Historical Highlights of Grazing in the Central and Southern Great Plains

B. W. ALLRED

Soil Conservationist, Farm and Ranch Planning Division, Soil Conservation Service, Washington, D. C.

Historically the Great Plains region is an ancient pasture. The Jura-Triassic and Cretaceous beds hold the fossils of giant plant-eating dinosaurs and the fossil trees and herbs on which these ravenous animals grazed. Elevation of the Rocky Mountains ended the reign of dinosaurs and their disagreeable kind. Ancestors of both mammals and grasses probably appeared about this time. Some authorities believe that grasses are the descendants of Cretaceous sedges. The evolution of grasses in the Great Plains region apparently coincided with the evolution of the horse, camel and many other grass-eating mammals which originated in North America after the elevation of the Rockies. There were no cowboys or rangemen in those days as man did not show up until the early Ice Age.

The ancient land bridge across the present Bering Sea is believed to have been the pathway over which grass-eating mammals and other animals crossed between America and Asia. Many of their descendants, which include the bighorn sheep, Rocky Mountain goats, and others, found their way southward along the Old North Trail up the Yukon Valley. From there their course led over the low pass into the McKenzie Valley and southward to the Great Plains. While the North American Indians of the Pre-Columbian era had domesticated dogs and turkeys, they also hunted the wild grazing mammals like buffalo, deer and elk. Around the kitchen middens of ancient Yuma and Folsom man are found the cracked bones of horses, camels, bison, pigs and Ice Age elephants. It is not known why, but camels, horses and elephants disappeared from North America in the late Ice Age. The only members of these groups found when the white man arrived were bison, javelinas in Central and North America and llamas and alpacas in South America.

European horses were introduced to horseless North America by Ponce de Leon to Florida in 1513 and Cortez to Mexico in 1515. Around 1540 the descendants of these early horses which had escaped the Spaniards and ran wild were being tamed and ridden by Indians in Mexico. By 1760 horses were being used by the Indians from the Rockies to the eastern prairies and hardwood savannahs. Prairie and Plains Indians were hunting on the descendants of the horses brought over by the conquistadors 100 years before they came into active contact with white settlers from eastern United States. Except for the very southernmost tip, the Great Plains region was the last American frontier settled by Anglo-Saxons. Mounted Great Plains Indians became some of the best cavalry men and hunters of all time.

The first Europeans to cross the Southern Great Plains were the Spaniards, Cabeza de Vaca and Doriantes, and the negro, Esteban. After having been shipwrecked near the mouth of the Sabine River on the Texas gulf coast they wandered from there through the Pecos Valley and on to Culican, Mexico, on the Gulf of California during the period 1528 to 1536. Much of the time they nearly starved, living off dogs, rodents, snakes, worms, snails, roots, fruits of cactus, berries, offal and any other digestible vegetable and animal matter that they could find. They lived best in the "land of the people with cattle" in the southern Pecos River Valley. There, the Indians lived on buffalo, deer, antelope, rabbits, mesquite beans, pine nuts, squashes, corn and beans.

Cabeza de Vaca and Esteban learned many Indian dialects and probably while in Sonora, the imaginative Arab Moor Esteban heard tales from Indians about the self-sustaining Zuni pueblos and others in the Rio Grande Valley in New Mexico. With his colorful retelling the pueblos became the famous golden cities of Cibolo, a tale that put in motion a set of circumstances that tapped off the Coronado Expedition. Coronado brought with him the first European cattle, sheep, goats and horses to enter the Great Plains. In 1540 he crossed the present U.S. border with 6,500 head of livestock, of which 500 head were cattle. His trail on this misguided fortune hunt took him from the New Mexican pueblos on the Rio Grande across the high plains. Here he sent his main army back to Bernalillo and with 30 chosen warriors continued on to the locality of Salina, Kansas, before he gave up his abortive gold hunt and headed back to Mexico. The cattle, sheep and goats were used for food and it is doubtful if any of these animals survived to reproduce their kind. The Catholic padres later brought in livestock that served the various missions. Seed stock for the ranges originated from these sources. Di-

aries kept by some members of Coronado's entourage make special mention of the excellent grasslands that fed their grazing animals.

Cowboys were branded before cattle. Cortes conquered the Aztecs and branded them on the cheek with the letter G., meaning guerra or war. He trained the Indians to become herdsmen and as Mexican ranches developed, brands were used to identify cattle and horses of each ownership.

The term "cowboy" originated among the colonials of the eastern seaboard who kept cattle which were herded by day and kept in cowpens at night. The herding was done by boys too young for heavy labor so it was natural that they should inherit the name cowboy.

The western cowboy learned the art of his trade from the Mexican vaquero, meaning a man who works with cattle. Riding, roping, branding, and trailing were learned from Mexican vaqueros.

As cattle multiplied beyond the missions the great ranches of Texas developed. One man wrote "other States were carved or born; Texas grew from hide and horn." The first long drive across Texas occurred in 1721. Cattle and sheep were driven from San Antonio in Nuevo Leon, Mexico, to the military post of Los Adoes near the Louisiana-Texas Border. The distance was nearly 1,000 miles.

