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Gazing in the Grass

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Above normal air temperatures are certainly accelerating green up. Soil temperatures are now into the mid-50's in the metropolitan New York Area. Conditions are close to normal for the 15 year average and the year so far is 1 week ahead of 2018. Rainfall was adequate across much of the region, however some drying has occurred especially in western NY that was about to receive a drought condition classification. It appears however with the widespread rainfall expected this coming week, very few dry areas will persist and cooler temps are expected by midweek.

The cool (temps expected in the 30's and 40's) and wet conditions (>1" expected over 48 hrs) will be ideal for Microdochium Patch (AKA Pink Snow Mold, Fusarium patch, etc.) especially on the most susceptible perennial ryegrasses and annual bluegrass. Predictive modeling for Microdochium Patch from Dwyer (2004) suggests temps of 46-62F with greater than 20 hrs of 90 percent humidity. Therefore, consider chemical intervention on susceptible high value turf.

A resistant species (fine fescue, Kentucky bluegrass) on a well drained surface, that is not overly lush with growth will minimize the conditions conducive to the pathogen. Interestingly, the image above demonstrates the Oregon State University research elucidating the influence of rolling on Microdochium patch of annual bluegrass putting surfaces. Additional work found phosphites (AKA Alliette, Signature, etc..) and Civitas (Pre-Mixed) combined with rolling are as effective as the best traditional fungicide programs. The research also found that Civitas application should be suspended during periods of less than active growth, especially under rolling when turf thinned dramatically.

The University of Kentucky publication Chemical Control of Turfgrass Diseases (<http://www2.ca.uky.edu/agcomm/pubs/ppa/ppa1/ppa1.pdf>) shows efficacy rating of 4 for non-Chlorothalonil options such as Fame (fluoaxastrobin)(not on LI), Medallion (fludioxinil), and Tartan (trifloxystrobin + triadimefon). Fame C+ includes chlorothalonil.

Rolled



Not Rolled



Influence of rolling on Microdochium Patch
Oregon State University

Spring weed activity is evident in

the landscape with some white clover, chickweed and Lesser Celandine providing a contrast to the still slow greening grassy lawns and parks. Thinking of post emergence broadleaf weed management this Spring, keep in mind that the Spring is generally not considered to be an ideal time for herbicide applications. Late summer and early Fall are considered to be ideal timing of post emergence broadleaf herbicides for persistent perennial weeds. Still, there are predictive Growing Degree Day models available for Spring dandelion control with products containing 2,4-D. The model developed in the Midwest is available on our FORECAST website (<http://www.nrcc.cornell.edu/industry/grass/html/>).



Patch of Lesser Celandine in Flower

The data-driven approach to Spring weed control separating formulations suggest that applications of 2,4-D + 2,4-DP **ester** applied to Kentucky bluegrass (*Poa pratensis* L.) controlled less than 60% of the dandelions present when fewer than 130 base 50°F degree days (since March 1) had accumulated. Acceptable control (>80%) was achieved when the degree day accumulation exceeded 145. For control with 2,4-D + 2,4-DP **amine** unacceptable control occurred with accumulation of less than 150 degree days, while acceptable control was indicated at degree day accumulations above 180.

Public scrutiny of pesticide use has increased recently with the awarding of damages in the \$10's



of millions for persons exposed to Round-up (glyphosate). Regular herbicide use could require additional justification for effectiveness and cost. A good weed control program begins with a dense turf. If lawns have weed infestations at this point of the season greater than 50 percent, a full renovation would be required. Of course this assumes a thorough site assessment has been conducted and identified issues with light, soil, and drainage that require remedy.

If lawns are less than 50 percent weeds and have 15 percent bare ground, then an aggressive interseeding program should be initiated to capitalize on good seed establishment conditions. If weeds begin to emerge, there are a few post-emergence herbicide options for the seedbed, including quinchlorac and mesotrione. Sod patching can be useful also if there are large areas that can be repaired, but be sure to have irrigation available if no rain expected immediately after transplanting.

Finally, the use of high rates of chelated iron, available in products such as Feista, have been shown to provide excellent postemergence control of many broadleaf weeds. This technology has been in use in Ontario, Canada for many years since the “Cosmetic Pesticide Ban” from 2010 that removed ALL synthetic pesticides from the lawn care market. The image shows the injury from high rates of iron to dandelion (left) and the resulting “green-up” that occurs after application (right). ▲

