

AGRICULTURE AND NATURAL RESOURCE NEWS

Muskingum County

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Leafhoppers, Grasshoppers, and Beetles, Oh My!

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<https://agcrops.osu.edu/newsletter/corn-newsletter/2020-23/leafhoppers-grasshoppers-and-beetles-oh-my>

As the summer progresses we are receiving reports of insect problems often encouraged by hot, dry weather. Last week we reported on spider mites and especially if you are in an area of continued dry weather we recommend scouting your soybeans and corn <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-22/watch-spider-mites-dry-areas>.

Some areas are also reporting increases in young grasshoppers in soybeans, another insect favored by dry weather. Grasshoppers often start on field edges so early scouting may allow for an edge treatment. Japanese beetles are another common defoliator of soybean that are starting to appear. Both of these pests fall into a general defoliation measurement, and we recommend treatment if defoliation is approaching 20% on the majority of plants in post-flowering beans. Download our guide to estimating defoliation in soybean at https://aginsects.osu.edu/sites/aginsects/files/imce/Leaf%20Defoliators%20PDF_0.pdf

A weird problem being reported not just in Ohio but in parts of the Midwest as far-flung as Minnesota is the red headed flea beetle, which is being found in corn and soybean. This is a small, narrow, shiny black beetle with a red head which springs like a flea when disturbed. Feeding in soybean creates

In this issue...

Leafhoppers, Grasshoppers, and Beetles, Oh My!
Late Summer Establishment of Perennial Forages
Pasture Management in a Drought
Season Temperature Chart for Zanesville, OH



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small round holes and in corn longer narrow strips of damage. This feeding is seldom economic. In soybean follow the general defoliation threshold of 20%. Leaf feeding in corn is almost never economic, but be on the watch for silk-clipping, which is rare but possible. There are no thresholds in corn, but our Minnesota colleague Bruce Potter suggest this guideline: “flea beetles are very numerous (it is likely more than 5-10/ plant), pollination is less than 50% complete, and numerous plants have silks clipped to within 1/2 inch, you might consider an insecticide.”

Finally, earlier in the season we reported higher than usual numbers of potato leafhopper in alfalfa and encouraged stepping up scouting. In some fields third-cut alfalfa is being heavily impacted by this insect. You can review our scouting advice for this insect at <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-17/time-start-scouting-potato-leafhoppers-alfalfa>.

Late Summer Establishment of Perennial Forages

Marc Sulc

<https://agcrops.osu.edu/newsletter/corn-newsletter/2020-23/late-summer-establishment-perennial-forages>

The month of August provides the second window of opportunity for establishing perennial forage stands this year. The primary risk with late summer forage seedings is having sufficient moisture for seed germination and plant establishment, which is a significant risk this summer given the low soil moisture status across many areas.

The decision to plant or not will have to be made for each individual field, considering soil moisture and the rain forecast. Rainfall/soil moisture in the few weeks immediately after seeding is the primary factor affecting successful establishment.

No-till seeding in August is an excellent choice to conserve soil moisture for good germination. Make sure that the field surface is relatively level and smooth if you plan to no-till seed because you will have to live with any field roughness for several years of harvesting operations.

Sclerotinia crown and stem rot is a concern with no-till seedings of alfalfa in late summer and especially where clover has been present in the past. This pathogen causes white mold on alfalfa seedlings and infects plants during cooler rainy spells in late October and November. Early August plantings dramatically improve the alfalfa's ability to resist the infection. Late August seedings are very susceptible to this disease, with mid-August plantings being intermediate.

In a no-till situation, minimize competition from existing weeds by applying a glyphosate burndown before planting. Using no-till when herbicide-resistant weeds are present, such as marehail, creates a very difficult situation with no effective control options, so tillage is probably a better choice in those situations.

Post-emergence herbicide options exist for alfalfa to control late summer and fall emerging winter annual broadleaf weeds. A mid- to late fall application of Butyrac (2,4-DB), bromoxynil, Pursuit or Raptor are the primary herbicide options for winter annual broadleaf weeds. Fall application is much more effective than a spring application for control of these weeds especially if wild radish/wild turnip are in the weed mix. Pursuit and Raptor can control winter annual grasses in the fall in pure legume stands but not in a mixed alfalfa/grass planting. Consult the 2020 Ohio, Indiana, Illinois Weed Control Guide and always read the specific product label for guidelines on timing and rates before applying any product.

For conventional tillage seeding prepare a firm seedbed to ensure good seed-to-soil contact. Be aware that too much tillage depletes soil moisture and increases the risk of soil crusting. Follow the “footprint guide” that soil should be firm enough for a footprint to sink no deeper than one-half inch. Tilled seedbeds do not need a pre-plant herbicide.

