

NTSI 2026

Case Studies Overview



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Overview

The Case Study section of the Turfgrass Science Invitational is designed to test the reasoning and critical thinking skills of the participants in their preparation to demonstrate the higher level thinking needed to be successful in the golf course maintenance industry.

Case Study presentations should be carried out in an area that provides participants a safe space to communicate as a team, sketch out ideas, and rehearse a pitch to be presented to judges during the invitational. Group planning areas may be ideal for logistical considerations based on facility space availability. Individual areas for presentation to limit interference with other presenting teams should be a priority, and given that the space needs to only fit the team members and judges, small conference rooms may provide an ideal space for presenting and review.

- A. Participants will be given a prompt for one of the four available Case Study challenges that include:
 - a. Best Management Practices
 - b. Industry Challenges
 - c. Operations
 - d. Human Relations
- B. The judges will use the provided rubrics to evaluate the presentation and responses to the questions.
- C. Tie-breaking protocol will not be necessary given the Case Studies portion combining with the Practicums and Knowledge Check for an overall score.



Contest Outline

1. Participants will be guided to a holding room that will serve as a waiting space for 90 minutes while the Case Studies are prepped and delivered.
2. Given the number of competing teams, the group will be split into _____ shifts
3. The teams in shift one will be escorted from the holding room to the prep room
4. Teams in shift one will be given their Case Study challenge and be provided 20 minutes to plan their oral presentation in their response to the challenge.
5. Once 20 minutes has elapsed, teams will be escorted to the presentation rooms and once placed in the presentation rooms, the teams in shift two will be escorted from the holding room to the prep room.
6. Presenting teams will be allowed 5 minutes to present their response to the challenge
7. The judges will be given 5 minutes to ask clarifying questions in response to the presentation.
8. Once time has elapsed, the competing teams will be escorted back to the holding room
9. Teams in shift ___ will be escorted from the prep room to the presentation room when their 20 minutes elapses and once they begin their presentation, teams in shift ___ will be escorted to the prep room to begin their competition.
10. The process will continue based on available rooms and number of teams.

Contest Materials

Competing teams will be allowed to bring in the following materials to the holding and preparation rooms:

1. 4-three ring binders with printed materials from reputable sources related to turfgrass science

Competing teams will be given the following materials to assist in the development and presentation of the case study challenge solution:

- | | |
|---------------------------------------|-----------------|
| 1. Pencils | 6. Calculator |
| 2. Pens | 7. Ruler |
| 3. Scratch paper | 8. Tape |
| 4. Assorted colored markers | 9. Sticky Notes |
| 5. Post-It Easel Pads (1 per 3 teams) | 10. Index cards |



Case Study Sample

Brief:

Best Management Practices (100 points, 400 team points)

Students will develop a solution to a case study problem based on turfgrass facility-specific Best Management Practices (BMP's)

- Each team will be allowed 30 minutes to complete this phase (20 minutes of discussion and planning, 5 minutes for delivery, 5 minutes for questions).
- Participating teams will have access to supplies for capturing ideas and drawing out their plans for the presentation.
- All team members must participate in the delivery of the proposal.
- Delivery of the proposal will be carried out solely by oral presentation.

-Managing Moisture in the Mountains-

Wayne Harbour Golf Club is located in a sub-tropical rain forest in the mountains of Western North Carolina. Designed by a famous architect and recognized as an upscale, private club, Wayne Harbour GC is considered one of the greatest golf courses in the United States. They have a problem however that is beginning to catch up with the maintenance of the course...

The average rainfall in this area is between 80 and 100 inches annually. Heavy clay soils that drain poorly are found throughout the golf course and the original drainage system cannot handle the excessive annual rainfall that seems to be growing more excessive every year. Even small rain events require closing the golf course for extended periods of time. In such a wet climate, it is essential to improve the golf course for playability and turf health, as well as for the enjoyment of the members. A few of those members on the board responsible for chairing activities by the maintenance team have begun to talk about the excessive moisture gathering around the course and have suggested that a “change at the top” might be necessary.



Your challenge is to develop a 5-minute verbal proposal that outlines the primary challenge, a connection to modern agronomic best management practices, and a discussion illustrating an appropriate solution for the current drainage issues. Successful teams will provide a solution for the current challenge as well as future challenges that might arise based on the underlying environmental pressures.

Equipment Required:

- Pencils
- Pens
- Scratch paper
- Assorted colored markers
- Post-It Easel Pads (1 per 3 teams)
- Calculator
- Ruler
- Tape
- Sticky Notes
- Index cards

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Grading:

Item	Superior Evidence of Success (5-4)	Satisfactory Evidence of Success (3-2)	Unsatisfactory Evidence of Success (1-0)	Multiplier	Points
Outline of Challenge	Team provides complete insight into process of pulling out the appropriate primary challenge	Team provides insight into process of pulling out the appropriate primary challenge	Team provides little insight into process of pulling out a challenge that may or may not be the primary challenge	x2	
Connection to Industry Knowledge	Team is able to connect the challenge to multiple peer reviewed/industry recognized agronomic concepts	Team is able to connect the challenge to peer reviewed/industry recognized agronomic concepts	Team is unable to connect the challenge to any valid peer reviewed/industry recognized agronomic concepts	x2	
Discussion Development	Team is able to describe a concise and complete plan that addresses the primary agronomic challenge	Team is able to describe a plan that addresses the primary agronomic challenge	Team is unable to describe a plan that addresses the primary agronomic challenge and lacks focus/addresses an inappropriate challenge	x2	
Reflection on Case	Team answers post-presentation questions completely with clear indication of preparation	Team answers post-presentation questions adequately with some indication of preparation	Team fails to answer post-presentation questions adequately and there is no indication of preparation		
Professionalism	All team members participate in all phases of the planning and delivery. Presentation exhibits indication of experience with public speaking	Most team members participate in all phases of the planning and delivery. Presentation exhibits some experience with public speaking	Less than half of the team members participate in the planning and delivery. Presentation exhibits little experience with public speaking		
Total					



Case Study Topic Areas

Case Study A [BMP's]

Best Management Practices (100 points, 400 team points)

Students will develop a solution to a case study problem based on turfgrass facility-specific Best Management Practices (BMP's). This year, the theme is the influence of extreme weather on a lacrosse stadium complex's ability to handle a full season of play.

Case Study B [Industry]

Industry Challenges (100 points, 400 team points)

Students will develop a solution to a case study problem based on a current challenge in the turfgrass industry. This year, the theme is the decision to install synthetic or natural turf surfaces for a new high school complex based on the balance between environmental stewardship and playability.

Case Study C [Ops]

Operations (100 points, 400 team points)

Students will develop a solution to a case study challenge based on operations management during the hosting of an event. This year, the theme is the plan a field manager needs to develop to prepare for a concert and lead recovery afterwards in the leadup to the football season in the following fall.

Case Study D [HR]

Human Relations (100 points, 400 team points)

Students will develop a solution to a case study problem based on a human relations situation in the turfgrass industry. This year, the theme is conflict resolution in a parks and recreation department between employees in different generations with unique challenges.



Case Study Scoring Sheet

TEAM:

Case Study Letter:

Item	Superior Evidence of Success (5-4)	Satisfactory Evidence of Success (3-2)	Unsatisfactory Evidence of Success (1-0)	Multiplier	Points
Outline of Challenge				x2	
Connection to Industry Knowledge				x2	
Discussion Development				x2	
Reflection on Case					
Professionalism					
Total					

Notes for Feedback



References

CASE STUDY A

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CASE STUDY C

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