

WHITE GRUBS



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Identification: White grub larvae have a curled C-shaped body measuring approximately ¼” – 1” long depending on life stage. They are creamy white in color with tan colored heads and dark hind parts. They have 3 pairs of legs and raster patterns (fine arrangement of hairs) are used to identify one white grub from another.

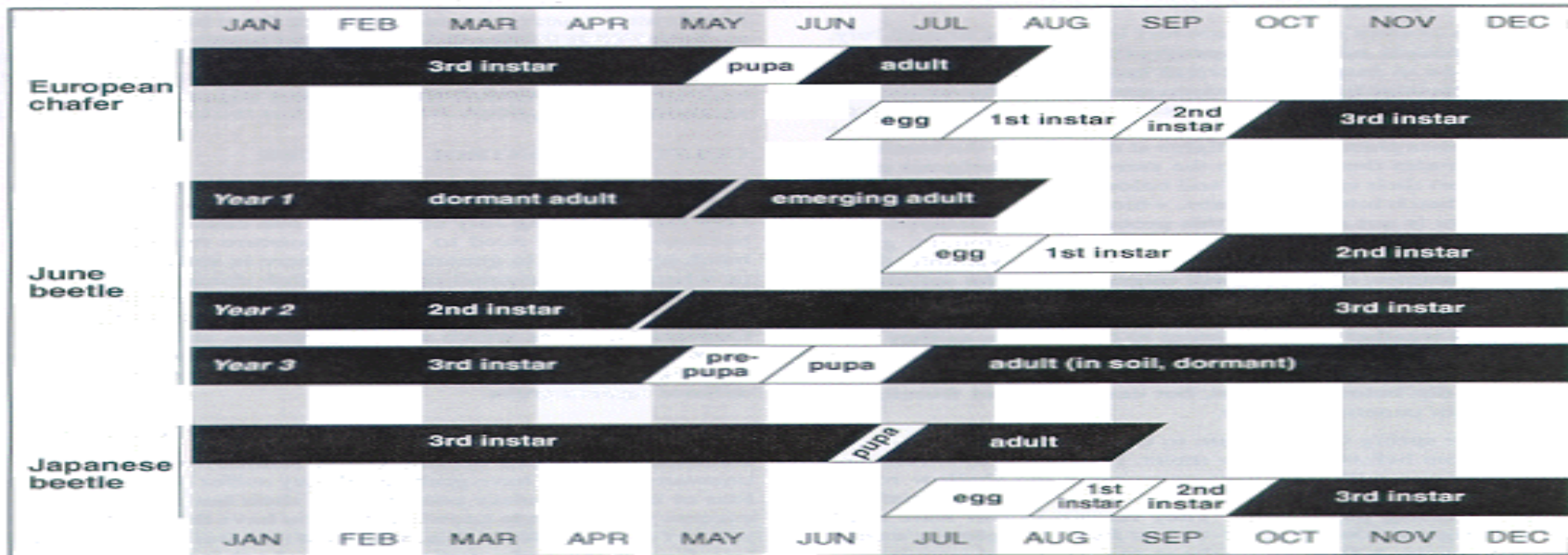
Symptoms: White grub larvae actively feed on the roots and crown of the turfgrass. Irregularly shaped brown patches of turf, particularly in late spring or early fall appear. Dead patches of lawn roll back easily, like a section of carpet. Birds, raccoons, and skunks may damage a lawn looking for grubs.



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Life cycle: Grubs overwinter as larvae and begin feeding early in the spring. Adult beetles begin to appear around late spring or early summer and lay eggs to begin next generation. A second generation emerges in late summer and feeds into the fall. Grubs either have 1 or 2 generations per year or it may require more than 1 year to complete one generation.

Figure 7 – Summary of European Chafer, June Beetle and Japanese Beetle Life Cycle



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White Grubs - Adults

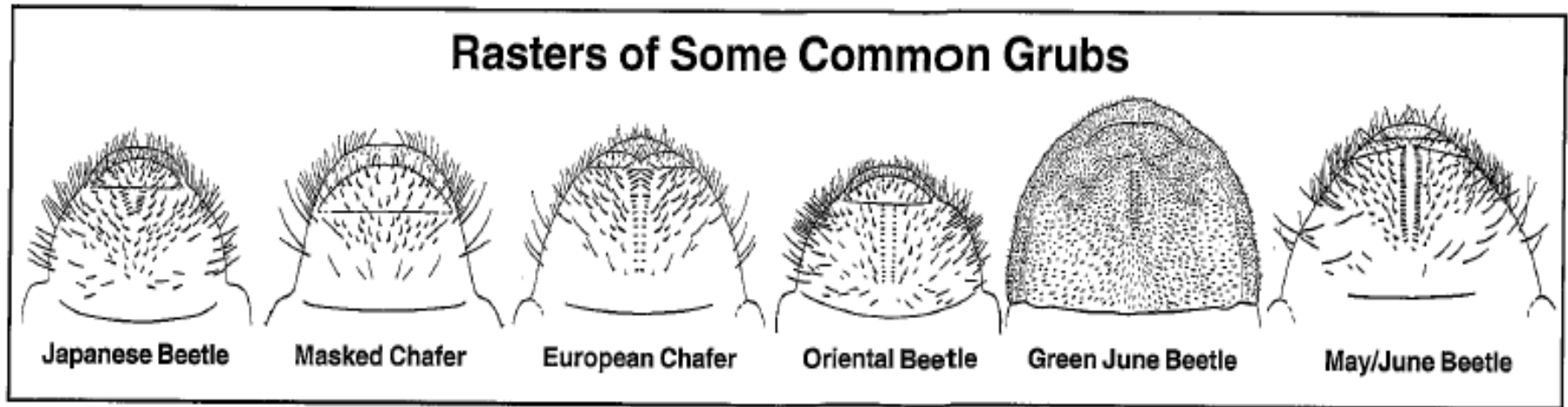
Although white grub larvae all may look similar or close to the same as they progress through their life stages and become beetles they look much different when they become adults. As seen below they come in many different shapes, sizes, and colors.

