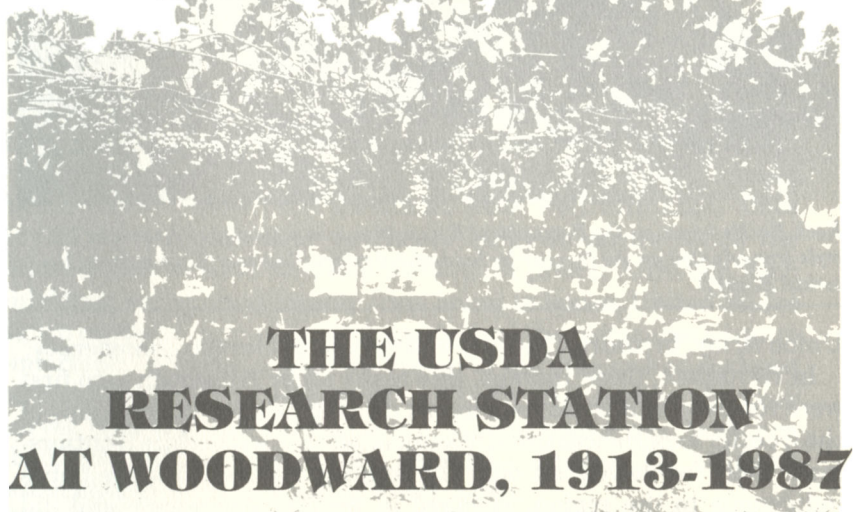


Jujubes, Grapes, & Grass



By Louise Boyd James

Senator Thomas P. Gore's arrival in Woodward the afternoon of October 30, 1913, would not be notable if Gore had been "just hitting the high places" to get ready "for the big fight" as the local newspapers reported.¹ While it was true that Gore would run for a third term as Oklahoma's senator, he had another reason for being in Woodward, one which must have been known along the town's long, crooked Main Street. As chairman of the Senate Committee on Agriculture he would soon make a decision which could favorably affect this growing prairie town of 3,000—if Woodward won.

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As if western hospitality might be the key to swaying the senator, a large, enthusiastic delegation met Gore and his wife, Nina Kay, at the depot and escorted them to the Central Hotel where a steady stream of visitors called. The Woodward women made certain that Mrs. Gore, who acted as the blind senator's eyes, was not neglected in the pleasantries.² It is probable she accompanied him the next morning to Woodward High School where he spoke for an hour in the building later known affectionately as "Old Central." In 1913, the brand-new school was tangible evidence of Woodward's growth and progress in recent years.

Before the Gores boarded the Wichita Falls and Northwestern train that afternoon, bound for Lawton and home, the senator had made his decision. He telegraphed agriculture officials in Washington, D.C., of it before he left. Woodward was to be the site of the government experiment farm in western Oklahoma, winning over Alva and other towns which had wanted the facility.³

Woodward County Commissioners already had arranged to purchase a 160-acre tract adjoining the city to the southwest, a plot that was originally school land. The farm purchased for \$9,000 was described as a "wind-swept country without trees except a few knotty bushes," or "the most sandy piece of soil in the vicinity of Woodward, without a tree growing on it."⁴ This unpromising quarter would be leased to the Division of Dry Land Agriculture of the Department of Agriculture for ninety-nine years, with the idea that if crops grew there they would grow anywhere. A 1922 news story put it this way: "When proper cultivation will cause the sandhills where the Experiment Farm does its work on to produce thirty five [sic] bushels of wheat and thirty three [sic] bushels of rye per acre it is worth while for farmers to read this report carefully. . . . There is probably no farm in Woodward County that is not better than the one hundred sixty acres upon which the Experiment Farm conducts its experiments."⁵

The first field station superintendent, Ellery "Frank" Chilcott, said there was a lone cottonwood on the grounds of the research station when he arrived. The tree marked the grave of Ed Jennings, who had been buried there in 1895 following the shoot out between Ed, his brother, John, and Temple Houston and Jack Love.⁶ Fairview, as the cemetery was initially called, was probably used first about 1893; in 1905 Woodward city officials replaced it with the purchase of a new cemetery, Elmwood, located in the next section south and west. There had been concern over title to Fairview as it was on a school section, and it was also poorly platted and arranged, lacking proper surveying

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into lots, driveways, and walks. Lots were ready in Elmwood by December, 1905, as Billy Bolton's *Woodward News* reported: "Those desiring to purchase cemetery lots may now do so by calling on city clerk, Fyffe, as the plot is ready for dispersal. Early comers secure choice. All one price, ten dollars each."⁷

Some remains may have been moved from Fairview to Elmwood at this time, but it was not until the land was chosen as the site for the field station that there was an organized approach to moving the graves, a real necessity after E. C. Chilcott, Frank's father who also worked for the Department of Agriculture in charge of Dry Land Investigation, visited Woodward in November, 1913, and located the station's administration building on top of the old cemetery.⁸

In February, 1914, Woodward County Commissioners awarded a contract to Mooreland undertaker C. L. Lambert, who had submitted the low bid of \$6.75 to disinter and re-bury each body. Officials estimated the remains of about 65 people would be moved. Relatives of the known dead were billed for this expense, but in the case of unknowns, and there were several of these due to Woodward's early and deserved reputation as a "little Dodge City," the county paid for removal. Lambert later told friends in Mooreland that "lead poisoning" was the cause of death for many of those "planted" on the hill.⁹





Ellery Franklin Chilcott (right) was the first superintendent at the Experiment Station who built the original office and residence near the lone cottonwood tree (facing page) (Courtesy U.S.D.A. Research Station and Grace Hunter Adams).

