Chapter 2: Range Management History

1. Origin of Range Science
2. Chronological History of Livestock Grazing in USA.
4. Land Ownership in the USA

Range Management History

1540  1. Coronado brings first cattle and horses into the West by way of New Mexico
1650  1. Wild Horses are common on the Great Plains and in the Southwest.
1790’s  1. Cattle and sheep are brought into the Northwest (Oregon).

Figure 2.1: Bison were the primary native grazing animal of the central Great Plains. Accounts by early explorers indicate how grazing damaged the range in some areas.
Range Management History cont.

1860's
1. Civil war
2. Homestead Act of 1862 that allowed settlers to obtain 160 acres of Government land after 6 months residence.
3. Transcontinental railroad Act of 1862 results in completion of railroad into Kansas in 1866 and across US in 1868. Large numbers of Longhorn cattle are driven from Texas to Kansas in the late 1860's.
4. Morrill Act of 1862 set up land Grant Colleges

Range Management History cont.

1870's
1. The Indian problem on the Great Plains is settled by the late 1870's permitting rapid expansion of the livestock industry.
2. Phenomenal increases in livestock numbers occur on lands.
1880's
1. Peak numbers of cattle occur on most western ranges
2. Cattle numbers are greatly reduced on the Northern Plains and Palouse prairie by the severe winter of 1884-1885.
3. Severe overgrazing occurs on most Western Ranges.
Range Management History cont.

1890’s
1. A great reduction in the range resource
2. Sheep numbers on the range increase drastically
3. Ranchers begin to grow hay for the winter
4. Overgrazing is widely recognized
5. Forest reserves set aside in 1891 for grazing.

Range Management History cont.

1900-1920
1. Grazing studies are initiated
2. 1905 The forest service is formed and cattle and sheepmen are given separate allotments
3. Arthur Sampson, the father of range management conducts studies involving deferred grazing in Oregon (1906)
4. Enlarged Homestead Act of 1909 (320 acres; ¼ must be cultivated).
5. Frederick Clements and James Weaver develop theories of plant succession.
6. Stockraising Homestead Act of 1916 (640 acres /50 cows)
Range Management History cont.

2. Formation of Society for Range Management 1948

1940’s 1. Development of 2, 4D for noxious plant control
2. Formation of Society for Range Management 1948

1950’s 1. Terrific improvement in Range Resource

Figure 2.3 An early 1930s dust storm in Colorado. Inappropriate plowing of the western Great Plains resulted in the natural drought cycle that caused the onset of these storms. (Photo courtesy of the U.S. government.)

Figure 2.4 Land in Oklahoma severely damaged by wind erosion during the early 1930s Dust Bowl era. (Photo courtesy of the U.S. government.)
Range Management History cont.

1960’s 1. In the early 1960’s the multiple use concept is made a mandate for management of Federal Lands (Multiple Use Act of 1964).
2. Accelerate concern over Management of Natural Resources leading to National Environmental Policy of 1969.
3. Development of Range Management in other countries

1970’s 1. Drastic reduction in livestock numbers on public Lands
2. Great improvement in private rangelands
3. Concern over world population explosion

Range Management History cont.

1980’s 1. Rangelands become increasingly important for water and red meat production.

1990’s
1. Rigorous enforcement of Endangered Species Act
2. Large losses of rangeland to development
3. Rapid decline in profitability of range/livestock production
4. Rapid growth in profitability of recreation on rangeland
5. Increase in conflicts over how public rangelands will be used.

Range Management History

1980’s and 1990’s

   a. Change from Socialistic to Free Market Economy
   b. Government downsizing (reduced spending on public rangelands)
   c. Lower taxes
   d. Deregulation
   e. Free trade
   f. Fall of Communism
   g. Rapid expansion of government and private debt
   h. Restoration of supply of basic commodities (food, oil, minerals, etc.)
Range Management History
1980’s and 1990’s cont.

