area grower newsletter.