The undertaker finished his grisly task in early March, 1914, and contracts were approved for the construction of the station's first buildings. These included a 33-foot by 40-foot horse barn, known as Barn Number One. It had stalls for nine horses, harness and feed rooms, and a hay loft. There also was an implement shed for the horse-drawn equipment and an office building with a general laboratory, fire proof vault, superintendent's office, and large work room. The second floor was to be used as a dark room. There were three residence buildings, a two-story, ten-room superintendent's residence, and two five-room "cottages."¹⁰

The first crops—wheat, sorghum, and broomcorn—were planted in 1914 despite the fact ground preparation was rushed. Winona Hunter Chilcott, who married Frank Chilcott in November, 1922, recalled that research emphasis was on crop rotation, cultivation methods to prevent wind erosion, and plant breeding, especially the development of a straight-neck sorghum.¹¹ Sorghum, also called milo, kaffir, and maize locally, was planted in early summer and tolerated the hot, usually dry climate of western Oklahoma. The grain ripened in the fall and was used, as was corn, either cracked or whole in cattle and hog feed. Taller varieties would eventually supply a principal hay crop for the region.¹²

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Plant geneticist John B. Sieglinger arrived in Woodward in 1915 to take charge of the sorghum and broomcorn improvement. "Sorghum had a crooked head that bent to one side when it was ripe," Winona Chilcott said. "Mr. Sieglinger decided the head should be erect and stand up straight so it could be harvested easier [mechanically by combine or header rather than by hand]. We watched that erect-headed sorghum develop. Two or three generations were grown in the green house to speed things up."¹³ By 1921 "sixty-eight new varieties of grain sorghums brought from the dry countries of Asia and Africa" could be found growing in Woodward under Sieglinger's care.¹⁴ More varieties were added and by 1928 Chilcott observed, "I think it is safe to say there are more varieties of kaffirs, milos, and broom corns grown here than any other place in the world. . . . The Experiment Station sells at reasonable prices many bushels of pure seed."¹⁵

One of the grain sorghums introduced from the Woodward station was Wheatland. In 1930 Wheatland and other combine types were grown in five-acre plots at the Fort Hays Experiment Station, Hays, Kansas, also under the supervision of Chilcott and Sieglinger. Robert Hunter, who worked at Fort Hays from 1930 to 1943, and at the Woodward station from 1945 until 1968 as research assistant in sorghum and wheat, explained, "The sorghums were developed at the Woodward station but tested at Hays which had more farming experiments. Wheatland was chosen as the best. Wheatland seed was distributed at both Hays and Woodward. It was the first commercially available combine-type milo."¹⁶

Hunter also recalled Sooner milo, another Woodward originated variety. "Sooner was like a regular milo, not a combine type, but was grown for its earliness. It matured two weeks earlier than other milos. It was used during the dust bowl days when the summers were real hot; it was planted late in the season to avoid some of the heat and still matured before frost."¹⁷ It was one of the few grain crops to mature on the Southern Plains in 1936.¹⁸

Because of the emphasis on sorghum, the principal field day at the early experiment station was in the fall when the crop was ready for harvest. Field days were giant open houses. Area farmers, ranchers, and other agri-business people came to see the research in progress and hear lectures from agriculture leaders and scientists. They greeted old friends and shared their picnic lunches on the grounds. Often the station furnished bunches of grapes for dessert, and visitors were encouraged to guess how many different varieties were offered.

For at least twenty years those visitors expected to hear "Sieg"

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discuss the various plots of sorghums, and, as indicated by the 1924 Farmers' Day agenda, they also viewed broomcorn experimental plots, saw "results of different dates of planting, spacing of plants in rows, etc.; varieties of cowpeas and other crops grown; methods of cross-breeding and fertilization to secure a new and better varieties; the orchard and vineyard and the many kinds of trees and ornamental shrubs that are being grown on the grounds."¹⁹ Sorghum research would continue until the early 1970s.²⁰



*Workers at the station stacked sorghum, the "principal hay crop of the Southwest."
(All photographs are courtesy of the Research Station unless marked otherwise.)*

The trees and shrubs viewed by field day visitors in 1924 were the pet project of Chilcott. "He wanted the station to look pretty in addition to being a research site. He felt the same about a farm too, that people could get their farms to look good. The station was a showplace to inspire individual owners."²¹ In keeping with the showplace approach, one employee recalled Chilcott's instructions, "Never leave a weed."²² Chilcott's philosophy was reflected in a caption found in a photograph album which shows projects done in the mid-1930s: "The more difficult it is to grow trees and flowers, the more value people place upon them. In the dry Southwest they are beyond price."²³ The album was kept by long-time station foreman John Brenner.

