

## Spring seedhead control improves turf health during summer

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The PGR Proxy (ethephon) can be applied to golf turf in early spring to help suppress seedhead formation in annual bluegrass (*Poa annua*) in May and June. This PGR needs to be applied programmatically to maximize efficacy. The first application each spring is scheduled based on temperature accumulation with growing degree days (GDDs). One or two follow-up applications are required to achieve acceptable control. An application of Proxy in late fall provides even better control when combined with spring applications.

The recent warm weather has accelerated GDD accumulations. The far southeast corner of Nebraska is now in the target zone. Much of the state is still slightly early. The mid-term climate forecast suggests that the Central Plains can expect normal to below-normal temperatures for the rest of March. This means the GDDs will accumulate more slowly and give managers more time to schedule that first Proxy application.

In addition to reducing seedhead formation, annual bluegrass treated with Proxy in the spring has improved health during the summer. This happens because sugars and nutrients are not wasted to produce seedheads and the life-cycle of this winter annual weed is disrupted. Look at these research plots from Jim Ager GC in summer of 2018. The old Kentucky bluegrass/annual bluegrass fairways looked terrible after the peak seedhead flush and onset of intense heat. Plots treated with ethephon and Anuew (prohexadione-Ca) were remarkably better than the non-treated control.



**Tips to control seedheads:**

- Make the first application of ethephon (Proxy) when your location is in the green shading of GDDTracker.net. This occurs at **220-500 GDD (base 32F)** since February 15<sup>th</sup>. For the first application, ethephon can be applied by itself at 5 fl oz/1000 ft<sup>2</sup>.
- One or two follow-up applications are typically needed to gain acceptable control. Those applications should occur **200-250 GDD (base 0C)** after the first application. Note the different temperature scale for the follow up applications. GreenKeeper can track these follow-up ethephon applications for turf managers.
- Class A PGRs add safety to ethephon applications. Historically, trinexapac-ethyl (Primo Maxx) has been used for this application. Our research shows that prohexadione-Ca (Anuew) can also be effective. Other have used colorants to mask any potential phytotoxicity.
- A late fall application of ethephon can dramatically improve seed head control when combined with traditional spring application.
- It's still common to have some seedheads later this spring. These applications usually suppress, but do not completely eliminate seedheads. Remember, there would be many more seedheads without these PGR applications. Use a check plot to confirm your program is working.

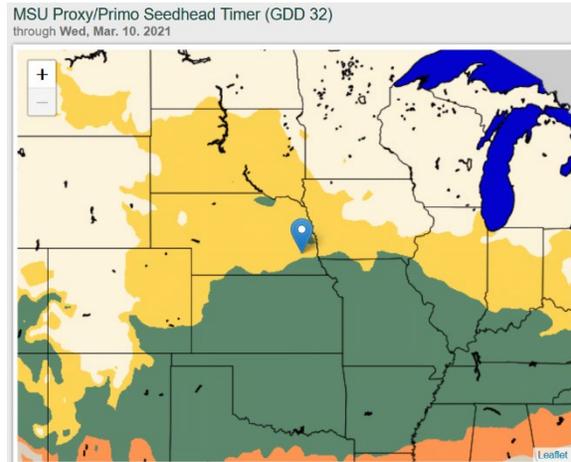


Figure 2. Michigan State University's GDDTracker.net is a great resource to visualize GDD progression for several spring applications including Proxy.

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