2. Shrinkage of open space
3. Increased demand for recreation on public rangelands
4. Explosion of new technology
5. Increased conflict over public rangeland use
6. Low inflation and slow sustainable growth in economy
7. Major improvement in public and private rangelands in USA

Why Progress in Improving Rangeland Has Been Slow

1. Range Ecosystems are highly complex and have considerable variation.
2. Funding allocated to studying range problems has been low when compared to other areas of natural resource management.
3. Government agencies have been forced to allocate much of their monetary and personnel resources into developing environmental impact statements rather than directly into range improvements.
Why Progress in Improving Rangeland Has Been Slow cont.

4. Until recently range management principles were not widely applied on private lands.
5. Methods available to study range ecosystems are often crude and many range experiments require several years before any conclusions can be reached.
6. Unsound government policies have created incentives for land mismanagement.

Important Congressional Acts Influencing Rangeland use and Management in the USA

1. Homestead Act - 1862 granted 160 acres after 5 years residence; encouraged large numbers of people to move west for farming purposes.
2. Morrill Act - 1862 set up the land grant colleges (provided land for these institutions).
3. Transcontinental Railroad Act - 1862 large acreages of land were granted to railroads to provide incentives for railroad construction in the west, this resulted in rapid transportation for large numbers of people to come West.
Important Congressional Acts Influencing Rangeland use and Mgmt in the USA cont.

4. Forest Reserves Act - 1891 set aside forested areas for timber and grazing privileges were allocated to ranchers on these areas.

5. Enlarged Homestead Act - 1909 granted 320 acres and required ¼ to be cultivate; designed to promote farming on remaining federal land; caused rangeland destruction by cultivation of land not suited for farming.

6. Stockraising Homestead Act - 1916 granted 640 acres for purpose of raising 50 cows, caused rangeland destruction because 640 acres would not support 50 cows in most areas.

7. Taylor Grazing Act - 1934 allocated grazing privileges on unsold government lands in the West on the basis of the ranchers ability to provide water (southwest) or hay (northwest); this act was passed as the result of actions by ranchers concerned about range deterioration.

8. Soil Erosion Act - 1935 set up soil conservation service to deal with soil erosion problems on private lands.

Important Congressional Acts Influencing Rangeland use and Mgmt in the USA cont.

9. Multiple Use Act - 1964 mandated that federal lands be managed for several purposes rather than single use.

Land Fact Sheet For USA

*40% of all land in the U.S. (Alaska included) is in public ownership.
*32% of all land in the U.S. (Alaska included) is federally owned.
*58% of all lands in the U.S. (Alaska included) are privately owned.
*8% of all lands in the U.S. (Alaska included) are state, county and city owned.

Land Fact Sheet For USA cont.

2% of all lands in the U.S. (Alaska included) are Indian reservations.
52% of all federally owned lands are in the contiguous U.S.
47% of all federally owned lands are in Alaska
89% of the federally owned land in the contiguous U.S. is in the 11 western states.

Land Fact Sheet For USA cont.

*The Bureau of Land Management has the most federal land - 47%
*The Forest Service is second - 26%
*The Fish and Wild Life Service is third - 12%
• This is information that should be retained for later purposes
• The previous figures are based on 1982 information and may deviate from present acreages slightly due to land sales and acquisitions and rounding off.
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<th>Rank</th>
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*Indicates that the state is predominantly in the Western United States.*

**Figure 2.7** Public lands presently administered by the USDI—Forest of Land Management. (Courtesy of USDI—Forest Service 1996.)

**Figure 2.8** Public lands presently administered by the USDI—Forest Service. (Courtesy of USDI—Forest Service 1996 and Hoadley et al. 2005.)
RANGE MANAGEMENT CHALLENGES IN 21ST CENTURY

1. Sustaining ranching as an occupation and way of life.
2. Preservation of open space.
3. Prevention and resolution of social conflicts over usage and management of natural resources.
4. Maintaining and improving the health of rangeland ecosystems.
5. Preservation of threatened and endangered species.

RANGE MANAGEMENT CHALLENGES IN 21ST CENTURY cont.

6. Expansion of supply of rangeland products as follows:
   a. livestock products
   b. recreation
   c. wildlife
   d. water
   e. esthetics
   f. other