

Japanese Beetle

Popillia japonica Newman

The Japanese beetle (JB) was first detected in the United States in 1916 in New Jersey. In 1918, USDA and New Jersey authorities attempted to eradicate the pest; however, after only two years, the infestation was already so well established that eradication efforts were useless. By 1932, populations were found as far west as St. Louis. Currently, JB occurs throughout the majority of the U.S. east of the Mississippi River. Several states west of the Mississippi River, including Colorado, are also reporting JB captures.

The JB is a highly destructive and economically costly plant pest. In the larval stage, JB grubs feed on grass roots causing major damage to golf courses, home lawns, and pastures. Adults feed on the foliage of over 300 different agricultural and ornamental host plants. Feeding damage is typically devastating and costly.

State officials and parties with commercial plant interests are concerned about the introduction and establishment of JB in Colorado. Due to the highly destructive nature of the insect and the associated costs and availability of only marginally effective controls, it is imperative that vigilant trapping protocols be established and monitored throughout the growing season. It is believed that the best strategy for successful eradication of JB is early detection, isolation, and elimination of populations.



Japanese Beetle (*Popillia japonica*)

Insect Description: Small to medium-sized scarab beetle, approximately 3/8 inch to 1/2 inch in length. Beetles are shiny metallic green with brown to copper-colored elytra (top of beetle). Beetles are also characterized by white tufts of small hairs along the sides.

Trapping Period: It is advisable to have the traps up by mid-April in order to ensure attraction to any beetles that may emerge prior to known emergence periods. Leave it/them in place through the end of September.

Trap Set-up and Assembly: Attach a pheromone lure (the orange rubber septum) and a floral attractant (the white plug in the clear plastic package) to each trap used as pictured below. Some of you may have one trap, others may have more. **Please keep any surplus pheromone lures and floral attractants frozen to retain freshness until you use them.** Replace the pheromone lure and floral attractant after 8 weeks. You may discard the old attractants. Place the trap anywhere you wish, however, placement near a fruit tree, rose bush, or ornamental shrub is preferred.

Instructions for attaching the JB attractants.



Pictured: Peel off and entirely remove the white protective film from the floral attractant packet. Remove pheromone lure (orange rubber septum) from the package and insert it into/through hole in yellow fin as shown. Rotate trap top one-quarter turn and insert the clear package into the vertical fin slits as shown. The opening of the floral attractant should be facing inward.

Monitoring Schedule and Procedure: Please attempt to check the contents of each trap a minimum of every two weeks. To check the traps, unscrew the top and look into the green bottom. If you see critters, dump them out on a flat surface. Examine the trap contents for any shiny beetles that resemble the above photograph. Save suspicious material. You may do as you wish with the rest. Any suspicious material is to be sent to the Mesa County Extension office in Grand Junction as soon as possible for identification. Please keep the contents collected separated by date. It is suggested you use ziploc-type sandwich baggies and write the date and location of each trap on each baggie. If you save any material, please preserve it in some manner until it is shipped or otherwise identified. This could be as simple as freezing the insects. If you have insect pins and are familiar with how to use them, please feel free to curate the specimens and ship them thusly. Also, please keep a written record that provides date, county, and collector's name for each specimen. If nothing is to be recorded for any particular date, please record that date and indicate that nothing suspicious was retained and sent in.

GPS Data: If you have the ability to do so, provide GPS coordinates (i.e., latitude, longitude) of your trap locations. If not, do not worry about getting them.

Note: Due to the fragrant nature of the floral attractant, JB traps have a tendency to and will draw in a wide variety of insects, most notably, bumblebees and honeybees. That our already struggling pollinating insects succumb to the traps is, indeed, an unfortunate consequence of trapping efforts. Mortality of non-target insects can be mitigated however, by checking trap contents more frequently. If possible, traps can be checked every other day or even daily. Using care, living non-target insects can be released back into the environment.