The first ornamental tree and shrub plantings were done "due to Supt. Chilcott's love of trees and his tireless efforts to develop this

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phase of work 'between times' as so much farm improvement must be done," a contemporary story noted.²⁴ At field day in 1924 more than 50 varieties of shade and ornamental trees, and as many shrubs, grew on the grounds where once there had been the single cottonwood. In the orchard more than 50 varieties of peaches, 35 varieties of apples, several plums, apricots, pears, and 120 varieties of grapes were exhibited to visiting farmers and their wives.²⁵

As the trees grew so too did the nature and scope of the station. The two were sometimes in conflict. Grace Hunter Adams, Mrs. Chilcott's sister recalled: "Frank's love of those trees was so intense that he



From 1931 (above) to 1935 (facing page), the dramatic growth of shrubbery around the superintendent's house illustrated the aesthetic and practical advantages of rural home beautification on the Southern Plains.

could not bear to see one destroyed as was often needed as the station changed. There was a standing joke to the effect that if trees had to be removed he would wait until he must be gone on a visit to one of the six other stations he supervised in Kansas, New Mexico, Texas, or Colorado. He marked the trees and left the order that they be removed while he was away."²⁶

Chilcott regarded grapes as "the most dependable fruit for the Southern Plains." More than 200 varieties were eventually tested at the station under the supervision of horticulturist Lowell F. Locke, who came to Woodward in 1920.²⁷ Like many of the men who worked at the station, it was common "for Mr. Locke to spend months plan-

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ning a project, then plant 400 to 500 varieties of a certain crop, experiment with it 10, 15 or even 20 years before reaching definite conclusions."²⁸

In 1938 Locke began such a project with a search for a tomato that would grow faithfully on the arid Southern Plains. He crossed a Porter tomato with a Danmark, using the Porter as the female parent. A selected F-2 plant was crossed with Break O' Day. Several generations of tomatoes later, in February, 1950, Locke introduced the Westernred, a tomato that would bear fruit almost without fail. Locke, who was allergic to tomatoes, depended on his wife to taste, cook, and evaluate the many tomatoes produced between 1938 and 1950.²⁹

Earlier, Locke had introduced the improved jujube, or Chinese date. "They have a very delicious fruit with a smooth brown skin and ivory fruit," Mrs. Chilcott said. "You ate them skin and all. It was not as firm as a peach, more like an apple. I made jams and jelly from them and also candied them."³⁰

The jujube was featured as a new crop in 1924. "The quality of the fruit is as yet not demonstrated here," field day publicity said, "but they seem to be hardy, are very late flowering and probably proofed



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against frost.”³¹ Chilcott wrote of the crop in 1926, “The Jujube does not need the pampering that most fruit trees do, seeming to be well adapted to dry, and particularly to sandy soils.”³² Careful records were kept for each jujube tried. The one numbered 38249 was planted in the B-5 space in April, 1925; it had been gathered from Shansi, China, by Frank N. Meyer, agricultural explorer. The first crop was harvested October 12, 1929; the tree had grown to seven feet in height but produced “few fruit.” The last entry for this tree is dated September 30, 1946. It stood fifteen feet, four inches tall, had fruit of “excellent” flavor, but produced “nearly no fruit.”³³ Many of the jujubes seem to have produced little fruit, but perhaps the main problem with the crop was summed up by Elizabeth Bell, whose father Martin A. Bell served as superintendent in the early 1940s. “Jujubes were like eating a piece of wood,” she said.³⁴

Locke probably also supervised Jerusalem artichoke production at the station in the 1910s and 1920s. The plant was related to the sunflower producing a root similar to a potato. Jerusalem artichokes were the passion of *Woodward Democrat* editor David P. Marum, who became the champion of the field station. Marum, who prided himself





Local pride in the research station, with its fields of grains, shrubs, and vegetables (opposite page), was seen in a billboard near Woodward (above).

on looking like President Ulysses S. Grant, was once the law partner of Temple Houston. The newspaper man “was always trying to get people to raise artichokes,” recalled Harry Holmes who ran the press for Marum.³⁵ Marum believed the plant would bring prosperity to Northwest Oklahoma, ending the dependence on wheat and cattle.

“Winona fixed artichokes one time. She cooked them, and put a little butter over them,” Grace Adams said, “but they were rather bland.”³⁶ Undoubtedly Mrs. Chilcott served them to Marum on occasion since, “The last Saturday night of every month was Judge Marum’s. He always came to dinner at the station then.”³⁷

Another of Marum’s interests involved more than just planting a few artichokes. This one doubled the size of the station. It was another scheme designed to free farmers from dependence on wheat and beef cattle. Registered herds of dairy cows, pigs, and chickens were certain to bring prosperity, Marum believed. He had once told a Kansas newspaper, “It took us 40 years to learn that 30 acres of land were necessary to produce a ten dollar range cow, while four acres properly cultivated will feed a pure-bred Holstein. The Holstein will produce 18,000 pounds of milk a year, and give you a pure-bred calf for good measure.”³⁸

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In 1919 Congress appropriated \$10,000 to establish a livestock department at the Woodward field station. But, according to an editorial by Marum, "This could not be used because the bill failed to authorize the erection of buildings to shelter the animals."³⁹ Marum was not to be denied and continued lobbying for the new department. On February 23, 1921, Senator Gore telegraphed him: "The Senate agreed to my amendment today appropriating ten thousand dollars for livestock breeding station at Woodward, and authorized the Secretary to expend three thousand dollars in building stalls, sheds, etc. I am on the conference committee and feel sure of keeping the admendment in the bill."⁴⁰



After 1919 a dairy herd was established to increase milk production on the high plains. Daily records were kept on each cow such as this four-year-old.

