

CHEYENNE HORTICULTURAL FIELD STATION and the HIGH PLAINS GRASSLANDS RESEARCH STATION



An experiment station near Cheyenne, WY, was authorized March 19, 1928. Congress directed the U.S. Department of Agriculture to establish the Station to experiment with and propagate flowers, vegetables, and shade, fruit, ornamental, and shelterbelt trees, shrubs and vines adapted to the conditions and needs of the semiarid or dry land regions of the U.S. Land (2140 acres) and water rights (400 acre-feet) were leased from the City of Cheyenne for 199 years at \$1 per year.

The Station was named the Central Great Plains Field Station and was to co-operate with the Northern Great Plains Field Station at Mandan, North Dakota, and the Southern Great Plains Field Station at Woodward, Oklahoma. Building construction began June 1928. The first superintendent was Robert Wilson, from 1928 to 1930.

In 1930, the Station was renamed the Cheyenne Horticultural Field Station and A.C. Hildreth was named superintendent. The first plantings of trees, shrubs, fruits and vegetables were made in 1930 and building construction was completed in 1931. Numerous shelterbelt and landscape plantings were made on federal, state and local government co-operator's lands. An additional 323 cooperative plantings were made on farms in Wyoming, Colorado, Nebraska, Kansas, South Dakota, and Utah.

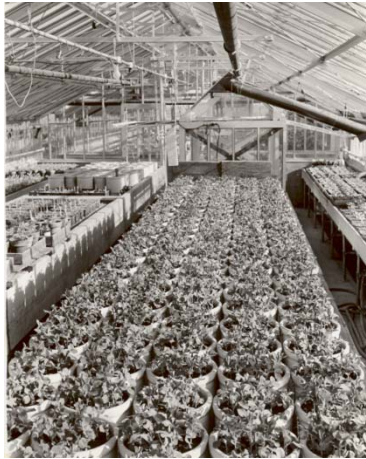


A Civilian Conservation Corps camp of 200 men opened up on the Station in 1935. In 7 years, the CCC built roads, over 2 miles of concrete-lined irrigation ditches, and a water and septic system, and planted thousands of trees and shrubs. This camp reputedly had the worst food in the country.

Over 1,300 varieties of tree fruits, (apples, pears, plums, cherries, etc.) and 300 varieties of small fruits (raspberries, strawberries, currants, and gooseberries) were tested for hardiness to drought and cold. To find a winter-hardy strawberry for the High Plains 42,000 native strawberries were collected from Montana to New Mexico. This work led to the release of several superior varieties, including

Radiance, Ogallala and Fort Laramie.

In 1936, forage crop research began at the Station. Over 200 species and varieties of grass were established to evaluate their yield potential, drought and cold tolerance, and nutritive value. The first horticultural publication from the Station was issued this year, followed by the first publication on grass research in 1940.



Hildreth and others were temporarily assigned to California in 1942 to study the guayule plant as a possible rubber source. M.F. Babb was acting superintendent during his absence. When Hildreth returned, he continued to develop the horticultural research program at the Station and wrote the weekly “Hildreth Column” in the Cheyenne Eagle Newspaper. He helped establish an agricultural experiment station in Afghanistan from 1955 to 1957. G.B. Brown was acting superintendent during his absence. After returning from Afghanistan, Hildreth retired in 1959; in 1979, the road through the Station was named Hildreth Road.

L.A. Schaal became superintendent in 1960, and in 1961, potato research was begun in cooperation with the USDA Station at Greeley, Colorado, and the University of Wyoming. In 1962, results of 28 years of tree fruit tests were published, evaluating 1,200 apple, 300 plum, 50 cherry, and 40 pear varieties.



Gene Howard became superintendent in 1964 and began the carnation and chrysanthemum research. The Cheyenne Hardy Mums, developed at the Station, were named Cheyenne’s official flower in 1970. These mums, named for historic Wyoming people and places, are still sold by Huff’s Gardens, Burlington, Kansas.

