Pest ALERT: TRUE ARMYWORMS

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Take a CLOSER Look in your FIELDS for**:**

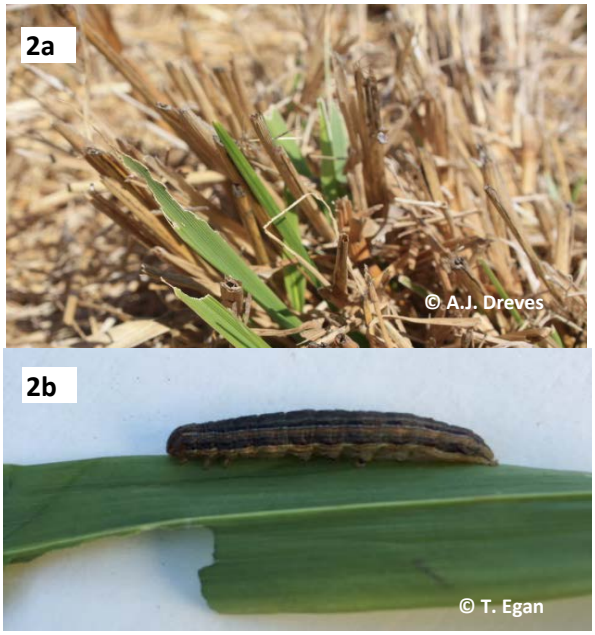
True (Common) Armyworm

(*Mythimna (=Pseudaletia) unipuncta*) (**Fig. 1**). Approximately two weeks ago, large numbers of true armyworms were found in the south Willamette Valley, feeding heavily on the leaf blades of tall fescue and orchardgrass located in the Harrisburg and Halsey areas. Very recently observations have been made in the North Willamette Valley in tall fescue seed fields and on sudan grass planted as a cover crop between nursery stock rows.

The term "armyworms" generally refers to the immature stages (worms, caterpillars, larvae) of many species of moths in the family of Noctuidae. They occur "suddenly" in large numbers (like the winter cutworm in 2015), and can cause extensive defoliation of plants over broad areas. They feed on above-ground parts of plants by night and hide in soil cracks, protected areas, and under vegetation (crop residue) by day. They notch leaves and leave jagged leaf edges (**Figs. 2a & b**). When they consume most leaves and stems (as we are witnessing), they move quickly to adjacent plants.

True armyworms attain high densities irregularly, often at 5 to 20 year intervals. They were last documented in 2004-2006 from Myrtle Point to the mid-Willamette Valley. Populations of over 30 larvae per sq. ft. were recorded! Historically, damage from the armyworm in Oregon has been sporadic and localized.

Documented HOSTS: turf, pasture grasses, corn, cereals, grasses grown for seed, corn.



Figs. 2a-b. Evidence of larval feeding on grass leaf blades.

Identification. TRUE ARMYWORM *LARVAE* look similar *to Winter Cutworms*. However, they are smooth-bodied, tan-brown, about 1/2 to 1.5 inches long, with several alternating dark and light stripes, yellow-orange bands (**Fig. 3**). You will see dark brown to black blotches or triangles located on the side of each of the four back prolegs. They can climb plants.

Fig. 3. Alternating bands of light and dark.

In western Oregon, ARMYWORMS are known to grasses, usually tall fescue in August-September. Late-summer flights of moths lay eggs in established grass seed fields after harvest. Eggs hatch in approximately 1 week, and resulting larvae feed on new regrowth.

Extensive damage may result if the population is not treated. Large numbers of larvae feed so voraciously that mass migrations of larvae can occur within a field and to adjacent fields very quickly. Outbreaks are infrequent and are associated with unusually high spring rainfall in California which favors survival of the first generation. Most likely, true armyworm adult moths migrated into Oregon from California early summer following green plant material.

Management

Threshold: 4 larvae per ft^2

When scouting, first check for armyworm larvae in and around crowns, where birds (swallows, crows) are feeding. Remember, true armyworms feed at night. In daylight, dig around in the thatch and at the base of the plant to see the armyworms. They will be curled up in a "C"-shape. Also look for armyworm frass (larval excrement that resembles dark grass seeds) (**Fig. 4**). Look under residue and close to the crowns. They do not like light and need moisture. Armyworms are not well adapted for hot temperature, so we expect larval activity may slow down for a short period of time, however activity will likely pick back up. Make several larval counts to estimate the density.

Fig. 4. Evidence of frass from larval feeding.

Biological Control. Armyworms and cutworms both die from natural causes. In the last week, we have observed fungal diseases, tachinid flies, a wasp parasitoid, and ground beetles in local fields (**Fig. 5**). These are the key factors for larvae mortality and help keep the armyworm in check.

Fig. 5. A lighter-colored young armyworm and parasitized pupa dead from wasp larvae.

Chemical Control. There are several pesticide products currently labeled for armyworm control in Oregon. Insecticides are most effective when larvae are small. There is little benefit to spraying when the pest is full grown. We recommend spraying at night and rotating chemistries if more than one application is needed.

****See the PNW Insect Management Handbook for current insecticide registrations per crop**.

Current pesticides listed for control of armyworm:

cyfluthrin (**Baythroid XL**)
zeta-cypermethrin (**Mustang MAX**)
bifenthrin (**Brigade 2EC and WSB**)
chlorpyrifos (**Lorsban Advanced**)
carbaryl (eg. **Sevin XLR Plus**)
lambda-cyhalothrin (**Warrior**)
spinosad (**Success or Entrust**)

*Be aware of solubility differences among products