Finally, keep in mind the following factors to increase establishment success.

Soil fertility and pH: The recommended soil pH for alfalfa is 6.5 to 6.8. Forage grasses and clovers should have a pH of 6.0 or above. The minimum or critical soil phosphorus level for forage legumes is 30 ppm Mehlich-3 and for grasses 20 ppm Mehlich-3. The critical soil potassium level is 120 ppm for most of our soils.

Check herbicide history of field. A summary table of herbicide rotation intervals for alfalfa and clovers is available at <http://go.osu.edu/herbrotationintervals>. Forage grasses are not included in that table, so check the labels of any herbicides applied to the field in the last 2 years for any restrictions that might exist.

Seed selection: Be sure to use high quality seed of adapted varieties and use fresh inoculum of the proper Rhizobium bacteria for legume seeds. “Common” seed (variety not stated) is usually lower yielding and not as persistent, and from our trials the savings in seed cost is lost within the first year or two through lower forage yields.

Planting date: Planting of alfalfa and other legumes should be completed between late July and mid-August in Northern Ohio and between early and late August in Southern Ohio. Most cool-season perennial grasses can be planted a little later. Check the Ohio Agronomy Guide for specific guidelines (see <http://go.osu.edu/forage-seeding-dates>).

Planter calibration: If coated seed is used, be aware that coatings can account for up to one-third of the weight of the seed. This affects the number of seeds planted in planters set to plant seed on a weight basis. Seed coatings can also dramatically alter how the seed flows through the drill, so calibrate the drill or planter with the seed to be planted.

Seed placement: The recommended seeding depth for forages is one-quarter to one-half inch deep. It is better to err on the side of planting shallow rather than too deep.

Do not harvest a new perennial forage stand this fall. The ONLY exception to this rule is perennial and Italian ryegrass plantings. Mow or harvest those grasses to a two and a half to three-inch stubble in late November to improve winter survival. Do not cut any other species in the fall, especially legumes.

Pasture Management in a Drought

Dr. David Barker

<https://u.osu.edu/beef/2020/07/08/learning-from-drought/>

Dry weather in recent weeks throughout Ohio has raised several questions about how pastures should be managed during drought. Although the experts don't all agree if this period of dry weather meets the definition of a drought (yet), there is no doubt that pasture growth will slow to zero. How should we be grazing our pastures in mid-summer??

Avoid over-grazing. Unfortunately, without rain or irrigation pastures will not grow, and close grazing will exaggerate this effect. Leaf removal by grazing (or mowing) results in a roughly similar proportion of root death. During moist conditions, roots can recover quite quickly, however, grazing during drought will reduce water uptake due to root loss. As a general rule of thumb, grazing below 2-3" will accelerate drought effects on pastures, and also, slow recovery once rain does come. Of course, optimum grazing height and management varies with pasture species. As summer progresses into fall we will increase pasture grazing heights and leave more residual, while increasing resting periods. More leaf means less water runoff.

Watch for endophyte poisoning on tall fescue and perennial ryegrass. Drought can result in a triple whammy in respect to endophyte i) ergovaline (the toxic alkaloid) levels are elevated compared to spring, ii) livestock graze nearer the base of plants where endophyte and alkaloids are the most concentrated, and iii) seedheads typically have higher alkaloid levels than leaves. It would be best to utilize other forages during this period of growth, such as annual warm-season grasses or legumes where possible. You might also consider feeding hay or grain.

De-stock pastures. Livestock pressure on pastures can be reduced by selling unproductive livestock, feeding silage/hay/grain, and finally in extreme cases you might even consider selling productive livestock. In many cases, making the hard decisions early can be the best decision in the long-run.

Be ready with nitrogen. Pastures and livestock can make compensatory growth upon relief of drought. Strategic use of N, early in the recovery from drought can re-gain some of your losses. Don't make applications too early, since volatilization losses could be high without rain to ensure incorporation of N.

Be wary of the potential for nitrate toxicity if grazing warm-season grasses during drought. More especially, grazing the first regrowth of warm season grasses that results from the first rainfall after drought can also have elevated nitrate levels. A forage nitrate test is highly recommended. The toxic limit can be lower for young stock. Most labs will offer a fast option for forage nitrate tests during summer.

Start planning for next year. The best drought strategy is to plan in advance, i.e., it's not "if" it gets dry, but "when" it gets dry.

Spring-planted crops such as brassica, grazing corn, and sorghum-sudan grass (use brown mid-rib varieties) can fill the summer slump.

