

## Life Cycle

The Japanese beetle goes through four life stages--egg, larva (grub), pupa, adult. There is one generation per year which molts into a pupa formed in an earthen chamber in the late spring. Japanese beetle adults emerge from the pupae in late May through early October. The females mate and begin to lay eggs immediately upon emergence. The eggs hatch into larvae which begin to eat grass roots and continue feeding until the cool weather comes, usually in November. They then stop feeding and dig down into the soil to overwinter. In the spring, the larvae come back up into the root zone as the soil warms. They feed for a short time, pupate and begin the cycle anew. Because of our early, warm springs

and warm falls, the exact timing of this cycle may be altered in California compared to eastern populations.

## Hosts

The larvae feed almost exclusively on the roots of grass plants. The adults will eat a wide variety (over 300) of plant leaves, fruit and flowers. Preferred hosts include: roses, plums, peaches, nectarines, apples, grapes, corn, maple and elms.



## If You Notice:

- 1. Extensive defoliation of your roses or grapes;**
- 2. Beetles on roses or grapes that look like the pictures**

## PLEASE NOTIFY:

**Agricultural Commissioner's Office**

or

**Japanese Beetle Project Office**

SHASTA COUNTY  
DEPARTMENT OF AGRICULTURE  
3179 BECHELLI LANE, SUITE 210  
REDDING, CA 96002  
(530) 224-4949

**Thank you for your cooperation**

Photographs Courtesy of USDA

# JAPANESE BEETLE

A Major Pest of Plants

**CALIFORNIA DEPARTMENT  
OF FOOD AND AGRICULTURE**

**1220 N Street  
Sacramento, CA 95814**



Sacramento Bee photo by Frank Stork

## What is the Japanese beetle?

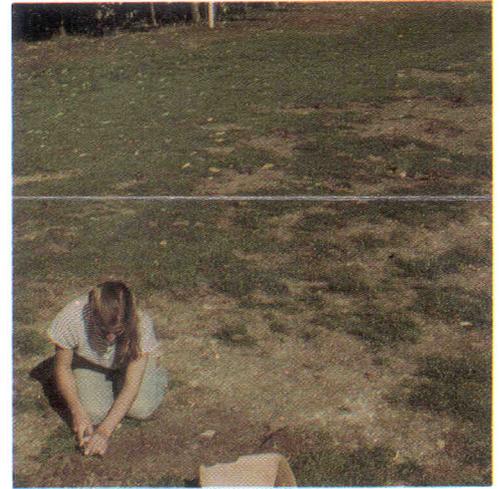
It is a beetle that is a serious pest of grasses, roses, grapes, corn, and many other trees and plants. Japanese beetle larvae (grubs) eat the roots of several plants, especially grass, and can kill large areas of lawn and turf. Japanese beetle adults eat the leaves, flowers, and fruit of over 300 trees and plants.

## How did it get to the United States?

It was brought into New Jersey from Japan in the soil surrounding potted plants around 1917. Since then, it has spread throughout the eastern seaboard, down the gulf into Alabama and west to the Mississippi. The adults can fly up to five miles or more and can be carried in cars or airplanes. The larvae can be carried in the soil around plants and are moved by man.

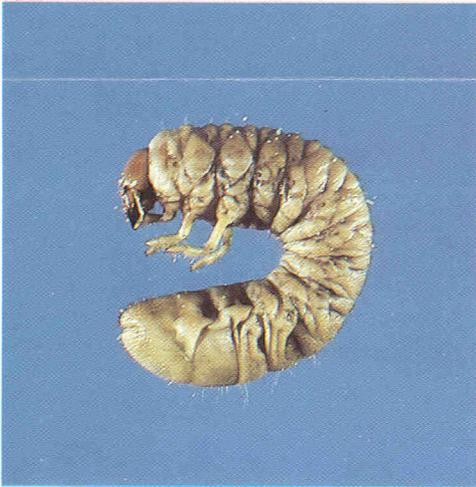
## How did it come to California?

The Japanese beetle continually hitchhikes to our State inside commercial aircraft leaving infested eastern airports. We catch 20-300 adults at California airports every year. We have also found the adults in automobiles and luggage of travelers from infested areas as well as in the mail coming from infested areas.



### Turf Damaged by Larvae

## Adult Japanese Beetle



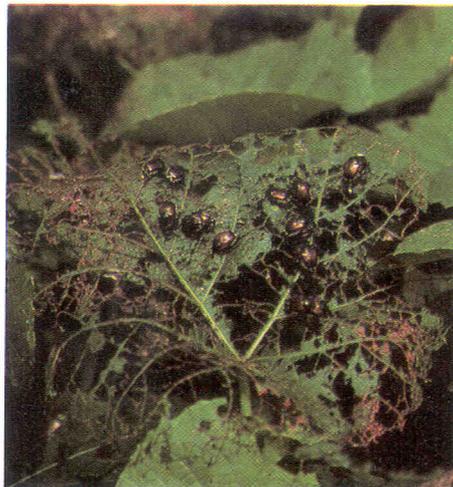
## Japanese Beetle Larvae

## How did it survive?

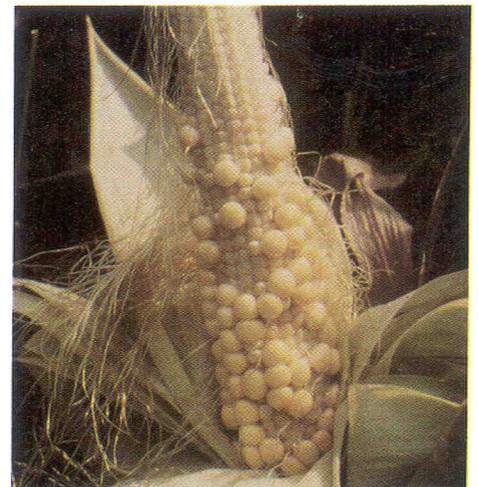
California presents an ideal situation for the Japanese beetle. We have extensive plantings of irrigated grass in our yards, parks, playgrounds, etc., for the larvae to feed upon, and numerous host plants like roses, grapes, and corn for the adults to feed upon. We also have no natural enemies of the beetle here to retard the build-up of large, damaging populations.



### Adults Massed on Fruit



### Adults Stripping Grape Leaves



### Corn Damaged by Adults