

# MAJOR USES of LAND in the UNITED STATES

**SUMMARY FOR 1969**

Tri-Agency Reading Room

Date \_\_\_\_\_

Room 505

500 12th St., SW

Washington, D. C. 20250

## Abstract

This report summarizes the extent and distribution of major land uses in the United States and, by comparison with earlier land use inventories, documents the changes and trends in land utilization. The entire land area of the country is broadly classed as cropland, grassland pasture, forest land, special uses, and other land. Numerous subclasses reflect component agricultural and nonagricultural uses. Distribution patterns and trends are shown by aggregating and comparing acreages of individual uses at the regional and national levels. State-by-state acreages in various component uses are presented in appendix tables. Among principal sources of data used were reports and records of the Bureau of the Census, U. S. Department of Commerce; Bureau of Land Management, U. S. Department of the Interior; and several agencies of the U. S. Department of Agriculture. Supplemental data were obtained from numerous other Federal and State agencies.

**Keywords:** Land utilization, cropland, pastures, forest, trends, ownership, regional distribution.

## Preface

This report continues a series on the major uses of land in the United States, published at 5-year intervals by the Economic Research Service and its predecessor agencies. As in earlier publications in the series, this one brings together data from numerous sources to form a summary account of the extent and distribution of land used for crops, pasture and range, forestry, and various special-purpose uses. By comparison with earlier studies, important changes and trends in land use also have been identified and measured.

Among the principal sources of data used are reports and records of the Bureau of the Census, U. S. Department of Commerce; Economic Research Service, Forest Service, Soil Conservation Service, and Statistical Reporting Service, all of USDA; and the Bureau of Land Management, U. S. Department of the Interior. Reports of the Bureau of the Census provided basic data on the use of land in farms (47 percent of total land area). The other principal sources provided supplemental information on the use of land in farms, and extended coverage

to much of the remaining land area. Data from numerous other Federal and State agencies were used to complete the land-use profile of the country.

Although the estimates of land use in 1969 were developed with the objective of maintaining comparability with published estimates for previous years, this objective was not always attained. Comparability is affected by the variable characteristics of data available over time. For example, data from the 1969 Census of Agriculture differ from those of earlier Censuses because of the substitution of mailed questionnaires for personal interviews, a reduction in the amount of detailed information obtained for part-time and abnormal farms, and other reasons. The reader should also keep in mind that the available data on major land uses do not fully convey the highly dispersed pattern of uses, the innumerable relationships between uses, or the wide variation in land quality and intensity of use, particularly in relatively small areas.

## Contents

	Page
Summary .....	v
The country as a whole .....	1
Present land use .....	1
Trends in major land uses .....	3
Basic land use patterns .....	6
Cropland .....	6
Major uses of cropland .....	6
Cropland uses, by regions .....	8
Trends in major uses of cropland .....	8
Trends in cropland used for crops, by regions .....	9
Changes in composition of crops harvested .....	13
Pasture and range resources .....	13
Regional distribution, by major pasture type .....	15
Changes in pasture and range acreages .....	15
Forest land .....	16
Special and miscellaneous uses .....	16
Special use areas .....	16
Rate of growth of special use areas .....	17
Miscellaneous other land .....	18
Major uses of land, by class of ownership .....	18
Definitions and explanations of land use classes .....	19
Literature cited .....	21
Appendix .....	22

## Tables

	Page
1. Major uses of land, United States, 1969 . . . . .	1
2. Agricultural and nonagricultural uses of land, United States, 1969 . . . . .	2
3. Major uses of land in farms and not in farms, United States, 1969 . . . . .	3
4. Trends in major uses of land, United States, selected years . . . . .	4
5. Major uses of land, by regions, United States, 1969 . . . . .	7
6. Cropland uses, by region, United States, 1969 . . . . .	8
7. Major uses of cropland, United States, census years, 1949-69 . . . . .	9
8. Cropland used for crops, by region, 48 States, 1949-72 . . . . .	11
9. Crops harvested, by type, 48 States, census years, 1945-69. . . . .	13
10. Pasture and range, by type and region, United States, 1969 . . . . .	14
11. Total pasture and range, by type, United States, census years, 1950-69 . . . . .	15
12. Special use areas, United States, estimates for 1969 . . . . .	17
13. Special use areas, United States, 1959 and 1969. . . . .	18
14. Major classes of land, by use and ownership, United States, 1969 . . . . .	19