One hundred years of Spain's military, missionary, and cattle-raising colonization of Texas was followed by Mexico's fight for freedom from Spain. in 1821. Texas made her successful revolt against Mexico in 1836.

Another type of cattle figured importantly in the development of the West. These were the oxen that dragged the freight wagons. In 1856 Russell, Majors and Waddell, the largest single freight outfit, had 350 wagons, 50,000 oxen and 1700 employees. Oxen left to die on the trail often survived winters on native grass between Omaha and Salt Lake City, hence wintering of cattle on northern plains ranges was proved to be possible.

The Great Plains region occupies ⅕ of the land area of the United States, but we are concerned in this discussion with only the central and southern portions. It is a land of alternating fat and lean years where there has evolved a unique spiritual climate—an area of conflict and change, where there is no strengthening social force to bind people into a large smoothly functioning group. Ranchers and farmers have been unfriendly. There is no unity of action between industry and other groups. European humid-area schemes of settlement replaced the ranching economy which once flourished. The wrong type of land settlement program was superimposed on an area unsuited to 160 and 320 acre homesteads.

Hunting by Indians on horseback and ranching by white men were the only two cultures that ever proved themselves in the Great Plains until irrigated farming developed late in the 19th century. The flexibility inherent in the first two economies made it possible for them to survive.

For 40 years the Great Plains region has been the number one problem area in the United States, but conservation ranchmen have found the solution to Great Plains needs. One of these is A. P. "Red" Atkins, Guymon, Oklahoma, past president of the American Society of Range Management. If all ranchmen followed Red's example of conservation land management there would be fewer land problems in the Great Plains.

Unprotected crop land is the greatest problem. While many conservation farmers have learned how to farm and protect such land, there will be no stability in the Great Plains until most farmers practice crop land conservation and ranges are grazed less heavily.

In 1879 Major John Wesley Powell suggested a land classification which would have permitted disposition of grazing land in units large enough to support a family. Powell's idea was that such a unit should not be less than 2,560 acres in size. When annexed to the United States, Texas held on to her land which later was sold to settlers. A man declaring himself a farmer got 177 acres; if he called himself a rancher he could obtain 4,440 acres for the sum of $180.00.

One of the notable events of settlement was the Oklahoma Run of April 22, 1889. A large area of the Indian Territory was released by the United States Government for homesteading. Some 50,000 people took part in the "run." Each was seeking to be the first to settle on one of the 160-acre homestead tracts. This acreage obviously was too small to support a family.

Texas ranges filled up with Spanish cattle following Texas independence and condition of ranges declined. Marketing was soon a major problem but a few hide and tallow factories were established on the Texas gulf coast which provided a small outlet.

A few herds were trailed to New Orleans prior to 1821. By 1840 numerous herds were driven to Shreveport, Louisiana, and loaded on flat boats for New Orleans. This became the major market for Texas cattle for the next 12 years. Price received by some trail drivers was $10 per head for steers delivered at Shreveport. The buyers often received $45 for them at New Orleans.

Thousands of Texas cattle were driven to California after

the Gold Rush. In 1856 cattle bought in Texas for $14 per head brought from $60 to $150 a head in California.

Between 1842 and the start of the Civil War thousands of cattle were trailed to Missouri and Kansas, many of these eventually winding up in Kansas City and points as far east as New York City. During the war, Texas numbers increased to 6 million head and cattle went begging for markets and often sold from $4 to $5 per head.

With the close of the Civil War, reduction of buffalo herds and settlement of the central and northern Great Plains, Texas trail herds flooded north over four major cattle trails. Ten million head were moved by this method during the next 30 years. During this period the cowboy of American folklore came into being. He worked cattle mean as buffaloes, bucked drought, floods, rain, snow; dodged lightning; and risked his life in cattle stampedes. He found Indians, outlaws, and rustlers and dickered for protection against tick quarantines. For occasional fun he loaded up on poisonous trader's whiskey, shot up towns, gambled and patronized floozy parlors. His constant companions were his horse and six shooter. It seems that his dare-devil riding, shooting and hell-raising escapades were the attributes that identified him as the key American folklore hero.

The gun toting cowboy had a short tenure on the American scene but he is now immortalized in story, rhyme, song, theatre, television and movies. Revenue every five years from these sources probably brings in more cash than the whole 10 million head of Longhorn cattle that went up the trails out of Texas during the Trail Driving era, the time when the cowboy made his name in American folklore.

Perhaps it was the Colt 45 or the handgun which gave the cowboy independence and made men of all sizes equal except for one thing — the speed of their draw. The cowboy became half knight, half outlaw, a Robinhood on horseback. The reckless freedom that a horse and gun gave him appears to have been the features that made him immortal.

Ernest S. Osgood says, "The range cattleman has more solid achievements to his credit than the creation of a legend. He was the first to utilize the semi-arid plains. Using the most available natural resource, the native grasses, as a basis, he built up a great and lucrative enterprise, attracted eastern and foreign capital to aid him in the development of a new economic area, stimulated railroad building in order that the product of the ranges might get an eastern market, and laid the economic foundation of more than one western commonwealth."