- Asiatic Garden Beetle
- Black Turfgrass Ataenus
- European Chafer
- Japanese Beetle
- Northern Masked Chafer
- May/June Beetle
- Oriental Beetle



White Grubs

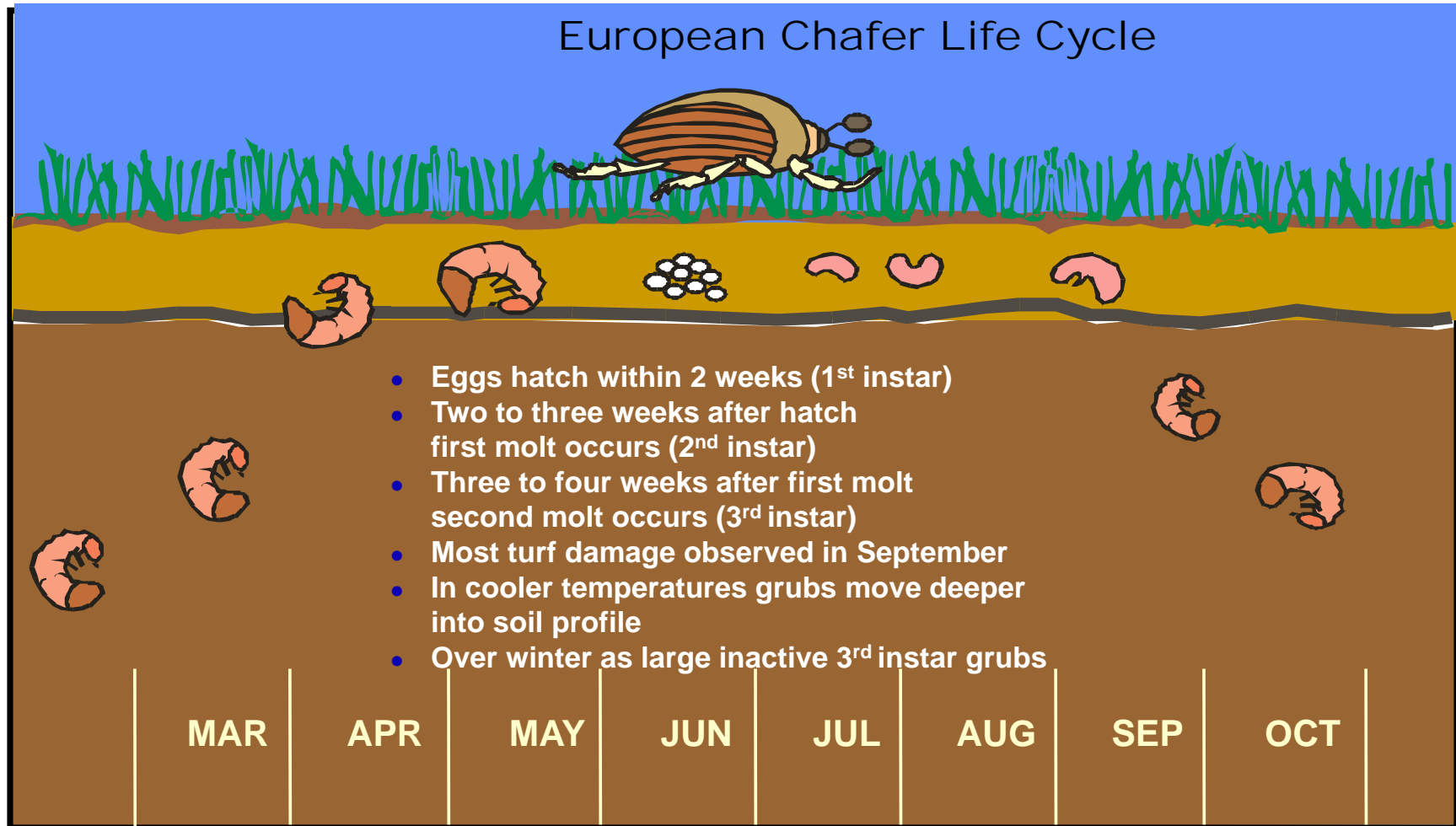
Raster Patterns: White grub larvae are typically identified from one to the next by an arrangement of fine hairs on their hind side called raster patterns. It is important to identify which type of white grub you have since life cycles and generations can vary between grubs. European Chafer larvae typically are identified by the “open zipper” raster pattern. Japanese Beetles have a “V” shaped raster pattern.



