#### **Current Operations**

The USDA has 360 head of dairy cattle. They are using the land right now to grow birdsfoot trefoil in a research experiment using birdsfoot trefoil in forage in relation to nutrient absorption and protein content in the cattle. It's a legume that creates tannins, which prevent proteins from becoming de-natured quickly in the cow's rumen. This aids in preventing cattle from bloating. They are experimenting with high and low lines in the tannins, and have about 15 acres of each currently growing.

### Experimental Plots, and Other Research

While experimenting with forage crops is a primary function of Dairy Forage, they use the land at the BAAP for other purposes as well. There exist about 50 plots that are each 300 sq. ft. in area (10' × 30'). These 50 plots are being used for soil agronomic research.

There is research being done on how pastureland can be incorporated into the surrounding environment and ecology, as well as addressing safety concerns. There is a 64 acre farm facility located near the border of the southeast corner of Badger outside the designated area Construction on this farm began in 1979 and was completed in 1980.



#### **Cultural Sensitivity**

USDA and Dairy Forage had an archeological survey performed this past summer (2005). The purpose of the survey was to determine the possible existence, and prevalence of historical/cultural artifacts belonging to the Ho-Chunk, and their predecessors. This survey produced no findings of historical/cultural value for areas being utilized by Dairy Forage.

# Where Does Dairy Forage Go From Here?

One of the principle ongoing research questions that is being looked at for future trials is how open wildlife areas can be maintained while optimizing agricultural output.



For more information, see Powder, People and Place: Badger Ordnance Works and the Sauk Prairie by Michael J. Goc

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## Sauk Prairie's Agricultural Legacy



Powder storage area, 1953

Powder storage was a critical area within the BAAP; careful planning placed the structures at appropriate distances from each other, to insure that a potential mishap did not spread in a chain reaction throughout the plant. The powder storage area is now within the portion of the BAAP owned and operated by the United States Department of Agriculture (USDA).

#### From Pre-history to Settlement Evolution of the Prairie

Prairie was a product of millenia of human interactions with the natural world. Fire was the prevalent mode of interaction, and the primary means by which the ancient indigenous peoples of the area shaped their surrounding environment. Approximately a millenia ago, tribes of the mound builder cultures performed fire supported agriculture on the Sauk Prairie and surroundings. The burnings served to clear land, enhance the growth of native berries and other edible plants, support the prosperity of deer and other prey animals, and played a significant role in the cultures' spiritual growth.

The Ho-Chunk, who lay claim to the Mound Builders legacy, inhabited portions of the Fox River Valley all the way up to what is now Green Bay. Nonetheless, they exerted their influence on the Sauk Prairie during numerous periods throughout the 2nd millenium a.d. The key to the sustainability of the prairie ecosystem throughout this long period of Native American influence was their use of fire, a practice that ended when the first settler/farmer settled on the Sauk Prairie 160 years ago.

#### Prairie to Pasture

William Johnson, a New York native, was the first to break into the prairie soil, bringing "modern" agriculture to the Sauk Prairie in the first half of the nineteenth century. The Prairie proved a fertile ground for farm families that began arriving in droves, on the heels of William Johnson. Their agricultural parcels ranged from one to 320 acres in size, with an average of 120 acres. The typical farm crops consisted of corn, wheat, grain for livestock, and some oats. Prior to the dust bowl, wheat was the primary crop.

However, wheat took too much out of the soil, so the harvesting of wheat became unprofitable. Farmers also grew hops (used in beer) prior to the 1900s. Yet at the time farmers sold their land to make way for the Badger Army Ammunition Plant, corn was their primary crop.



### Eighty Families Displaced

80 families were displaced from the area and forced to sell their homes and farmland. Farms were sold much below market value. The prices offered to farmers were what many had paid for the farm when it was bought—10 year old market value. All farmers were eventually bought out. There was no option to stay. These farmers and their families were relocated, with many settling in nearby Columbus. Some went to work in construction or production at Badger.

These displaced farmers have no chance to recover their land now, as money and checks were cashed and the transfer of land was finalized. Yet it is nonetheless important to remember the farmers who were forced to sell their home and land for the building of the Badger Army Ammunition Plant.

### USDA and the BAAP Brief History

The USDA acquired the land through a proposal from Senator Proxmire in 1979. They received a lease to use the land for 20 years at no cost. In 1999 they started renting the land and in September of 2004 the USDA gained ownership of most of the land they wanted.

#### No Farmers Allowed

In 2004 no private farmers were allowed at Badger. Due to the costly nature of providing water to the farmers, the army cut the water supply. The farmers, without water for their cattle moved elsewhere.



Aerial photo of the main building of USDA's Dairy Forage Research Center, located in the extreme south-east corner of the BAAP.

#### **Forage Crops**

At first, the land was used for growing corn, both for silage and as a grain. They also planted soybeans, alfalfa, and winter wheat. Winter wheat is a type of cereal that is planted September through December. It sprouts before the ground freezes, and then remains dormant. In spring when the ground warms up again, it starts to grow and continues to do so until early to mid-July, when it is harvested.