## Appendix Tables

	Page
1. Major uses of land, by State and region, United States, 1969 . . . . .	22
2. Major uses of land in farms, by State and region, United States, 1969 . . . . .	24
3. Major uses of land not in farms, by State and region, United States, 1969 . . . . .	26
4. Major uses of cropland, by State and region, United States, 1969 . . . . .	28
5. Pasture in farms, by type, State and region, United States, 1969 . . . . .	30
6. Total pasture and range, by State and region, United States, 1969 . . . . .	32
7. Federal pasture and range, by type, State and region, United States, 1969 . . . . .	33
8. State land used for farming and grazing, United States, 1968 . . . . .	34
9. Forest land in farms and not in farms, by State and region, United States, 1969 . . . . .	35
10. Land in special use areas, by State and region, United States, 1969 . . . . .	36
11. Cropland used for crops and crop production per acre, 48 States, 1909-72 . . . . .	38
12. Crops harvested, 48 States, census years, 1954-69 . . . . .	40
13. Irrigated land in farms, 17 western States and United States, census years, 1949-69 . . . . .	41

## Figures

	Page
1. Major uses of land, United States, 1969 .....	4
2. Land use, United States, 1900-1969 .....	5
3. Major uses of all land, by regions, 48 States, 1969 .....	7
4. Major uses of cropland, United States, 1949-69 .....	10
5. Cropland used for crops, 48 States and regions, 1949-69 .....	12

## Summary

The land area of the United States comprises approximately 2,264 million acres. About 57 percent of the area is used to produce crops and livestock and nearly one-fourth is ungrazed forest land. The rest is distributed among urban and transportation uses (less than 3 percent); recreational, wildlife, and other extensive-type special uses (5 percent); and essentially unused areas (13 percent).

One-fifth of the land area is in the crop rotation, but not all of it is used for crops each year. In 1969, cropland used for crops totaled 333 million acres, or 71 percent of the cropland base. The acreage used for crops was 26 million acres less than in 1959 and 54 million acres less than in 1949.

Cropland used for crops decreased sharply during the 1950-62 period, primarily in response to Federal programs designed to divert cropland from production. Since 1962, the acreage used for crops has fluctuated by several million acres annually, more or less in balance with demand for crop production.

Pasture and range acreages totaled about 890 million acres in 1969, or 39 percent of the land area. This total includes grassland used primarily for grazing (604 million acres), cropland used alternately for pasture (88 million acres), and forest land used secondarily for grazing (198 million acres).

The total acreage of land used for pasture and range declined 54 million acres, or 6 percent, in the last decade. However, most of the net decrease is attributable to the removal or reclassification of low-forage-yielding areas, principally woodland, from grazing use. The remaining acreage was significantly upgraded by gradual substitution of inherently better land, brush clearing, fertilization, and other means.

Special nonagricultural uses of land occupied 169 million acres in 1969, and continue to increase in importance as the Nation's population increases. One-

third of this total is in urban and transportation uses. Each year, about 1.2 million additional acres of all types of land are occupied by urban areas, rural highways and roads, airports, and reservoirs. Urban growth alone accounts for three-fourths million acres; reservoirs take much of the remainder of the land in special uses.

Extensive-type special uses increased 20 million acres during the 1960's. Virtually all of the increase occurred in park and wildlife areas; more than half of the increase was reserved from public domain wildlands in Alaska for wildlife purposes. Other acreages in extensive special uses changed little, as small gains in Federal industrial and State institutional areas were offset by attrition in national defense areas. Apart from the unusually large increase in the acreage in Alaskan wildlife refuges, gains in extensive special use areas averaged about 1 million acres annually.

