

Update on the ISDA Japanese Beetle Monitoring and Eradication Program in Boise for the Environmental Care Association August Newsletter

As we move into the final months of summer 2014 we'd like to thank everyone who has worked with the Idaho State Department of Agriculture in an effort to make our current Japanese Beetle monitoring and eradication program successful. During the week of July 14-18 our second scheduled treatment of approximately 500 residential/commercial properties, 14 properties maintained by Boise Parks and Recreation, as well as selected areas on the BSU campus was carried out. The first 2014 treatment occurred on May 19-23. Both involved the application of granular insecticides to lawn/turf areas, where Japanese Beetle larvae (grubs) are known to feed.

To recap Japanese Beetle history, this highly aggressive invasive pest, firmly established in the eastern half of the US for almost 100 years, had never been captured in Idaho in any numbers suggesting an infestation until very recently. After 20 years of JB trap monitoring, with most years resulting in zero beetle captures, 61 were collected during 2012 – most in downtown Boise. The following year 3,058 beetles were captured, indicative of a rapidly expanding local population. Because JB, while feeding as immatures, can devastate lawns, parks, golf courses and other similar grassy areas, and while feeding as adults, can cause considerable damage to over 300 types of trees and bushes (particularly favoring roses, hydrangeas, grapes, apples, peaches and berries) it became necessary for ISDA to set up and put into place an eradication program to wipe out JB in the early stages of infestation before it could become established in Boise and potentially move to other nearby susceptible areas in Idaho.

The number of JB traps, historically at approximately 300 throughout the state, has in recent years been drastically increased, particularly in Boise, to more accurately determine where the beetles are located, where they might be moving and if the population is increasing or decreasing (especially in response to treatment activities). We have been able to collect this valuable data in a timely manner to aid us in executing and refining treatment plans, and we have also been able to make it available on the ISDA website this summer for anyone who is interested.

Based on where beetles were initially captured in 2012, during the summer of 2013 a block of approximately 100 properties in the Warm Springs neighborhood of Boise, as well as several Boise parks, were treated with insecticides registered for JB control (both foliar and granular applications). Because turf treatments target the beetle grubs it is generally not possible to assess the impact of the chemicals until the year following treatment (when adults produced by those grubs would be flying). JB trap captures throughout the 2013 field season indicated some new areas with increasing beetle presence and treatment areas being proposed for 2014 were expanded to include those. Most notably about 150 new properties were added to the Warm Springs block, and the West State Street treatment area was added to the agenda. As indicated above, everything slated for treatment this summer received a pesticide application once in May and once in July.

During May JB monitor traps (baited with the female pheromone to attract males and with a floral scent to attract females) were set up throughout the state, with the greatest concentration in Boise, in preparation for beetle flight which typically begins in mid-June. The first beetle of 2014 was reported on

June 19. As predicted JB adults were collected in the traps throughout July with peak numbers seen around the middle of the month. Traps continue to attract active beetles, however, the numbers have dropped dramatically and it is believed that the bulk of what will be seen has been captured.

Comparing trap data from 2013 and 2014 it appears that beetle catches, overall, are down about 60%. This is interpreted as evidence that the 2013 treatment did have a positive effect in regards to beetle control. When looked at in the context of the 100 properties treated in the Warm Springs neighborhood during 2013, JB captured in that area last year was in excess of 1900 beetles. This year, to date, 73 beetles have been trapped on those properties – a reduction of approximately 96%. Conversely, areas that were not treated during 2013 generally exhibited higher trap catches this season than last with beetles showing up in some locations where they had never been captured before. By the time traps are taken down in October data will be analyzed to determine what areas in Boise will be targeted for treatment during 2015 to continue building the momentum against JB establishment which appears to have resulted from our eradication efforts to date.

Clearly JB eradication in Boise, to be successful, will need to be a multi-year project. It is hoped that when 2015 treatment plans are finalized and property owners are contacted, response will continue to be positive, especially in light of the current data indicating the high degree of efficacy associated with the plan and tools that have been chosen. If you have questions about Japanese Beetle or the monitor/eradication program please contact Paul Castrovillo, Pest Survey and Detection Manager at Paul.Castrovillo@agri.idaho.gov or (208)-332-8627.



Japanese Beetle trap (ISDA photo)



Adult Japanese Beetle on rose (ISDA photo)