Woodward had to provide land for the dairy, just as it had purchased the first 160 acres. The men who owned the southeast quarter of Section 36, Range 21 West, Township 23 North, which adjoined the existing station to the east, were Ben Key and John (Jack) Garvey. (It was Garvey's Cabinet Saloon where the Jennings brothers, Houston, and Love had the gun fight.) Its sale price, \$15,000, was much below the land's actual value, Marum said.⁴¹ Key had been called a "sponsor

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and angel" in the purchase of the original field station land in 1913. He had provided \$1,000 in cash needed "to cinch the contract."⁴²

A special election was held June 18, 1921, to approve the land purchase. Eighty-five percent of the voters approved the new "park" as the cow pasture was called in the papers.⁴³ By the end of June, 1921, Chilcott reported at a meeting of the Woodward Chamber of Commerce, "The cows have arrived." He then added, "I do want to say however that the wise, untiring, General through all the years and all the hardships has been Judge D. P. Marum."⁴⁴

In his public statements Chilcott had seemed to support the dairy addition as much as Marum did, but his family recalled otherwise. "He really didn't want the dairy. He basically thought the research should be elsewhere," Mrs. Chilcott said. She remembered that the dairy led to an immediate problem for him. Funding still was not adequate for the shelter he thought necessary, so he spent more than authorized. "He had to go to Washington to explain why he did this."⁴⁵ By 1926 the buildings at the dairy included a dairy barn, young-stock barn, feed barn, milk house, frame cottage for the herdsman, a hollow-tile silo, and a pit silo.⁴⁶ (In 1977 a new Woodward High School was built on the site of the old dairy station. In 1987 the "cottage" and a small barn remained at the north side of the campus.)

The Holstein bull, Count Piebe Watson Hero 311691, and his harem—six young cows, five two-year-old heifers, and a heifer calf—quickly settled in at Woodward under the care of C. J. Stauber, who had accompanied them on their train trip from Beltsville, Maryland, and had broken his hand while unloading them at Woodward.⁴⁷ For field days thereafter, the station could investigate whether or not "sugar beets are good cow feed?" and report "that in twenty-three days from planting, sudan grass will produce more pasture than can be had from other grasses, even if planted as late as July 1st, and that the cows pastured on this grass yield a big supply of milk of good quality."⁴⁸ This was just the kind of information which must have pleased Marum.

Pleasing him was important. "He saved the field station once when Congress failed to appropriate the money," Mrs. Chilcott said. "Town leaders tidied him up, he never cared much about how he looked but was devoted to the station, and sent him off to Washington. When he came back Congress had appropriated the money."⁴⁹ Before his death in April, 1929, Marum saw the station double in size again, when in 1928, "a tract of 240 acres to the west of the station was purchased by the state for small grain breeding and variety experiments and the expansion of tillage and rotation experiments."⁵⁰

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Stalks of wheat were gathered for testing (above) to find selections that "had stiffer straw, does not shatter so easily, is more disease resistant, and gives higher yield." This aerial view (facing page), taken in 1936, shows: 1. field planted to trees in contours; 2. variety test of roses; 3. demonstration windbreaks; 4. nursery; 5. garden; 6. tests of trees; 7. vineyard; 8. field crops; 9. tree tests; 10. tests of farming methods; and 11. windbreak along edge of station.

A second attempt to close the station occurred in 1934 as New Deal programs were put in place. The headlines of the *Woodward Daily Press* for January 5, 1934, screamed, "Field Station Out." A telegram from Will Rogers the next morning reassured, "Am advised that the only station eliminated is the one at Lawton. Yours intact." He was wrong. A telegram from Senator Gore, this time his message was not the usual good news, confirmed that the Woodward station was not funded in the 1935 budget. All the Great Plains stations, in fact, were out of favor as part of the recovery scheme. The plan to close them was met with such a storm of protest from farmers, ranchers, and chambers of commerce that by late February they were again in the budget. The dairy division, which reported to different people in Washington, was not in danger of closing in 1934.⁵¹

Not only was the station saved, but its duties also were greatly expanded. Ernest W. Johnson, who had served as forest nurseryman in charge of tree and shrub research at Fort Hays, Kansas, trans-

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ferred to Woodward in June, 1934. No longer would tree and shrub work be done between the other tasks. Johnson and Lowell Locke soon shared a new greenhouse and laboratory, built in 1935 just east of the original administration building. It replaced a small greenhouse which had been attached to the administration building. Johnson started cuttings in sand in the greenhouse, or sprouted seedlings in three-foot-by-ten-foot outdoor seedbeds with boards placed on edge around them to protect the young plants from blowing sand and dirt. The trees were later moved to a tree nursery and many were eventually dug and balled to use throughout a five-state region.⁵²



An aerial photograph of the station taken about 1936 illustrated the importance of tree research by this date. There were fields planted to trees in contours, variety tests of roses, two areas of demonstration windbreaks, a plant nursery, a vegetable garden, tests of new trees, the vineyard, field crops, and tests of farming methods.⁵³

The work of the Woodward station along these lines was described by Chilcott about 1936:

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More trees for shade and shelterbelt and more shrubs for windbreak and ornament have been tried here than any other place in the semiarid southwest. A general trial of all plants that may be of use for beautifying home surroundings or that may be useful for browse and pasture plants is being made. This year alone tests are being started on 600 new plants that may be useful for one of several purposes. Part of these are grasses, part browse plants, and others are useful for shade and windbreak purpose. . . .