EUROPEAN CHAFER



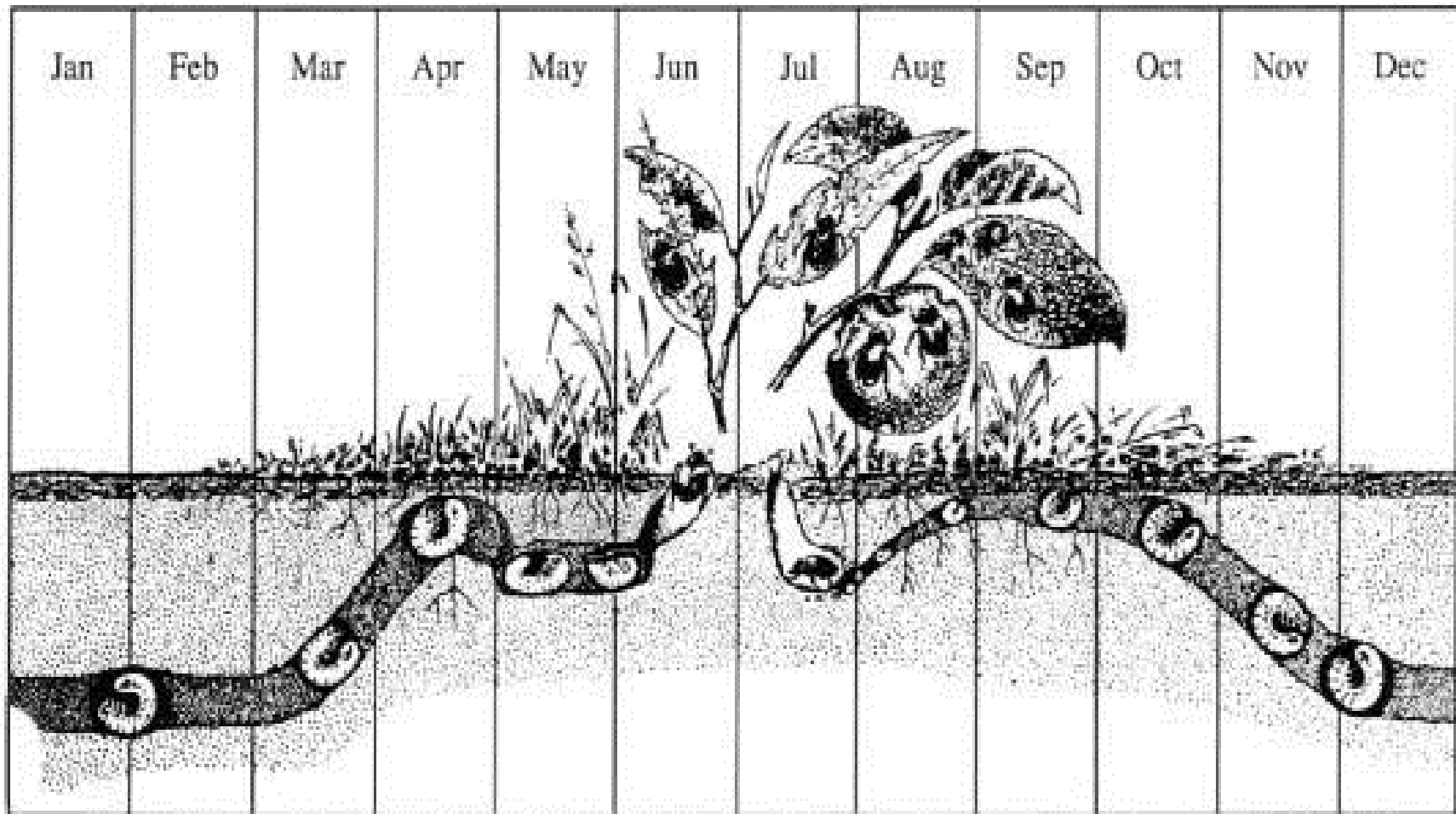
EUROPEAN CHAFER



JAPANESE BEETLE



JAPANESE BEETLE



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Control:

Threshold limits can vary depending on the health of the turf, but generally when 7-10 white grub larvae per square foot are present a control treatment is required. There are a number of different synthetic control products that are very effective against white grubs, and biological control options are also available but are not as effective. Selecting the proper control product based on the insects life cycle and timing the application based on this criteria is very important. Check with you local State or Province to learn what is available to use in your market.



DAMAGE



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