The year 1974 was a milestone for the Station. Gene Howard had the task of developing a new program and terminating one that was dear to his heart when the Station’s mission changed from horticulture and shelterbelt research to livestock grazing management, mined land reclamation, and water conservation research. The name changed to the High Plains Grasslands Research Station and over the next 2 years, the staff expanded to include soil scientists, range scientists and agronomists.



Richard Hart became Location Leader (new superintendent title) in 1976 and the first publications of the new research were released. In 1979, the Station celebrated its “Gold+1” anniversary. In 1980, 730 acres of land were acquired from Warren Air Force Base to support more livestock grazing research.

Gerald Schuman became the 8th Location Leader in 1981. Research continued in livestock management, water conservation, and mined land reclamation until 1983, when the water conservation research was redirected into reclamation research. A great deal of new reclamation technology was developed between 1974 and 1984, answering many of the immediate needs of industry and state and federal regulatory agencies.

After 1984, most of the reclamation research was then redirected into research on soil erosion and the conversion of marginal croplands to grasslands. Research showed that soil improved three years after seeding, and that forage production on these lands can be as profitable as wheat production.

Another important research field has been on establishing native woody plants on disturbed or mismanaged rangeland. This work has expanded our knowledge of how seed treatment and the environment influence shrub establishment. For instance, it was found that seeds of winterfat, a valuable browse shrub, should not be threshed to remove seed hairs, which anchor the seed to the soil during germination and contribute nutrients to the seedling. Optimum temperatures for moisture uptake, germination and the establishment by seeds of many plant species have been determined.



Perhaps the very heart of the research conducted at the Station since 1974 has been concerned with cattle grazing. Season-long, rotationally-deferred, and time-controlled rotation grazing strategies have been evaluated to determine the most profitable stocking rates for each, and their effects on cattle gains and behavior; plant communities; and soil nutrient and water cycling. Stocking rate, pasture size and distance to water are more important than grazing strategy in determining cattle gains. Results are presented in the SMART, PASTORAL, and STEERISK computer models, which illustrate grazing behavior and help the cattle producer estimate the risks and profits of different stocking rates and grazing strategies.

In 1998, Jack A. Morgan took over as the ninth and present Research Leader for the Station. By this time, much of the grazing studies had begun focusing on sustainable grazing practices, and also had begun to consider environmental aspects of grazinglands, like how will increase atmospheric CO₂ concentrations and other aspects of global change affect our grazinglands. The group also began to evaluate how different management strategies affected soil quality and the capability of rangelands to sequester C from the atmospheric, which would help lessen severity of predicted climatic changes for the next century. One of the good stories to come out of this research is that grazing can actually improve the health of rangelands and their soils, if managed correctly. Along with these newer studies, more traditional research into optimal calving dates, selection of forage legumes for grazing, grazing management, and range condition continue to this day. This research is directed towards helping producers and land managers use our rangelands wisely so that present and future generations may continue to make a living and contribute to the goods and services these lands provide.



The station has had a varied and interesting history. To many it is still the Cheyenne Horticultural Field Station or the “Hort Station”, because of the many acres of trees, fruits, vegetables, and flowers it once supported. And Hort Station is easier to say than High Plains Grassland Research Station; the staff’s nickname for the station, “Happy Grass”, never caught on.

Many local school children know the Station because of their yearly field trips to see the reclamation films and visit the laboratories, greenhouses, and “Donut,” the cow with a porthole in her stomach. Our constituents have a long history of supporting the Station and continue to play an active role in identifying research needs and ensuring Congressional and Agency support for our program.

The High Plains Grasslands Research Station performs within the Agricultural Research Service, United States Department of Agriculture. While the program has changed from flowers, strawberries and apples to forage and soil management, the Station continues to play an important role in agricultural research locally, regionally, nationally, and internationally.



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