The Woodward station is the gateway to the Southern Plains. Practically all plant material, whether sorghums, wheat grasses or trees is first tested here. If it proves promising it is further tested at stations with considerable less rainfall at Garden City, Kans., Dalhart and Big Springs, Tex., and at Tucumcari, N.M. If it proves good at these stations also it is distributed to farmers.⁵⁴

In time there were over 500 such cooperators. The station furnished them a few plants of many varieties to plant and care for as a further test.⁵⁵ "The planting sites were recommended by the county or home-demonstration agents in the various counties. Before World War II each site was personally inspected by a representative of the Department of Agriculture prior to the planting season."⁵⁶



By the 1930s research into grass selection and production was added to the scope of the research station. Here, varieties were tested in controlled plots.

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Gene Vanderslice, who came to work at the station in 1939, said of the tree and shrub work, "We were propagating all new stuff for distribution on the Southern Great Plains, for home beautification and wind breaks. Most plants came to us from Beltsville, the plant introduction office."⁵⁷

With the millions of dollars being spent in recovery and relief across the nation in the 1930s, supporters of the Woodward station desired additional money. Woodward Chamber of Commerce Secretary/Manager Dwight Wolfinger wrote United States Representative Josh Lee: "Doesn't it seem logical to divert a few thousand from the millions suggested for new experiments—to help this old, proven station, which is sadly under-financed?" he queried. "We believe with a little adroit work by a few Congressmen this could be done—a worthy institution—and nobody hurt."⁵⁸

Such efforts resulted in obtaining grass breeding and regrassing experiments which began in 1936. Never before had Great Plains farmers and ranchers faced the problem of regrassing thousands of acres; always before progress had been measured by new acres broken to the plow, not those restored to grass. Grass seed, as well as the technology to harvest and plant it, was not available.

To head this new mission, agronomist David A. Savage transferred from Fort Hays. At Woodward he developed methods for reseeding the abandoned farm and crop land, methods which would be applied to nearly five million acres in the Southern Great Plains. Not only did the staff expand, but once again the size of the station increased. "In 1938, a 480-acre tract was added by government purchase for the expansion of grass and other investigations. The dam on Spring Creek was built in 1938 and the irrigation system completed the next year."⁵⁹

Before grass breeding and reseeding began, the station needed native grass plants. Harley Brown, who had worked for Johnson under the National Youth Administration program, helped gather these. "Collections were made all over the Southern Great Plains," Brown said. "We would drive the roadsides looking for grass." Among the grasses assembled were buffalo grass, side bluestem, sand love, switch grass, side-oats grama, blue grama, and Indian grass.

Maurice Peterson became the first grass breeder in 1939. From then until 1942 he assisted in the development of seed supplies of sand lovegrass, helped develop Tucson side-oats grama, and refined several greenhouse techniques for growing grass seedlings. He was followed by Dr. Jack R. Harlan from 1942 to 1951. Dr. Harlan and his

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associates were highly successful in the development of improved grasses such as Southland bromegrass, Caddo switchgrass, Coronado side-oats grama, and Midland bermuda. His collection and study of Old World bluestems attracted national and international attention. Subsequent grass breeders were Dr. Bob Kneebone, Don Hutchison, Dr. Joe Hunt, and Dr. Paul Voight, the last grass breeder by that title, from 1963 to 1973. Development of a more palatable weeping lovegrass resulted from their research.⁶¹

In 1939, as the station was expanding both in size and mission, Superintendent Chilcott was killed in an automobile accident. Chilcott would be called "The Boss" by former employees almost fifty years later. Appropriately, his funeral was held at the station grounds, and his ashes were scattered there afterward.⁶²

Lowell Locke was named acting superintendent for a short time after Chilcott's death, until Martin A. Bell, an agronomist from Montana transferred to Woodward that same year. The Bell family lived in a new Residence #1, which Chilcott had designed. Life at the station was "like living on a gigantic estate," Bell's son, Bill, said of the seven years the family spent in Woodward. There were five residences on the grounds by then, and about a dozen children living at the station.

"We had lots of grapes in the backyard," his sister, Elizabeth,



Grass and cattle came to dominate research activities after World War II. This excellent stand of weeping lovegrass (above) was planted in 1942 and photographed in 1948. At the end of each grazing year, farmers and stockmen inspected steers (facing page).

