Late Season Insect Pests in Newly Seeded Alfalfa

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As summer draws to a close, alfalfa producers may be wondering if there's still time to seed alfalfa or if planted, what to watch for in newly seeded stands. Many areas of the state received beneficial rainfall in August and early September, however, certain areas remain dry. In years with adequate rainfall, late summer or fall is typically the best time to establish alfalfa. Yields from late summer seeding are generally higher than yields from spring seeded alfalfa in the establishment year.

Seeding into dry conditions is always risky since a certain amount of moisture is needed for the germination process to begin. In addition, the newly developing root system needs consistent access to moisture to sustain the plant and build the essential carbohydrates in the crown prior to the first frost. Near normal August and September rainfall should be more than adequate to establish productive stands in the fall. In addition, as a rule of thumb, you should seed alfalfa six to eight weeks before your area receives a killing frost. The timeframe for the first frost can vary year to year. For most of Oklahoma, optimum seeding occurs between August 20 and September 20.

What to look for in seedling stands:

Insects can begin attacking alfalfa plants at or before emergence. Frequent scouting of new stands is essential to maximize insect control. Grasshoppers, fall armyworms, cutworms, and other general feeders can infest and destroy stands in a few days. Infestations of fall armyworm in pasture, and other crops including alfalfa, have been of special concern this year and relief won't occur until we get a hard freeze (Fig. 1-3). Timely application of insecticides is the most reliable method of control.

Figure 1. Differential Grasshopper

Figure 2. Fall Armyworm

Figure 3. Army Cutworm

During late summer and fall, spotted alfalfa aphids can build on seedling alfalfa. Blue alfalfa aphids come into fields in the fall as temperatures moderate and are present nearly every winter and spring. Threshold for spotted and blue alfalfa aphids are 1 aphid/stem in newly seeded stands (Fig. 4-5).

Figure 4. Spotted Alfalfa Aphid.
Photo Credit: Influential Points.

Figure 5. Blue Alfalfa Aphid
Photo Credit: Hay and Forage.

Using adapted resistant varieties and good cultural practices that encourage rapid growth provide increased control for aphid infestations. Early detection is important because it allows timely insecticide application before infestations rise to damaging levels.

Diseases, such as damping off and root rots, are sometimes problems with alfalfa stand establishment. Fungicidal treatments, applied to seed or sprayed on seedlings, are effective for a short time and can help in successful stand establishment. Root rots are commonly found in soils that are wet for a prolonged period; therefore, it is important to select a site with proper drainage before seeding.

Another advantage of late summer or early fall seeding is the crop gets a jump start ahead of weeds. Soil temperatures are much higher in the late summer than in the early spring, allowing alfalfa seedlings to germinate, grow, and develop a crop canopy at a much faster rate. Because of drier conditions, diseases such as Damping off, Phytophthora root rot, and Aphanomyces root rot are much less of a concern.

Incorporating an IPM program consisting of genetic resistance to insect and disease in conjunction with crop rotation, weed control, proper site selection, and seedbed preparation are more long-lasting control measures.

Additional information on soil preparation and insect control for newly seeded alfalfa can be found in PSS-2089, Alfalfa Stand Establishment and EPP CR-7150, Alfalfa Forage Insect Control.