

## Japanese Beetle Grubs (Turf)

(Larvae of *Popillia japonica*)

Japanese beetle grubs are **root-feeding white grubs** that cause **severe turf damage**, especially in irrigated Colorado lawns. They are similar to other white grubs but tend to be **more aggressive**, more numerous, and more destructive. Damage appears **late summer through fall** and often requires **preventive treatment** in areas with known infestations.



## Seasonal Activity Calendar

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

<u>Stage / Damage</u>	<u>Type</u>	<u>Active Season</u>	<u>Icons</u>
Adult beetles active	Insect	Early–Mid Summer	☀️
Egg-laying in turf	Insect	Mid Summer	☀️
Grub feeding (MAIN DAMAGE)	Insect	Late Summer–Fall	☀️ 🍂
Overwintering larvae	Insect	Winter	❄️
Light spring feeding	Insect	Spring	🌸

## Symptoms (Homeowner-Friendly)

### Visible Turf Damage

<u>Symptom</u>	<u>Description</u>
<b>Brown, irregular dead patches</b>	Grass dries out and dies quickly
<b>Turf pulls back easily like carpet</b>	Roots are eaten away
<b>Spongy feel underfoot</b>	Root loss loosens the soil-turf connection
<b>Increased wildlife digging</b>	Skunks, raccoons, and birds feeding on grubs
<b>Poor response to watering</b>	Turf cannot recover because roots are gone

### What the Grubs Look Like

- “C-shaped” white larvae
- ¾" long when mature (larger than chafer grubs)
- Brown head capsule
- Raster pattern (hair pattern) unique to Japanese beetles

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### Primary Causes (Colorado Conditions)

- Irrigated lawns (beetles prefer moist soils for egg-laying)
- Dense, lush turfgrass
- Frequent watering during summer
- Shallow-rooted, stressed, or thatch-heavy lawns
- High Japanese beetle populations in many Front Range neighborhoods

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## Treatment & Management

### 1. Preventive Control (BEST METHOD)

Apply **June–early July**, before eggs hatch.

<u>Product Class</u>	<u>Notes</u>
<b>Acelepryn (chlorantraniliprole)</b>	One of the best preventives; long-lasting, low toxicity
<b>Neonicotinoids</b> (imidacloprid, clothianidin)	Highly effective on newly hatched grubs
<b>Combination grub products</b>	Provide broad control across species

Preventive applications stop damage **before it happens**.

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### 2. Curative Treatments (For Active Grub Damage)

Use **late August–October** when larvae are still small enough to control.

<u>Product Class</u>	<u>Notes</u>
<b>Carbaryl (Sevin)</b>	Effective, fast-acting
<b>Trichlorfon</b>	“Rescue” treatment for severe infestations
<b>Must be watered in thoroughly</b>	Needed to move product into root zone

Curatives stop additional feeding but **cannot repair dead turf**.

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### 3. Lawn Recovery After Grub Damage

- Rake out dead material

- Deep water to encourage surviving roots
  - Overseed thin areas (best with tall fescue for its deeper rooting)
  - Lay sod if patches are large or severely destroyed
  - Add compost to help soil recovery
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### When to Worry vs. When It's Cosmetic

#### ● When to Worry (action recommended)

- **5–10+ grubs per sq. ft.** (treatment threshold)
- Large brown patches spreading late summer
- Turf lifts off soil easily
- Heavy wildlife digging
- Repeated infestations year after year
- Preventive treatments skipped in known high-pressure areas

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

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#### ● Mostly Cosmetic (monitor only)

- A few grubs found (1–3 per sq. ft.)
- No expanding patches
- Turf holds firm when pulled
- Symptoms improve with irrigation adjustments
- Grubs declining after early frost

Not all Japanese beetle grubs cause damage—**only high populations** lead to turf death.