

State of the UNL/IANR Turfgrass Science Program

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The Turfgrass Science Program has a rich and nearly 50-year history at the University of Nebraska-Lincoln. Starting with the extension turfgrass specialist hire in 1975, followed soon thereafter with a turfgrass breeder, momentum began to grow, resulting in faculty from Plant Pathology, Entomology and Biological Systems Engineering (formally known as Agricultural Engineering) enthusiastically joining the team to create a highly productive and nationally recognized program. Critical to that growth and development was the creation of the Nebraska Turfgrass Foundation (NTF, now the Nebraska Turfgrass Association (NTA)) in 1979/1980 in a visionary collaborative effort of many, primarily driven by the UNL extension specialist, Dr. Bob Shearman and the golf course superintendent at the Country Club of Lincoln, Joe Hadwick. The NTF was the first organization in Nebraska dedicated to turfgrass improvement across all aspects of the industry. The Nebraska Golf Course Superintendents Association was started in 1943 and was specific to the major segment in the turfgrass industry at the time, golf course management. By 1991, the program at UNL involved 5.35 FTE in faculty positions with turfgrass specific responsibility, with a corresponding dedicated staff and students targeting turfgrass education, research, and outreach in Nebraska. This team additionally collaborated with faculty from Agronomy, Biochemistry, Physics, and Chemistry, and the USDA. Strong industry partnerships were evident and have continued to this day.

Major extension efforts include the annual Nebraska Turfgrass Conference, the premier educational offering for turfgrass professionals in the region, sponsored by the NTA. More than 500 participants brave January weather to attend in Omaha. The event generates more than \$100,000 in net income to support the NTA operations and turfgrass research at UNL. The NTA has been a longstanding contributor to the program with monetary donations totaling \$1,425,000 over the last 25 years. The Nebraska Turfgrass Research Field Day was held annually pre Covid and has regained momentum since then. Attendance currently averages approximately 100-150.

Graduate student recruitment, retention and successful completion has been the emphasis of the Turfgrass Science program since its inception. Graduate student research has been the foundation for regional and national information that has significantly impacted turfgrass management and resiliency. According to data provided by UNL Graduate studies, since 2000, faculty have effectively advised and completed 19 MS students and 6 PhD students. Data prior to that is not digital and is estimated at 28 additional MS and 11 PhD students. Notable career paths include 10 Full Professors; 4 Associate Professors; 1 department student advisor at UNL; 1 department head and 1 dean at US and foreign institutions. Industry employment includes 3 research directors; 1 COOP manager; 1 recently

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retired agronomist overseeing 28 golf courses; 2 regional technical representatives; and 2 municipal park managers.

Undergraduate enrollment in the turfgrass program has ranged from 13-52 and is currently at 21. Students are in demand and the program has students who continued to graduate school and successfully completed MS and PhD degrees or moved to positions as golf course superintendent or athletic field managers. Many remained in Nebraska at golf courses, sports field venues and lawn care operations, while some pursued similar opportunities nationally and internationally.

Turfgrass faculty have been recognized for excellence by scientific societies including, but not limited to, 3 Fellows in both the American Society of Agronomy (ASA) and Crop Science Society of America (CSSA); 2 CSSA Fred Grau Turfgrass Science awardees; 1 CSSA Extension Excellence recipient; and 2 American Association for the Advancement of Science Fellows (AAAS). Evidence of leadership were present both locally with 3 UNL Head and Director appointments (Agronomy, Agronomy and Horticulture and Professional Golf Management) and national/internationally with 2 Crop Science Society of America Presidents. External to UNL and academic societies, faculty and staff were acknowledged for significant contributions to stakeholder organizations including 5 Nebraska Turfgrass Foundation/Association (NTA) Presidential Awards of Merit; 4 NTA Distinguished Service Awards; 3 Outstanding Educator Awards from the Nebraska Professional Lawncare Association (NPLCA) and 1 Exceptional Service Award from Nebraska Golf Course Superintendents Association (NGCSA). National/International stakeholder recognitions included The Colonel John Morley Distinguished Service Award from the Golf Course Superintendents Association of America (GCSAA) and two faculty received the United States Golf Association (USGA) Green Section Research Award.

From 2000-2020, NuGrant, which provides UNL financial oversight, has a record of \$7,243,046 in competitive grant funding received by turfgrass faculty, with approximately \$3.8 million attributable to turf centric projects. Unfortunately, these data are not available through NuGrant for funds received prior to 2000 and are estimated at an additional \$2.5 million. Royalty return income from the turfgrass breeding program is \$1,287,505 up to 2020 for all released and marketed cultivars. It is difficult to provide economic estimates of value of 'gifts in kind' which include generous contributions from regional distributors and national suppliers of equipment, fertilizer, and plant protectants. Conservative estimates indicate a value of approximately six figures annually.

With the relatively recent loss of 3 faculty to industry positions, and the 2024 planned retirement of the remaining tenure track extension specialist, the program is in a precarious position. The projected loss in extension capacity has been addressed by a department-based extension educator hired in 2023. This would mirror similar turfgrass program adjustments at the University of Minnesota, Purdue University and Texas A&M. From 5.35 FTE in 1991 to a projected FTE of 1.9 FTE in 2024 is unsettling. Currently the program can meet the immediate teaching needs with reassignment of existing faculty for a short-term solution. What is problematic is the loss in research capacity. In a perfect world and at the programs current and projected faculty capacity the addition of a new turf centric faculty position as soon as budgetarily possible focused on digital ag or similar need identified in the

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department, which is competitive for external funding and would collaborate with existing faculty across multiple departments is a desirable outcome. This position could be 60 research 40 teaching position to ensure continuation of existing classes and restore lost research capacity. It is unrealistic to assume the program will ever be at the faculty level it was in 1991. The proposed hire would bring the dedicated turfgrass faculty FTE to three FTE. You might be wondering why this article provides this information. A “call to arms” is defined as: 1. *a summons to engage in active hostilities* 2. *a summons, invitation, or appeal to undertake a particular course of action*. I invite you to thoughtfully consider the provided information as *a summons, invitation, or appeal to undertake a particular course of action*. Decisions to hire faculty at UNL can, and should be, influenced by affected stakeholders, such as organizations like the NTA, the NGCSA and the recently resurrected Nebraska Sports Field Management Association (formally NESTMA) and individuals with a vested interest in turfgrass improvement in Nebraska. If interested, an email of support indicating the need for an additional faculty position should be sent to:

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With copies to:

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Feel free to use any of the information provided to make a case for continued faculty support for turfgrass at UNL. Be respectful and supportive of past efforts to support the program by upper administration. Any questions, feel free to contact me at rgaussoin1@unl.edu.