One-third of the area of the United States is forested. The total acreage of forest land has not changed greatly in several decades, but important changes in the relative proportions of forest land and other major uses have occurred at regional and local levels. Since 1950, substantial acreages of open land have reverted to forest, particularly in regions east and south of the Corn Belt. Those gains have been largely but not completely offset by land clearing for urban and other uses in these and other regions. In the last decade, several million acres of forested wetlands in the Delta Region were cleared for crop use.

Three-fifths of the land area of the United States is in private ownership and two-fifths is owned by Federal, State, and local governments. Nearly 99 percent of the cropland, 61 percent of the grassland, and 56 percent of the forest land are in private ownership exclusive of Indian tribal and trust lands. Large acreages of grassland, forest land, and wasteland, plus much of the special-use acreage, are publicly owned.

# MAJOR USES OF LAND IN THE UNITED STATES SUMMARY FOR 1969

by

H. Thomas Frey, Geographer  
Natural Resource Economics Division  
Economic Research Service

## The Country as a Whole

This publication summarizes the findings of an inventory of major land uses in the United States as of 1969. By comparison with similar studies for earlier years, significant changes and trends in land use also are identified. The findings are presented briefly at the national level of aggregation and then treated in more detail at the regional level. State-by-state acreages for individual major uses of land are shown in the appendix tables.

### Present Land Use

The land area of the United States totals approximately 2,264 million acres.<sup>1</sup> This vast, physically diverse area can be grouped in five broad use categories as follows: cropland, including cropland used only for pasture, 472 million acres; grassland pasture and range, 604 million acres; forest land exclusive of reserved areas in parks and other special uses, 723 million acres; urban, transportation, recreation, and other service-type uses, 178 million acres; and miscellaneous other land, 287 million acres (table 1, fig. 1).

Because of multiple and alternate uses of land, additional breakdown of the five primary use categories is needed to fully distinguish between agricultural and non-agricultural uses (table 2). Overall, agricultural uses occur on 1,283 million acres, or 57 percent of the land area. This total includes land in the crop rotation, all types of pasture and range, and a small acreage in closely related uses. If forest land not grazed is included, agricultural uses account for 80 percent of the land area.

<sup>1</sup>As reported by the U. S. Bureau of the Census (6). The land area includes all dry land; land temporarily or partly covered by water, such as marshland, swamps, and flood plains; linear water areas less than one-eighth mile wide; and other water bodies with less than 40 acres of surface area. (Italicized numbers in parentheses refer to items of literature cited.)

Table 1—Major uses of land, United States, 1969

Major land use	Acreage	Percentage of total
	Million acres	Percent
Cropland <sup>1</sup> . . . . .	472	20.9
Grassland pasture and range <sup>2</sup>	604	26.7
Forest land <sup>3</sup> . . . . .	723	31.9
Special uses <sup>4</sup> . . . . .	178	7.9
Miscellaneous other land <sup>5</sup> . .	287	12.6
Total land area <sup>6</sup> . . . . .	2,264	100.0

<sup>1</sup>All land in the crop rotation. This total is higher than the 438 million acres reported by the Soil Conservation Service for 1967 (11), due primarily to the inclusion of larger acreages classified as cropland used only for pasture.

<sup>2</sup>Permanent grassland and other nonforested pasture and range.

<sup>3</sup>Excludes 31 million acres of reserved and other areas duplicated in special-purpose uses. Total forest land is shown in appendix table 9.

<sup>4</sup>Urban and transportation areas, areas used for recreation and wildlife purposes, various public installations and facilities, farmsteads, and farm roads.

<sup>5</sup>Marshes, open swamps, bare rock areas, desert, tundra, and other land generally having low value for agricultural purposes.

<sup>6</sup>Includes streams and canals less than one-eighth mile wide; and ponds, lakes, and reservoirs covering less than 40 acres.

