"Ask The Grub Oracle"

by Dr. Albrecht M. Koppenhöfer

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Ask Dr. Koppenhöfer questions concerning your insect problems by e-mailing him at HQ@sfmanj.org

Question: Is there any factor other than historical data that would cause a turf site to be considered a high-risk area for grub infestation?

Answer: Grubs prefer soil in the range from sandy loam to loam. Female beetles have a preference for nice lush looking turf and moist soil when searching for egg-laying sites and generally seem to prefer sunny areas. The eggs have to absorb water from the soil in order to develop. They actually almost double in size in the process. Similarly, the first instar grubs are much more prone to desiccation than the bigger ones. So, overall sites that are moist during egg-laying periods are more prone to get higher grub populations.

For species in which the adult beetles do a lot of feeding, the presence of preferred food plants also increases the risk of infestations because the females will often lay eggs soon after having fed. Adult Japanese beetle feed on > 300 plant species but lindens, purple leaf plums, roses, Japanese and Norway maples, bracken, elder, grape, Indian mallow, multiflora rose, sassafras, smartweed, and Virginia creeper are among the most attractive food plants. Adult Asiatic garden beetle feed on > 100 plant species but have a preference for box elder, butterfly bush, cherry, peach, rose, strawberry, sumac, viburnum, and various flowers such as aster, chrysanthemum, dahlia, goldenrod. In addition, Asiatic garden beetle like to seek shelter in orange hawkweed and sorrel.

Masked chafer grubs are fond of decaying organic matter and prefer moist soils high in organic matter. Green June beetle grubs feed mainly on decomposing organic matter and infestations are more likely where manure fertilizer or compost has been applied. ▲

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may still provide good overall curative control depending on grub species (see above), their speed of kill is too slow to prevent impending turf damage. ▲

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4. **Turf/soil plug samples:** See the description given on page 10, under the heading "Early detection, sampling and monitoring, damage thresholds". In Dr. Koppenhofer's article on **White Grub Management in Athletic field Turf.**

(Turfgrass Insect & Mite Manual, David Shetlar et. al, PhD, 1990)

The preceding scouting techniques are only a few of the many techniques available to the turf manager for the identification and diagnosis of turf insect problems. Always identify, quantify and justify the need for any pesticide application. ▲