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added. "We were allowed to eat off the first row, and were to leave everything else alone. One department brought sacks of tomatoes and radishes—there might be ten kinds of radishes—for my mother to grade. Mother sat down and scored them on little cards for flavor, texture, appearance."⁶³ Wives and children had been involved, both officially and otherwise, with much of the research until the addition of over 4,000 acres of range land near Fort Supply in 1940. The introduction of beef animals changed the focus of the work, and would, in time, diminish family participation.

The first Hereford steers were released at the Fort Supply range on December 7, 1941.⁶⁴ Field day thereafter included pasture tours, and,



for several years, a Clay Potts barbecue at noon. Potts, from Stillwater, Oklahoma, was the "recognized dean of barbecuers."⁶⁵ Crowds attending the range tours might number from 1,500 to 3,000 people. Each would be served a barbecue sandwich, thick onion slice, and beans. They viewed results of grazing experiments and saw demonstrations of ways to control sagebrush, skunk brush, and shinnery.⁶⁶

Cecil Armstrong, who worked for the station from 1938 to 1976, retiring in charge of brush control, said, "All weed control was done through cooperative work with ranchers who stood the cost of spraying. We were limited in area to do ground plots on the station ranch because of grazing experiments."⁶⁷ Cars with license tags from Col-

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orado, New Mexico, Kansas, Ohio, Missouri, Texas, Arizona, and Minnesota, as well as Oklahoma, formed a dusty caravan to these ranches, while at headquarters in Woodward, range grasses were displayed to illustrate that "the condition and stocking rate of range depends upon the relative amounts of desirable and undesirable grasses."⁶⁸

A story in 1946 promised that field day visitors "will have the opportunity of inspecting newly developed strains of grass, and the grass breeding nurseries and a 150 acre grass cafeteria where beef



Controlling sand sagebrush was a major objective of research activities. Mowing demonstrations were conducted at field days (above) and comparisons in weight gain were conducted to prove the advantages of sage control (opposite page).

cattle grazed free choice on 40 different species of grass."⁶⁹

Martin Bell returned to Montana that same year. Once again, Lowell F. Locke became acting superintendent until July 1, 1948, when David Savage became superintendent. Savage served in this capacity until his death in April, 1954. Field days probably reached their peak under Savage. The noon Potts barbecue was the highlight of a program which usually had an area banker or politician presiding as master of ceremonies. As many as 5,000 people attended.⁷⁰

Field day was canceled in 1947 because of the Woodward tornado. It

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also was canceled in 1950 due to a “war-time economy [Korean Conflict] which is expected to result in a 10% cut in funds for all non-military government agencies,” Savage announced.⁷¹ Such cuts did not halt construction of a new administration building on the site of the original office building which had been badly damaged by the storm. The old structure also had been partially burned in 1948 and had become invested by termites.⁷² During construction the original use of the land was evident, according to Allen Schneider, who worked on the project. “We’d hear glass breaking [turn-of-the-century coffin lids] as the dirt work was done, and then we’d know to look for bones and handles from the caskets.”⁷³

A story in the *Woodward Daily Press* reported the skeletons of two men were found, “one a big man [some rumors persist that he was seven feet tall] who was still wearing his coat although all other clothing had deteriorated. Bits of light colored hair clung to his skull. [He’s remembered as a red head.] The other man’s bones harbored the [45 caliber] slug and several shot.”⁷⁴

By 1950, when the new office was built, the ten dollar range cow, of which Judge Marum had once warned—or at least her better-bred successor—was winning in the competition with the Holstein for

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Superintendent Pat McIlvain (above) joined the research station in 1954. He and other experts demonstrated range management skills at well attended "field days" on the Fort Supply range (opposite page).

grazing rights on the Southern Great Plains. E. H. (Pat) McIlvain recalled: "When I came to work in Woodward County there were about 13,000 people and 13,000 head of cattle in the county. When I retired in 1977 there were about 20,000 people and 105,000 head of cattle. From 1940 to 1977 there was a conversion to beef cattle. We at the field station have always taken credit for part of it. The type of farming changed from pig, dairy cow, chicken to specialized operations."⁷⁵

In 1948 the dairy station ended experiments such as pasturing cows "on little lots of sweet clover and other feed to see which made them milk better."⁷⁶ Many of the cattle were shipped to a station at Atlanta, Georgia, but the Woodward dairy continued for a while as a model operation rather than as a research center. On July 1, 1953, the dairy was closed and the cows were sold by sealed bid. Elmer Chaffin, who had been superintendent there since 1948, recalled the top milking Holstein in the nation, based on two milkings a day, was at Woodward then.⁷⁷

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Tillage experiments continued under the direction of Oklahoma State University staff rather than field station professionals after the 1950s. More than 500 one-tenth acre plots, farmed with teams of horses, had been planted to crops such as wheat, milo, broomcorn, cotton, peanuts, cow peas, corn, guar beans, and grass in earlier experiments⁷⁸

In September, 1954, Pat McIlvain was named superintendent.⁷⁹ During the 25 years of McIlvain's leadership, research focused on range management with the Fort Supply ranch becoming increasingly important. Among the successes he listed were the use of weeping love grass as an intensively managed pasture, the pioneer research on 2,4-D for control of sage and pasture weeds, and investigation into supplemental feedings.⁸⁰



Perhaps the most important change came in 1964 with the retirement of Lowell F. Locke and E. W. Johnson. The fruit, vegetable, flower, tree, and shrub research was over. There are many who still mourn this passing, a transition perhaps best noted by a *Woodward County Journal* story which ran at the time of Johnson's retirement. It announced that Dr. Joe Hunt, research geneticist, would begin work July 1, 1964, as grass breeder. He moved into the Johnson residence on the station grounds.⁸¹

The range cow's victory was complete.

