White grub talking points for UMaine Coop Ext Home Hort PLT

1) **get them ID'd,** management options and timing of application varies with species. Our most common species in Maine, in descending order of abundance, are European chafer (feeds earlier in the spring, more aggressive feeder, and feeds later into the fall than other white grub species), Japanese beetle, *Phyllophaga spp,* Asiatic garden beetle, oriental beetle. But this can vary around the state.

2) **organic option**s include beneficial nematodes (entomopathogenic nematodes or EPNs) or letting the crows, skunks and raccoons dig up the grubs and then replanting grass. Beneficial nematodes of the *Hb* variety are relatively effective compared to other varieties of commercially available EPNs. Nematodes should be used on low value turf because their effectiveness can be spotty. They must be applied to wet turf in low light (cloudy days or early morning or late afternoon/early evening) conditions. Some stores in Maine carry them, but are also available via mail order. Timing of application is best during the **last three weeks of August**. Put a lot of water (1/4"-1/2") on treated areas to get EPNs down where the grubs are. Studies in MA have shown that milky spore provides only inconsistent control of Japanese beetle grubs at best.

3) **curative vs preventive** Curatives are applied when the grubs are **present**. Common curatives include carbaryl (Sevin) which is not consistently effective and trichlorfon (Dylox). Dylox has to be applied by a licensed professional and kills, at best, 50% of the mature grubs and is quite water soluble. Also, this does not protect the lawn from the next generation of grubs.

Preventive management targets the next generation of grubs. Most preventives are applied (**June**) just prior to or when the target species are in the adult stage mating and laying eggs e.g. imidacloprid (Merit), chlothianidin, and thiamethoxam. This gives the material lead time to get incorporated into the feeding area or inside the grass plants. Chlorantraniliprole or Acelepryn (professional product) or GrubEx1 (homeowner product) needs to be applied well before adult flights because it needs more lead time (**May**) to get incorporated into the plants. In spite of the EPA's classifying this product as "reduced risk", it has the potential to show up in groundwater and also to harm certain surface water invertebrates.

4) **To protect people, wildlife, pets and the environment**, carefully consider if pesticides are worth it. **Before** buying and applying a pesticide to your lawn, you need to consider your groundwater vulnerability and surface water runoff patterns, especially after a heavy rain, in order to protect marshes, estuaries, rivers, streams, lakes and ponds. Turf pesticides have the potential of getting into your groundwater and also harming non-target organisms in surface water. Pay close attention to the precautions and instructions listed on the product label. Don't apply any pesticides to waterlogged soil.

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Mention of specific products is not intended to be an endorsement.
Information contained herein is subject to change based on weather conditions, location in Maine, product choices, species of grubs, editorial comments and new information based on additional research.