

Summer Patch site survey form

THIS SITE SURVEY FORM AND REFERENCE GUIDE are designed to help turf managers to formulate a effective, long-term plan of action. The act of conducting the survey, combined with the results of it, will give you a better feel for your site and a clearer picture of the combinations of adjustments and actions you may need to make

to ensure that this site won't continue to be a problem.

Keep in mind that a site survey will only give you data for factors that are observable at the time that you do the survey. Additional factors may have been active earlier, and still other factors may come into play at a later date. So re-survey problem sites at regular intervals.

A Summer Patch Survey Quick Reference Guide

▪ Strong determinant factors

- **SUN AND SHADE** sunny, partial shade, or full shade
Summer Patch is usually a problem in full sun or partially shaded sites. If the area is moderately shady, then the problem is probably not Summer Patch. Look at Pythium Blight, Pythium root rot or Necrotic ring spot as the more likely problem.
- **WATER FLOW** Normal, saturated, etc.
Areas that are subjected to periodic saturation, because of drainage flow through root zone are prime sites for Summer Patch and Pythium Blight.

▪ Moderate determinant factors

- **GRADE** Heavily sloped, level, concave, etc.
Heavily sloped sites are less likely to have Summer Patch than flat or concave grades. Frequently areas at the bottom of slopes have a problem with Summer Patch.
- **ORIENTATION** Facing north, south, east, or west
South and west facing sites are more likely to have a problem than east facing sites. North facing sites usually have little problems with Summer Patch.
- **SPECIES** Bluegrasses, bentgrasses, and fine fescues are particularly vulnerable to Summer Patch.
- **AIR FLOW** Sites with good air flow will dry out faster than sites with poor air circulation. Sites with poor air flow are also very susceptible to Pythium diseases, Necrotic ring spot and a myriad of foliar diseases.

▪ Weak determinant factors

Cultural practices

- **CUTTING HEIGHT** Frequency & height of cut
Raise the cutting height to 3" or more. If this is not possible, increase the time between cuttings.
- **WATERING** Frequency & depth
On tall-cut turf, water only deeply and infrequently. If you must water often, increase the depth of watering and modify the schedule after rainfall. Use wetting agents to eliminate saturated conditions.
- **FERTILIZER** Urea, sulfur-coated or methylene ureas
Avoid using quick release fertilizers. Use release N sources, such as methylene ureas, urea formaldehyde, IBDU or organics. In hot weather use more potassium and iron and reduce nitrogen applications.
- **CULTIVATION** Coring, verticutting, etc.
Coring and verticutting areas can be beneficial depending on the site.
- **AMENDMENTS** Top dressing, etc.
Avoid making top dressing applications with high humus materials or any materials that can develop a soil interface problem.
- **SOIL CHEMISTRY** Monitor the soil chemistry regularly and maintain high Potassium and Calcium levels.

Co-factors

- **COMPACTION** Physical & chemical
Check for compaction, both physical and chemical. High traffic should be reduced or eliminated. Core or verticut where possible, use wetting agents. Chemical compaction is a sign of wet soils, high magnesium/low calcium levels or particle shifting. Check soil chemistry and use wetting agents.
- **THATCH** Depth, condition, speed of accumulation
Dethatch where possible, aerobize to foster decomposition, make regular light limestone applications to keep thatch pH at 6.5. Renovate the area and remove the thatch, where possible.
- **LAYERING** Soil interface, organic matter, etc.
Core, deep core or use wetting agents.
- **PERCOLATION**
Use wetting agents to help flush water out of the root zone.
- **OTHER DISEASES**
Control or prevent other root damaging fungi and control foliar diseases as they occur. Avoid prolonged use of broad spectrum systemic fungicides.
- **OTHER**
Keep turf in the best condition possible to promote recovery after an outbreak.

Site history as a guide for future actions

ONCE YOU HAVE INTERPRETED THE SITE SURVEY DATA, check the history of the site to see if this Summer Patch damage is new to the area, a growing recent problem, or a chronic ongoing problem. The site history will give an indication whether this damage is a problem than can be dealt with easily, be solved with changes in practices and applications, or will require major change of direction to be successful:

- IF THIS CURRENT OUTBREAK is the first occurrence of Summer Patch at this site, then a curative fungicide application and a fertilization to help the site recover may be all that you need.
- IF THIS HAS BEEN A PROBLEM THAT HAS OCCURRED before and is increasing, then curative and rehabilitative measures should be augmented with cultural changes, such as mowing, watering, fertilizer changes, wetting agents, variety changes.
- IF, ON THE OTHER HAND, THIS SITE HAS HAD A CHRONIC Summer Patch problem, then preventive fungicide applications starting two or three months prior to the normal onset of symptoms should be started. Alternating effective fungicides should be standard. Keep in mind that despite your best efforts intense short-term weather and rainfall patterns can overwhelm even the best plans. So be prepared to quickly make curative applications when needed.

Finally, change the species of the predominate turfgrass to the ryegrasses, tall fescues or known resistant bluegrass varieties or make whatever changes that time and money will allow to make this problem Summer Patch site a thing of the past. ■



SUMMER PATCH SURVEY

COMPANY NAME _____

NAME OF SITE _____ APPROXIMATE AREA: _____ ft. x _____ ft.

SURVEYED BY _____ DATE OF SURVEY ____/____/____

Type of information	Factors FAVORING Summer Patch	Factors AGAINST Summer Patch
Strong determinant factors:		
• SUN AND SHADE • WATER FLOW THROUGH AREA	☐ Full sun ☐ Periodic saturation	☐ Heavy shade ☐ Dry
Moderate determinant factors:		
• GRADE • SITE ORIENTATION • PREDOMINATE TURF SP. AND VAR. • AIR FLOW • OTHER IMPORTANT CONDITIONS	☐ Flat ☐ concave ☐ South ☐ west ☐ Bluegrass ☐ bentgrass ☐ f. fescue ☐ Poor ☐ Hot, wet weather	☐ Heavily sloped ☐ North ☐ T. fescue ☐ ryegrass ☐ Good ☐ Cool, dry weather
Weak determinant factors:		
Cultural practices		
• MOWING • WATERING • FERTILIZER • CULTIVATION PRACTICES • AMENDMENTS • SOIL CHEMISTRY	☐ Less than 3"(78mm) high ☐ Frequent and shallow ☐ Urea based ☐ None ☐ High humus dressing ☐ Low potassium & calcium	☐ 3"(78mm) or higher ☐ Infrequent and deep ☐ Slow release N ☐ Coring, verticutting ☐ Low humus dressing ☐ High potassium & calcium
Co-factors		
• COMPACTION • THATCH • LAYERING • PERCOLATION OF WATER • OTHER FUNGAL INFECTIONS • OTHER CO-FACTORS THAT MAY AFFECT THE HEALTH OF THE TURF	☐ High traffic ☐ Greater than 1/2"(13mm) ☐ One or more ☐ Slow ☐ Prolonged use of broad spectrum systemic fung. ☐ _____	☐ Low traffic ☐ Less than 1/2"(13mm) ☐ Uniform ☐ Normal ☐ Occasional use of broad spectrum systemic fung. ☐ _____
Site history: ☐ Chronic ☐ Occurred before and increasing ☐ First occurrence		

Conclusions: _____

Planned actions:

• CURRENT YEAR _____

• NEXT YEAR OUT _____