

**US & Canada:
Great Plains and Prairies
(Ch.13)**



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What states and provinces are part of the region?

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What regions does it border?

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Overview

- Flat area, sloping from west to east
- Unreliable climate for agriculture
- Most rural areas becoming abandoned
- Few areas with significant growth

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Physical setting

- General Plain with slope of 10 feet / mile
 - 6000 feet west
 - 1500 feet east
- Also, differentiated between glaciated and unglaciated landscapes
- In much of area, river valleys represent principal differences in terrain

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Glaciated Missouri plateau

- North of Missouri River
- Flat topography, moraines and lakes



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Unglaciaded Missouri plateau

- South of Missouri River
- Rougher terrain



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Extrusions of Rockies

- South Dakota
Northward
- Black Hills most famous
- Similar history to Rockies, but situated in Plains



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Climate

- Large interannual variability in precipitation
- Drier as you move westward
- Extremes of weather, summer and wintertime
- Many hazards

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Climate comparison

	Akron	Edmonton	Denver	Del Rio, TX
Jan Temp	33 / 17	18 / -3	43 / 15	63 / 39
Jul Temp	82 / 61	72 / 49	88 / 58	96 / 74
Rainfall	38 in.	19 in.	16 in.	18 in.
Snowfall	45 in.	48 in.	60 in.	1 in.

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Drought



- Dust Bowl: 1930s
- Later droughts in '50s, '70s



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Hail and Blizzards



Standing tall on North Dakota snow -- a March blizzard nearly buried utility poles.

- Hailstorm frequency greatest Wyo.-Colo.
- Blizzards greatest in Dakotas

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Flooding



Grand Forks, ND, 1997:
Red River 26 feet above
flood stage



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Natural vegetation: Prairie

- Tallgrass
 - Wetter east



- Shortgrass “Steppe”
 - Drier west

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Wildlife

- Buffalo / American Bison
 - Once 50,000,000 strong
 - Hunted to near-extinction
 - Back to 250,000
- Other large hoofed mammals
 - Antelope, elk, sheep
- Beaver, other furry animals
 - Attracted early trappers
- Much waterfowl
 - Glaciated areas



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Native population

- Plains Indians
 - Dakota
 - Apache
 - Comanche
 - Many others
- Hunters and farmers
- Frequently battled other tribes



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Decline of natives

- Crowded when eastern Indians pushed west
- Much more belligerent after horses were acquired
- Disease brought by Europeans
- Food shortage after buffalo decimation
- Forced out by European settlers

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“Indian Territory”

- Last area for natives
- 1876: Oklahoma minus Panhandle
- 1889: “Oklahoma Territory” took half of land
- 1907: Oklahoma becomes a state



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Europeans

- Settled first in Texas (then part of Mexico)
 - San Antonio 1718
- Slow inward migration elsewhere
 - Some settlement in eastern parts
 - Most were passing through to west coast
- Cowboys ranching began in 1860s
 - Large trails developed
 - Ranches, settlements followed
 - Texas north to Kansas and Nebraska

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Europeans

- Railroad towns
 - Built up around ranch market



Europeans

- Next comes the farmers: Wheat
 - Much ranchland moved west
 - Between WWI and Dust Bowl, much of Plains planted
- Exodus
 - Farming decimated by Dust Bowl
 - Many people leave, move west
 - Much land never returned to farming

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Canadian Settlement

- Westward migration didn't begin until 1870s
 - Aimed to keep western Canada from America
 - Strongly promoted by government
 - Picked up as railroad completed



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Canadian Settlement

- Immigration rules relaxed to encourage settlement
- 160 acres for \$10 if you farmed it
- Many groups settled
 - Asians (Chinese, Japanese)
 - Europeans (Ukrainians, Scandinavians)
 - Religious groups (Hutterites, Mormons)

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Present population

- Mostly European
- Very little Asian, African population
- Large Hispanic population in Texas
- Large Native population in places
 - Oklahoma, South Dakota

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Trends

- Booming metropolitan areas
 - Denver, San Antonio, Calgary
- Severely declining smaller towns and rural areas
 - Smallest county in US: Loving, TX (67)
- Native population on increase
 - 3 of 4 states that have counties where natives are in Majority are here (Nebr., S.D., N.D.)
 - 11% of Oklahoma's population

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Reversion of the Plains

- Natives replacing cattle with buffalo
- Eliminating fences to permit more roaming
- Restoring ecosystem of earlier
- Buffalo at highest count in 120 years

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Population numbers


State/Metro Area	2000	1990	Change
Alberta	3059	2545	+17%
Saskatchewan	1017	988	+3%
Montana	902	799	+12%
North Dakota	642	638	0%
South Dakota	754	696	+8%
Denver, Colorado	2852	1980	+30%
Wichita, Kansas	545	485	+12%
Oklahoma	3450	3145	+9%
Lubbock, Texas	242	222	+9%
San Antonio, Texas	1592	1324	+20%
US & Canada	312,600	276,700	+13%

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Agriculture / Livestock



- More acreage to livestock than agriculture
- Much irrigation necessary with most crops
- Soils excellent

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Wheat

- Dominant crop of area
 - Winter wheat: south, moving north
 - Spring wheat: Dakotas, Manitoba
- Grows well in dry conditions
- Need to have fields fallow to recharge water
- Much harvested by migrant crews




Wheat for Grain: 1997

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Irrigated Crops

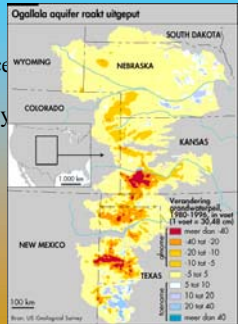
- Central Pivot Irrigation
- Some distinct crops
 - Alfalfa
 - Cantaloupes
 - Sugar Beets
- Other crops that grow more readily to the east
 - Cotton in West Texas
 - Corn in Nebraska



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Water resources

- Ogallala Aquifer
- Significantly depleting since 1930s
- Wells need to be continually dug deeper
- Competition for remaining water
- Lubbock may run out of drinking water



Livestock

- Cattle
 - Increase in feed lots
 - Cattle's entire lives now spent in area
- Sheep
 - On more marginal lands
- Goats
 - Texas Hill country

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Mineral industries

- Gold in Black Hills, S.D.
- Oil and natural gas
 - Throughout Plains area
 - Big concentrations in Alberta and Texas
- Coal
 - Wyoming and Montana fastest growing regions
 - Catching up to Appalachian areas

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Tourism

- Limited
- “Gateway” cities: Denver, Colorado Springs, Calgary, Edmonton
- Black Hills, S.D.



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Cities

- Originally developed along rail lines
- Only certain cities burgeoned
- Those cities still booming
- 3 primary US cities
 - Denver, San Antonio, Oklahoma City
- 3 primary Canadian cities
 - Winnipeg, Edmonton, Calgary

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Denver

- Over 2 million, largest in area
- Founded because of gold rush, positioned itself as supply and transportation hub
- Grew from 4,000 to 100,000 in 20 years
- Main regional financial and government center
- Gateway to Rockies, though in Plains



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Calgary and Edmonton



- Capitals of Oil and gas industry
- Both near 1 million people
- Calgary:
 - population nearly doubled in '70s and '80s after Oil Embargo
 - hosted 1988 Olympics
 - Highest science / engineer population in Canada
 - “Cowboy town”
- Edmonton
 - Positioned as mercantile center to North (Alaska highway)

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Outlook

- Booming cities
 - Oil and gas towns will continue to grow
- Declining rural areas
 - Many towns will disappear
- Reversion to the frontier
 - Increased native population, bison

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