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But, it appeared even these activities might end, on Friday, June 6, 1975, when a telephone call to superintendent McIlvain from Department of Agriculture officials in Washington, announced the Woodward station would be closed within six months as a budget-cutting measure. Protests began immediately with the Oklahoma Cattleman's Association and the Dean of Agriculture at OSU among the first to speak up. Oklahoma's United States Senators, Henry Bellmon and Dewey Bartlett, conferred with USDA officials to seek an alternative. Sixth District Congressman Glenn English urged that Secretary of Agriculture Earl Butz be snowed under with letters of protest, a campaign which the Woodward Chamber of Commerce championed. On July 10, 1975, Glenn English announced that the station had been saved.⁸²

The station emerged with a new director, Dr. Phillip L. Sims, who became superintendent in 1977; a new name, the Southern Plains Range Research Station in 1978; and a "mission to increase the efficiency of red meat production from rangeland consistent with perpetuation of range resources."⁸³ It would succeed in this last goal by introducing two improved Old World bluestem grasses, WW-Spar and WW-Iron Master, in 1982 and 1987 respectively, and by weaning two, ten-month-old, 1,000 pound calves, in the 1983-84 calf crop, well over the average weaning weight of 450 to 600 pounds.⁸⁴



About 1960 researchers sprayed a shinnery oak range south of Arnett with 2-4-5 T. The improved range produced more than \$70,000 worth of native grass seed.

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Seventy-five years after its beginning, the station had approximately twenty employees and an annual budget of \$750,000. The original 160-acre tract was the state's largest arboretum with over 10,000 varieties of trees and shrubs having been tested there.⁸⁵ In a greenhouse shaded by what could be the first three Chinese Elms planted in the United States, agronomist Chet Dewald recently started Eastern gammagrass as John Sieglinger had once sprouted sorghum and Lowell Locke tomatoes. Dewald said he would spend the rest of his life improving the grass which had been reported to be capable of producing fifty tons of hay per acre. In the past, eight tons of hay per acre has been phenomenal. That is just the type of help farmers and ranchers have come to expect from the USDA research station at Woodward.

ENDNOTES

* Louise James is a historian/writer living near Woodward. She holds the M.A. in History from Oklahoma State University and is the author of numerous articles and the book, *Below Devils' Gap: The History of Woodward County*.

¹ *Woodward Democrat*, October 31, 1913; *Woodward News-Bulletin*, October 31, 1913.

² *Woodward Democrat*, October 31, 1913; Charles Evans, "Thomas Pryor Gore, 1870-1949," *The Chronicles of Oklahoma*, 27 (Summer, 1949), 145-147.

³ *Woodward News Bulletin*, October 31, 1913. Woodward honored Senator Gore with a "Gore Day" in July, 1914. Festivities were held in Central City Park, renamed Centennial Park in 1987, in a Chautauqua tent.

⁴ *Woodward Democrat*, April 21, 1922, June 24, 1921.

⁵ *Ibid.*, July 28, 1922.

⁶ From the files of the Southern Plains Range Research Station, Woodward, Oklahoma, hereafter cited as the SPRRS.

⁷ *Woodward Bulletin*, April 11, 1902; *Woodward News*, December 15, 1905. The *Woodward News* cited has no connection with the paper of the same name published in 1987.

⁸ *Woodward Democrat*, July 3, 1914, November 14, 1913. Also interviews with Dr. Phillip L. Sims, superintendent of the Southern Plains Range Research Station, over a period of time from 1979 to 1987.

⁹ *Mooreland Leader*, February 20, 1914, February 27, 1914; telephone interviews with Allen Schneider, Woodward, and Boyd Tingler, Mooreland, June, 1987.

¹⁰ *Mooreland Leader*, March 6, 1914.

¹¹ Interview with Winona Hunter Chilcott and her daughter, Mary Alice Chilcott, in the home of Mrs. Chilcott's sister, Grace Adams, Sharon, Oklahoma, September 21, 1984; "U.S. Southern Plains Field Station," in the files of the Plains Indians and Pioneers Museum, Woodward, Oklahoma, possibly written by Lowell F. Locke.

¹² Interview with Woodward County Agent Terry Nelson, July 2, 1987, and John Brenner Photo Album in the files of the Southern Plains Range Research Station, Woodward, Oklahoma.

