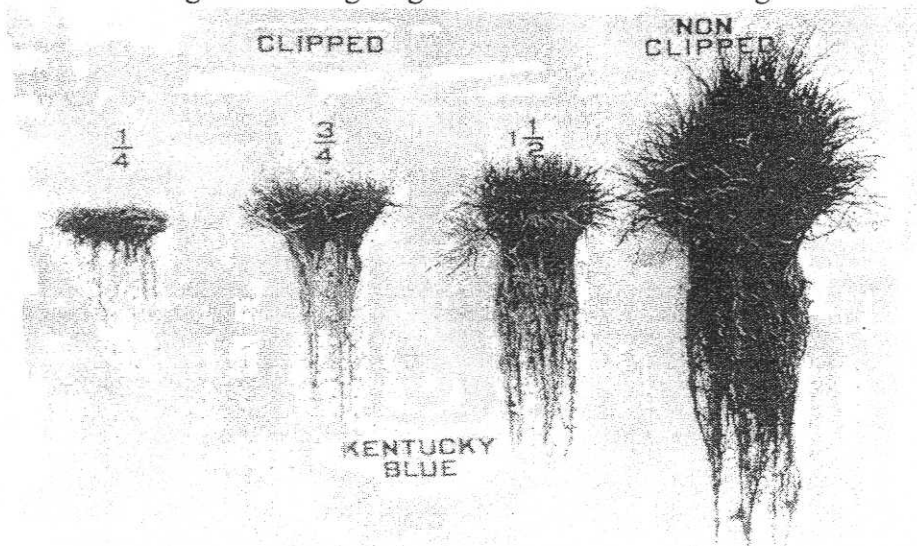


Tour Stop #3: Keys to Preventing White Grub Damage to Home Lawns: Mowing Height, Water and Insecticide

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In previous research we found that the types of turfgrass with the largest root systems were the most tolerant of white grub feeding damage. I am now working with Trey Rogers, Jeff Dunne and Kurt Steinke on a new project to investigate how raising the mowing height and choosing the best turf type for your growing conditions can prevent grub injury without using pesticides. Results of this work will apply to home lawns, golf course roughs, school yards, recreational turf, and industrial turf. Here is what we know so far and what kind of research we are doing:

- Nearly all of the grub damage to home lawns in Michigan is caused by European chafer grubs in dry (non-irrigated) lawns.
- Turf injury from grubs feeding on the roots is not visible on the surface until about 50 – 75% of the root mass is consumed and soil is dry.
- Turf with a large root mass can tolerate more grubs before damage is visible.
- Raising the mowing height results in turf with a larger root mass.



- MSU research plots at the Hancock Center will compare the root mass of 3 cultivars each of Kentucky bluegrass, tall fescue, fine fescue and perennial ryegrass, grown in non-irrigated plots, fertilized at 4 lbs N per year or not at all, and mowed at 2 or 4".
- At Old Channel Trail golf course where we have lots of European chafer, we are mowing research plots at 2" or 4". This fall we will evaluate plots for visible grub damage and root mass.

Goal: To be able to grow healthy home lawns without the use of insecticide, by raising the mowing height, using standard fertility practices, and emergence watering during prolonged periods of dry weather.