Warm-season grass stands (big-bluestem and switchgrass) are not high quality, but will be more than adequate to keep livestock maintained during summer.

Use drought tolerant pasture mixes – species including alfalfa, chicory, red clover, orchardgrass and tall fescue have good drought tolerance and can help during dry summers. Perennial ryegrass, kentucky bluegrass and white clover have poor drought tolerance, and go dormant very quickly.

Surplus spring growth can reduce tiller density and summer growth potential – there is evidence that closer spring grazing can benefit summer production.

Early calving could get your calves weaned and off your property before the drought hits – dry cows on a maintenance diet have a much lower feed requirement.

Learn feed budgeting. Using a feed budgeting and monitoring system can identify feed deficits up to 3 weeks earlier than without such a system. This advance notice can give you critical time to think and plan your options before the effects of a drought actually hit.

Observe changes in your pasture. What has survived the drought? Are these the grasses and legumes you want? Does your management favor these forage species?

Maintain a sacrifice area, a heavy use pad or a paddock, which will be utilized in extreme situations while allowing pastures to re-grow. One of the best ways to weaken a stem is to overgraze during the summer through the killing freeze.

Maintain good fertility levels. Soil test and adjust pH, phosphorus, potassium and strategically apply nitrogen to support forage growth.

Consider frost-seeding legumes in February or March.

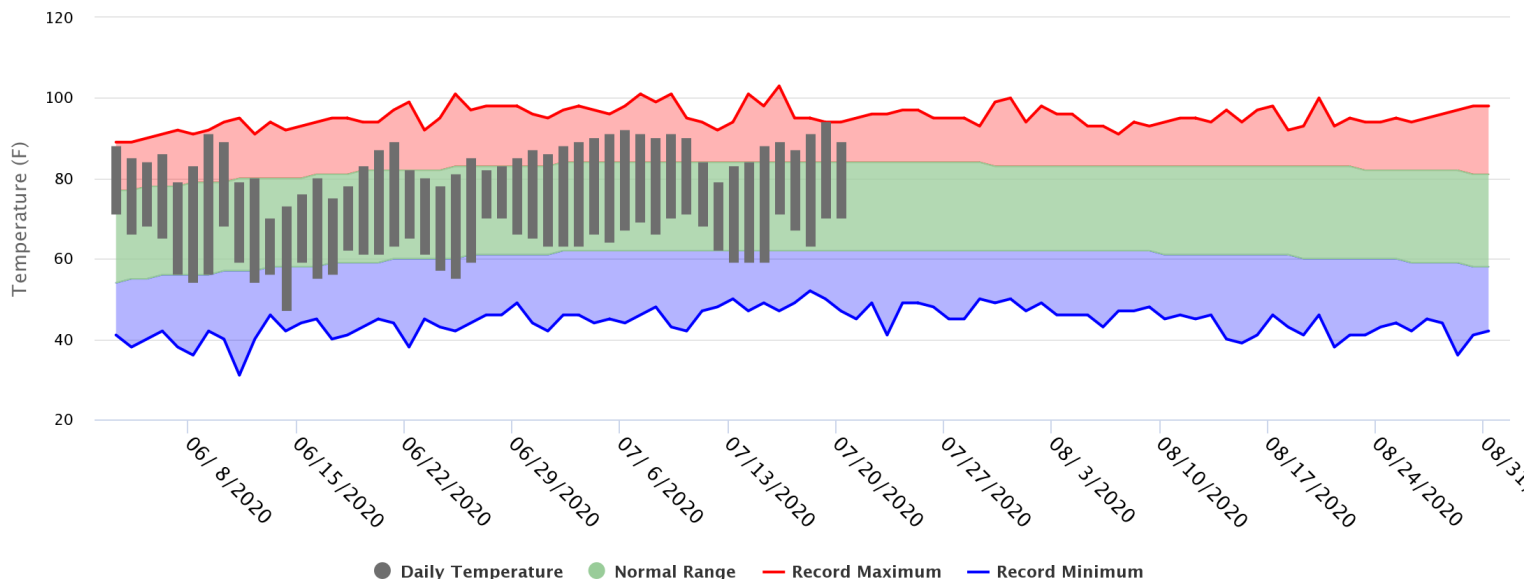
Evaluate the need for weed control. Consider carefully weed pressure and herbicide use next year. Some problem perennials may need to be controlled.

These are just a few general suggestions which we hope will improve your forage stand.

Season Temperature Chart for Zanesville, OH

Daily Temperature Normals and Extremes for ZANESVILLE MUNICIPAL AP (OH)

Midwestern Regional Climate Center



Click and drag to zoom

