

A Brief History and Guide to Turfgrass Management on Sports Fields

A Senior Project
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Bachelor of Science

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Introduction and Background

Throughout history, people in most parts of the world have been playing sports on outdoor playing surfaces. Prior to the late 1440s, outdoor games were played on large expanses of uncared-for land which included large undulations, streams, and various forms of vegetation. The nature of these playing surfaces made it dangerous for people participating in the games being played. However, in the late 1440s, people in Great Britain began to mark off pastureland which was grazed by sheep for playing surfaces. Because of this, the British came to be known as the pioneers of the development of grass playing surfaces (Beard, 2012). The marked off, grazed pastureland popularized by the British provided players with more controlled, safer playing surfaces compared to the expanses utilized for sport prior to the late 1440s.

From the late 1440s to the early 1700s, grazed pastures were the predominant outdoor playing surfaces. However, in the early 1700s, the most rudimentary forms of turfgrass management strictly for sports fields were beginning to be utilized. Instead of marking off pastureland, people were establishing fields strictly for sport use. At that time, the use of cultural practices such as sodding, rolling, mowing, and aerating were becoming popularized by turfgrass managers (Beard, 2012). By using the new cultural practices, fields were developed to be sport specific and they improved the consistency of play as well as the safety of participants.

Today, turfgrass managers are faced with the challenge of maintaining one of “the most complex landscapes to manage” (Shattuck, 1999). It is among the most difficult landscapes to manage because it endures more wear and tear from usage compared to other cropping and landscape systems. To ensure that playing surfaces will tolerate heavy usage, turf managers must be meticulous about their operations which include mowing, irrigating, fertilizing, aerating, and over seeding (Murphy, Park, 2014). By utilizing said practices timely and accurately, managers can produce a playing surface that is visually appealing to spectators and players. More importantly, however, they will be providing “the stable, resilient turf surface that provides the footing needed for athletic play and the cushion to protect athletes against injury” (Murphy, Park, 2014).

The author had the opportunity to work as the turf management assistant for the California Polytechnic State University, San Luis Obispo, baseball team for two years. In those two years, he was responsible for hand mowing the infield and foul territory as well as hand watering the field. He assisted in the aeration of the field, over seeding, and fertilizing the field.

The purpose of this senior project is to provide future Cal Poly Baseball student assistants with a guide and schedule that outlines the tasks to be done weekly during baseball season as well as during the off-season. Along with the schedule, techniques for effective mowing and watering will be included. Lastly, a history of the industry and the importance of turf management will be included. By providing a guide, future student assistants will have access to job-specific information that will allow them to be effective Cal Poly Baseball turf assistants.

Methodology

Sports turfgrass management has evolved greatly since its humble beginnings in the late 1440s. It has since become a booming profession that employed 512,133 in 2017 (Census Bureau, 2017). The increase in turfgrass managers resulted from an increased demand from sports teams and facilities for consistent, visually appealing, safer playing surfaces. The objective of this study was to collect information on the history and practices associated with turfgrass management in order to provide a guide to people participating in the industry, specifically at Cal Poly.

To complete a manual that provided the history and maintenance of turfgrass, history and management strategies were researched that dealt with all sports fields. Next, turfgrass guides and manuals were studied in order to provide similarities and differences between the management of different grasses and sports fields. Following that, the information from various guides and manuals was used to cross reference outside management practices with those used at the Cal Poly baseball field.

Following research, the Cal Poly Baseball Turfgrass Management Guide was developed with the use of Microsoft word software. The manual was edited and reviewed with the help of the Cal Poly Baseball coaching staff to ensure all strategies were accurately represented. Following revision, the manual was updated using suggested edits then was finally delivered to the coaching staff for future use.

Results

The finished pamphlet is broken into three sections: the history and evolution of turfgrass management, the responsibilities of a Cal Poly turf assistant, and the schedule of a turfgrass assistant for the team. The sections serve to provide the reader with a brief overview of the industry and to provide the reader with a management plan specific to the Cal Poly baseball field.

All information obtained for the finished guide was derived from online databases and experience within the industry. The finished product was provided via hard copy and electronically to the Cal Poly baseball staff to be provided to future student employees serving as turf management assistants.

Discussion

In the future, this guide will be used by student assistants serving the same role as the author for the Cal Poly baseball team. It is possible that revisions may need to be made in order to adapt to potential management strategies. If this project were to be recreated, more discussion with professionals in the industry would serve to bolster the credibility. There are basic guidelines when it comes to turf management, but each person in the industry has their own way of doing certain things. By learning more strategies of management, the guide would serve to offer the team with new ideas to improve the playing surface and sustainability of the field.

Citations

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