As the breeding herds filled the ranges, ranches developed and a form of feudal ranching economy reigned until the sodbuster and nester moved in. Barbed wire and fenced ranges forced ranchmen to settle down in one locality. Competition forced the Longhorn cowman to better breeding and ranching methods. Durham bulls were brought in from the East to improve the beef-producing qualities of range cattle. The central and southern Great Plains have continued to be largely cow and calf operations.

Later as the superior rustling qualities of the Hereford were recognized and bull supplies were available, this breed soon dominated the ranching country. Angus cattle have been rapidly increasing in the ranch country for the last 15 years.

Crossbreeding with Brahma cattle has been carried on for over 60 years in the Southern Great Plains. The crossbred with Brahman blood is liked by border ranchers for these cattle stand the heat and insects better, they think, than English-bred cattle. Several new breeds have been developed from Brahma and English cattle. These breeds are concentrated in southern United States from California to the Atlantic Coast but are being tried out over the nation. Charolais, the large cream-colored French beef breed, is becoming popular in crossbreeding. There are only around 3500 registered Charolais in the United States.

With the break-up of free range brought on by homesteading and fencing came the era of ranch improvement practices. Introduction of the windmill opened up large areas to year-around use and fences kept herds from straying. Use of supplemental feed as a safeguard against drought and heavy snows increased. Actually this has tended to put more pressure on ranges because too often such areas have been turned into big feeding grounds causing a loss in range condition.

As United States cattle numbers increased meat processing plants for grass beef became necessary. A slaughter house was built in Chicago 1827. Later, cattle rolled out of the Great Plains to Chicago and enlargement of Chicago stockyards followed in 1864. During the 1870's Swift and Armour began shipping beef in "ice boxes on wheels" from Chicago to challenge eastern meat competition. Commission firms developed along with stockyards. Stockyards operators and packers gradually set up business in Kansas City, Omaha, Denver, Sioux City, St. Joe, Fort Worth, San Antonio, Houston, and Oklahoma City. Recently thousands of local cattle auctions have sprung up to supplement central markets.

In the 1860's and 1870's the railroads tapped the heart of the Great Plains, drew off herds

to market and by 1890 most trail driving was over. Livestock organizations came into being; the first was in Wyoming in the 1860's.

At present the range livestock business is a thriving major industry and that in the Great Plain compares with the rest of the country as follows:

Area	Cattle	Sheep
United States	93 million	31 million
Great Plains	31 million	15 million
Southern Great Plains	18 million	8 million

Since domesticated animals were introduced, Great Plains ranges have lost productivity. Loss of good range plants has been greatest in the southern part, least in the northern part. Both the Federal Government and organized ranchers began range improvement programs as early as 1900, but there have been increases since 1930.

Research on range started much later than on crops and livestock, but two range experiment stations were started in 1898 by the U. S. Department of Agriculture under H. L. Bentley and Jared Smith. One of these was in Channing, Texas, in the Panhandle and the other at Abilene, Texas, in the rolling red plains. A system of deferred rotation grazing was practiced on part of the pastures. Both late and early deferments were used on two different pastures. One area was cut with a disk harrow, cattle were held off until June 1, and then grazed until winter. Filaree and burr clover were seeded on native sod in some pastures.

A committee of stockmen was appointed to set up stocking rates and to make follow-up range checks. A 3-year experiment was planned. The only results reported show that disked pasture produced about 25 percent more grass than the undisked area. Resting and alternate grazing were the two major practices used. Hay and silage were used to supplement native grass. Stock water developments were added.

These early stations recommended long-term leases of rangeland to enlarge small personal holdings. No report is available on results of these experiments. Other major experiment stations started range research as follows:

1912—U. S. Department of Agriculture, Jornado, New Mexico

1912—U. S. Department of Agriculture, Akron, Colorado

1920—Colorado State, Ft. Colins, Colorado

1920—Manhattan and Hays, Kansas

1926—New Mexico A&M Range Station

1930's—U. S. Forest Service, Nunn, Colorado

Soil Conservation Service, Bushland, Texas

Southern Great Plains, Woodland, Oklahoma

Texas A&M, Barnhart, Texas

1940's—Soil Conservation Service, Cheyenne, Oklahoma

Texas A&M, Sonora, Texas

Range courses are being taught in colleges in all Great Plains States, supplying greatly needed range men.

Federal assistance to range programs has come under several different programs:

Bureau of Plant Industry, Forest Service, and Agricultural Research Service, since 1900.

Soil Conservation Service, Agricultural Adjustment Administration (now ACP) during the 1930's. Also, the Bureau of Land Management.

Soil Conservation Districts, farmer and rancher organized conservation entities set up under State laws cover most of the Great Plains.

During the 1950's soil bank programs were added to ACP activities and watershed and the Great Plains conservation programs have become important appendages to Soil Conservation Service responsibilities.

The Great Plains region is an area of unsolved opportunity where the potential is as great as men want to make it. A large part of it is unsuited to cropping and must always remain as rangeland.