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- ¹³ Chilcott interview.
- ¹⁴ *Woodward Democrat*, June 24, 1921.
- ¹⁵ *Woodward Democrat*, June 29, 1928.
- ¹⁶ Telephone interview with Robert Hunter, brother-in-law to Frank Chilcott, July 31, 1987.
- ¹⁷ *Ibid.*
- ¹⁸ Chilcott Family Papers in possession of Grace Hunter Adams.
- ¹⁹ *Woodward News Bulletin*, August 29, 1924.
- ²⁰ Hunter interview.
- ²¹ Chilcott interview.
- ²² Interview with Steve Gambrel in his Woodward home, January 21, 1987. Gambrel worked for the dairy division of the field station from 1926 to 1948.
- ²³ Brenner Album, in the files of the SPRRS.
- ²⁴ *Woodward News Bulletin*, September 12, 1924.
- ²⁵ *Ibid.*
- ²⁶ Telephone interview with Grace Hunter Adams, Sharon, Oklahoma, October 30, 1986.
- ²⁷ Brenner Album.
- ²⁸ *Woodward County Journal*, January 23, 1964.
- ²⁹ Clipping dated February 20, 1950, Brenner Scrapbook in the files of the SPRRS.
- ³⁰ Chilcott interview.
- ³¹ *Woodward News Bulletin*, September 12, 1924.
- ³² *Woodward Democrat*, January 29, 1926.
- ³³ In the files of the SPRRS.
- ³⁴ Interview with Bill and Elizabeth Bell, January 12, 1985.
- ³⁵ Interview with Harry Holmes at his Woodward home, July, 1985.
- ³⁶ Adams interview.
- ³⁷ Chilcott interview.
- ³⁸ *Woodward Democrat*, April 13, 1929.
- ³⁹ *Woodward Democrat*, December 31, 1920.
- ⁴⁰ *Ibid.*, February 25, 1921.
- ⁴¹ *Ibid.*, June 24, 1921.
- ⁴² *Ibid.*, November 14, 1913.
- ⁴³ *Ibid.*, June 24, 1921.
- ⁴⁴ *Ibid.*, July 1, 1921.
- ⁴⁵ Chilcott interview.
- ⁴⁶ C. J. Stauber, Duncan Stuart, R. R. Graves, "Dairy Work at the Woodward Field Station, Woodward, Oklahoma, 1921 to 1926," Circular 12 (U.S. Department of Agriculture: Washington, D.C., December 1927).
- ⁴⁷ *Woodward News Bulletin*, July 1, 1921.
- ⁴⁸ *Woodward Democrat*, October 28, 1921, and August 12, 1921.
- ⁴⁹ Chilcott interview.
- ⁵⁰ "U.S. Southern Plains Field Station," PIPM.
- ⁵¹ *Woodward Daily Press*, January 5, 1934, January 6, 1934; Chilcott Family Papers; Mary Alice Chilcott, "Ellery F. and Winona Hunter Chilcott," *Woodward Pioneer Families Before 1915* (Woodward: Plains Indians and Pioneers Museum Foundation, 1975), p. 87.
- ⁵² Interview with Russell Armstrong, September 4, 1987.
- ⁵³ Brenner Album.

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- ⁵⁴ *Ibid.*
- ⁵⁵ Chilcott Papers.
- ⁵⁶ E. W. Johnson, "Ornamental Shrubs for the Southern Great Plains; Farmers' Bulletin No. 2025," (United States Department of Agriculture: Washington, 1958) p. 2.
- ⁵⁷ Interviews with Gene Vanderslice over a period of time. Mr. Vanderslice worked with E. W. Johnson for many years.
- ⁵⁸ Chilcott papers.
- ⁵⁹ "U.S. Southern Plains Field Station," PIPM.
- ⁶⁰ Interview with Harely Brown at his Woodward home, September 7, 1987.
- ⁶¹ Files of the SPRRS and interview with Chet Dewald over a period of time.
- ⁶² Chilcott, Hunter, and Gambrel interviews.
- ⁶³ Bell interview.
- ⁶⁴ Interview with E. H. (Pat) McIlvain, June 12, 1987.
- ⁶⁵ *Woodward Daily Press*, October 6, 1944.
- ⁶⁶ *Ibid.*
- ⁶⁷ Interview with Cecil Armstrong, August 4, 1987.
- ⁶⁸ *Woodward Daily Press*, October 9, 1944.
- ⁶⁹ *Ibid.*, October 10, 1946.
- ⁷⁰ McIlvain Interview.
- ⁷¹ *Woodward County Journal*, August 31, 1950.
- ⁷² Clipping Brenner Scrapbook, dated October 22, 1950.
- ⁷³ Schneider interview.
- ⁷⁴ *Woodward Daily Press*, March 2, 1950.
- ⁷⁵ McIlvain Interview.
- ⁷⁶ Gambrel Interview.
- ⁷⁷ Telephone interview with Elmer Chaffin, April 27, 1987.
- ⁷⁸ Telephone interview with Kernie Rottmeyer, August, 1987; Rottmeyer worked at the station from 1945 to August, 1984.
- ⁷⁹ Brenner Scrapbook, clipping dated September 30, 1954.
- ⁸⁰ McIlvain Interview.
- ⁸¹ *Woodward County Journal*, June 25, 1964, January 23, 1964.
- ⁸² *Woodward Daily Press*, June 6, 1975, June 12, 1975, July 2, 1975, July 10, 1975.
- ⁸³ Sims Interview.
- ⁸⁴ *Ibid.*
- ⁸⁵ Interview with Bob Harrell, Oklahoma Department of Agriculture forester stationed at Woodward, over a period of time.