White Grubs (Turf)

(Larvae of June beetles, masked chafers, Japanese beetles, and related scarab beetles)
White grubs are **root-feeding beetle larvae** that damage lawns by chewing through the turf's root system. This causes **large brown patches**, **spongy turf**, and **easy peel-back** of sod. Grub damage typically appears **late summer through fall**, but the insects develop underground year-round.

Seasonal Activity Calendar

Icons: 🌸 Spring | 🌞 Summer | 🍂 Fall | ❄️ Winter

Stage / Damage	Type	Active Season	Icons
Adult beetle emergence	Insect	Early–Mid Summer	🌞
Egg-laying in soil	Insect	Mid–Late Summer	🌞🍂
Larval feeding (MAIN DAMAGE)	Insect	Late Summer–Fall	🌞🍂
Overwintering larvae	Insect	Winter	❄️
Spring feeding (lighter)	Insect	Spring	🌸

Symptoms (Homeowner-Friendly)

Visible Signs

Symptom	Description
Brown, irregular patches	Turf dries and dies due to root loss
Turf peels back like a carpet	The BEST diagnostic test—roots are gone
Spongy or loose-feeling turf	Indicates root chewing beneath surface
Animals digging	Skunks, raccoons, and birds tear up lawn to eat grubs
Poor recovery even with watering	Water cannot help once roots are gone

Grub Appearance

- C-shaped, white to cream-colored larvae
- Brown head
- 3 pairs of legs near the head
- Size: ½–1¼ inches depending on species and age

Primary Causes (Colorado Conditions)

- Over-irrigation (beetles prefer moist soil for egg-laying)
- Thatch layers >½ inch
- Lawns with poor soil and shallow rooting
- Heat and drought stress increasing turf vulnerability

- High Japanese beetle populations in Front Range communities

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Treatment & Management

1. Preventive Control (MOST EFFECTIVE)

Apply **June–mid July** before grubs hatch.

Product Class	How it Works
Chlorantraniliprole (Acelepryn)	Excellent long residual, very safe; best preventive
Neonicotinoids (imidacloprid, clothianidin)	Highly effective when applied before egg hatch
Combination products	Target multiple life stages

Preventive treatments stop grubs **before they damage roots**.

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2. Curative Control (For Active Grub Damage)

Use **late August–October** when larvae are present and feeding.

Product Class	Notes
Carbaryl (Sevin)	Traditional curative, effective on larger larvae
Trichlorfon	Fast-acting rescue treatment
Water in thoroughly	Required to move product into root zone

Curative treatments **cannot repair existing dead patches**—they only stop further feeding.

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3. Lawn Recovery After Grub Damage

- Water deeply to help surviving roots recover
- Rake out loose, dead turf
- Overseed or sod damaged areas (tall fescue recommended for durability)
- Add compost to rebuild soil health

When to Worry vs. When It's Cosmetic

🔴 **When to Worry (action recommended)**

- Turf lifts easily with **little or no roots attached**
- Brown patches expand rapidly in late summer
- You find **5–10+ grubs per square foot** (threshold for treatment)
- Wildlife digging increases suddenly
- Preventive treatments were skipped in an area with known beetle pressure

These situations require **immediate curative treatment + overseeding**.

🟢 **Mostly Cosmetic (monitor only)**

- 1–3 grubs per square foot (normal background level)
- Small brown patches that do not expand
- No turf loosening or peel-back
- Turf recovers naturally once weather cools
- Minimal animal activity

Not all grubs require treatment—**only high populations cause noticeable lawn injury**.