



Paul R. Mugan, Biology teacher
Waverly Shell Rock High School
2019 extern at UNI Tallgrass
Prairie Center (TPC)

Part I: Overview of Workplace

UNI TPC Mission: Restoring native vegetation for the benefit of society and the environment, with research, education and technology.

The Center was established at UNI in 1999 by Dr. Daryl Smith, Dr. Laura Jackson became director in 2013. The TPC is 65 acres of campus for native seed production and whose purpose is to support Research and Restoration, Integrated Roadside Vegetation Management (IRVM), Plant Materials, and Prairie on Farms.

Part II: Workplace Focus

The Tallgrass Prairie Center researches and practices cultivation techniques for the restoration of native prairie grasses. This knowledge is then shared with those in both the public and private sectors that are working to restore prairies in pollinator patches, roadsides, farmland strips and CRP.

Part III: Introduce the Problem

After the construction of the Waverly Shell Rock Middle School the approximately 3 acre area just North of the new building was seeded with a general prairie mix and a few trees were planted. After which, this plot of land was left alone as major stakeholders in the restoration moved on or retired. The goal of my project is to begin the work necessary to restore this land to a native Iowa prairie.

Part IV: Background

In order to have a positive effect on the diversity of the WSR Middle School prairie, it would be beneficial to have an ability to recognize grass and flower species by sight. It would also be necessary to know how to collect, preserve and harden prairie plant seeds. In order to help me with this project, the TPC staff needed to know the background of the WSR Middle School prairie, the types of grasses and forbs that and currently growing there and also the types of soils involved.

Needed links:
[WSR Middle School’s current prairie condition](#)
[The effect of frequent mowing on restoring prairies](#)
[Enhancement of non native cool season grass stands](#)

Part V: Workplace Solution

[A discussion with Dr. Justin Meissen](#)
Dr. Meissen: Options when restoring a prairie include:
Overseeding, cultipacking or drilling seed
Regular mowing with seeding
A Mow / spray rotation to get to bare dirt then seed.
Given the MS project. The suggestion is to think long term proceeding in ½ acre chunks with a comparison of different treatments as an investigation.

Part VI: Education Pathways

There is a full spectrum of educational levels at the Tallgrass Prairie Center. PhD’s, Master's degrees are those that are full time employees. Graduate and undergraduate students can earn college credit and or stipends working on various projects. There are also Americorps volunteers who regularly contribute manual labor.