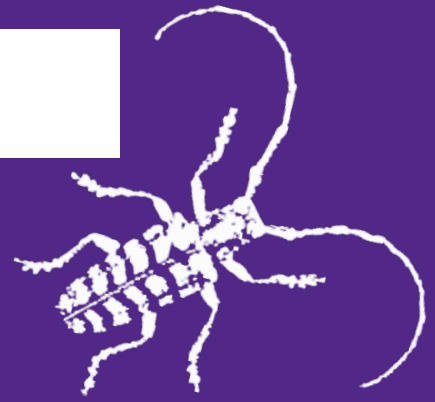


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Buffalograss Webworm

Review of restricted use pesticides and applicator licenses

## Buffalograss Webworm

We have received several inquiries regarding caterpillars causing substantial damage to commercial and homeowner turfgrass. The damage is associated with the buffalograss webworm, *Surattha indentella*. Buffalograss webworm larvae (caterpillars) feed on buffalograss, Kentucky bluegrass, perennial ryegrass, and creeping bentgrass.



Figure 1. Webworm caterpillar (larva)

Full-grown caterpillars are approximately 3/4 of an inch (19 millimeters) long with light-brown heads. They are gray-brown and have light-brown spots arranged in a ring-like pattern around the body (Figure 1). There are six to eight larval instar stages. The caterpillars reside in vertical silken-lined tunnels



Figure 2. Webworm larva (caterpillar) in thatch of turfgrass

in the thatch during the day (Figure 2) and emerge at night chewing-off leaves and stems that are pulled into the tunnel. Caterpillars then feed on the leaves and stems. Damage is most severe when turfgrass is stressed because of inadequate moisture. Feeding damage tends to be more noticeable on berms

and areas where the turfgrass dries out quickly after irrigation. Buffalograss webworm pupates in August in tunnels within the thatch.



Figure 3. Webworm adult on leaf (blade) of turfgrass

Adults emerge (eclose) from pupae in August through September. Adults are approximately 3/4 of an inch (19.0 millimeters) long, light to dark brown, and tubular in shape when resting on turfgrass leaves (blades) (Figure 3). Adults are active at dusk and reside in the turfgrass during the day. Females fly above the turfgrass in a random zig-zag pattern depositing eggs. Each female can deposit up to 200 eggs during their approximate two-week lifespan. After emerging (eclosing) from eggs, caterpillars create cells in thatch or soil where they overwinter as first instar larvae. There is one generation per year in KS.

A pyrethroid-based insecticide (e.g. cyfluthrin, bifenthrin, or lambda-cyhalothrin) should be applied to the turfgrass when young caterpillars are present. At least two insecticide applications may be needed. Check that insecticide applications were effective by inspecting the turfgrass several days after each insecticide application for dead caterpillars. In addition, dethatching turfgrass in spring or fall may mitigate problems with buffalograss webworm caterpillars next year.

Raymond Cloyd – Horticultural Entomology

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## Review of restricted use pesticides and applicator licenses

As the 2023 field season gets into full swing, it's a good time for a refresher on restricted use pesticides (RUPs) and pesticide applicator licenses.

There are lots of ways to categorize pesticides, one of which is general use versus restricted use. In short, a general-use pesticide is one that can be used without any special training. A RUP, on the other hand, should only be used by an individual who is a certified pesticide applicator or is under the direct supervision of a certified pesticide applicator. RUPs are classified as such due to their potential to cause 'unreasonable adverse effects' on the environment, the

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applicator, or bystanders if appropriate precautions are not taken when using the product. Some RUPs you may be familiar with are listed in Table 1.

**Table 1. Various restricted use pesticides (RUPs) listed by active ingredient and product name if applicable.**

Active ingredient	Example product
<b>Herbicides</b>	
atrazine	Aatrex 4L
isoxaflutole	Balance Flexx
metsulfuron	Ally XP
paraquat dichloride	Gramoxone, Firestorm
picloram + 2, 4-D	Grazon P + D
picloram	Tordon 22K
<b>Insecticides</b>	
lambda-cyhalothrin	Warrior II, Karate, Silencer
chlorpyrifos	Lorsban, Duraguard
bifenthrin	Sniper, Brigade, Capture
permethrin	Reality, Pounce, Ambush
methomyl	Lannate
zeta-cypermethrin	Mustang, Stallion
<b>Fungicides</b>	
triphenyltin hydroxide	Agri Tin Flowable

## Private applicator versus commercial applicator licenses

There are two types of certifications that will allow you to use a RUP. A private applicator license allows you to use or supervise the use of a restricted use pesticide to produce an agricultural commodity on property owned or rented by you or your employer. However, a commercial license is needed if you are going to apply pesticides on someone else's property and charge a fee for the service. You can contact your local Extension office if you need to obtain or renew an applicator's license.

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Also remember, there are some extra record-keeping requirements for individuals who apply RUPs. There is no standard form, but within two weeks of the application, you should document what was sprayed, including:

- the date and location of the application,
- product name and EPA registration number,
- total amount applied and area treated,
- the site to which the application was made, and
- the name and certification number of the applicator.

*The use of trade names is for clarity to readers and does not imply endorsement of a particular product, nor does exclusion imply non-approval. Always consult the herbicide label for the most current use requirements.*

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Frannie Miller – Pesticide Safety and IPM Coordinator

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HOME

**Sincerely,**

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[Need an insect identified? Visit the Insect Diagnostics Program Website](#)

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