Estimates are based primarily on reports and records of the Bureau of the Census and Federal and State land management and conservation agencies.

The 472 million acres classified as cropland represent the acreage available for crops or used alternately for crops and pasture, rather than the acreage annually used for crop production. In 1969, the land used for crop production (cropland harvested, crop failure, and cultivated summer fallow) totaled 333 million acres, or 71

Table 2—Agricultural and nonagricultural uses of land, United States, 1969

Major land use	Acreage	Percentage of total
	<u>Million acres</u>	<u>Percent</u>
<b>Agricultural:</b>		
Cropland	472	20.9
Cropland used for crops <sup>1</sup>	(333)	(14.7)
Soil improvement crops and idle cropland	(51)	(2.3)
Cropland pasture	(88)	(3.9)
Grassland pasture and range <sup>2</sup>	604	26.7
Forest land grazed	198	8.7
Farmsteads, farm roads	9	.4
Total agricultural land	1,283	56.7
<b>Nonagricultural:</b>		
Forest land not grazed <sup>3</sup>	525	23.2
Special uses	169	7.5
Urban and other built-up areas <sup>4</sup>	(61)	(2.7)
Primarily for recreation and wildlife <sup>5</sup>	(81)	(3.6)
Public installations and facilities <sup>6</sup>	(27)	(1.2)
Miscellaneous land <sup>7</sup>	287	12.6
Total nonagricultural land	981	43.3
Total land area	2,264	100.0

<sup>1</sup>Cropland harvested, crop failure, and cultivated summer fallow.

<sup>2</sup>Excludes cropland used only for pasture.

<sup>3</sup>Excludes reserved and other forest land duplicated in parks and other special use areas. It was not feasible to eliminate all overlap that exists because of multiple use.

<sup>4</sup>Urban areas; highway, road, and railroad rights-of-way; and airports.

<sup>5</sup>National and State parks and related recreational areas, national and State wildlife refuges, and national forest wilderness and primitive areas.

<sup>6</sup>Federal land administered by the Department of Defense and the Atomic Energy Commission, and State land in institutional and miscellaneous special uses.

<sup>7</sup>Includes miscellaneous uses not inventoried, and areas of little use such as marshes, open swamps, bare rock areas, desert, and tundra.

Estimates are based primarily on reports and records of the Bureau of the Census and Federal and State land management and conservation agencies.

percent of the available cropland. The rest was temporarily idle (51 million acres) or was used only for pasture (88 million acres). The idle component includes much of the acreage diverted under the various production adjustment programs administered by USDA.

Grassland and other nonforested areas used primarily for livestock grazing total 604 million acres, or 27 percent of the Nation's land area. In addition, grazing occurs as a secondary use on 198 million acres of forest land and, as noted above, is an alternate use on 88 million acres of cropland. Collectively, the three major types of pasture and range total 890 million acres, or 39

percent of the total land area.

Although 57 percent of the total land area is used for agricultural purposes, only 47 percent, including some land not classified here as agricultural, is in farms (table 3). Agricultural land not in farms totals 288 million acres and consists of open and forested grazing land. Part of the grazing acreage not in farms represents normal underenumeration but most of it is definitionally excluded in the Census of Agriculture. The major portion of this land is federally owned, and is mainly in grazing districts and national forest system range allotments.

Forest land not grazed, which totals 525 million acres, is the dominant nonagricultural use of land. However, 754 million acres—one-third of the total land area of the United States—is forested. Two-thirds of this larger acreage is classified as commercial by the U. S. Forest Service. The rest is classified as noncommercial because of low timber productive capacity or, as in the case of some public lands, because of legal reservation for recreational and other nontimber uses.

Nonagricultural special-use areas for which estimates were made occupy 169 million acres. One-third of the special use acreage is in urban and transportation uses; one-half comprises areas administered by Federal and State agencies, primarily for recreation and wildlife purposes; and one-sixth is used for various public installations and facilities.

Except for minor uses not inventoried, the remaining 13 percent of the land area consists of marshes, swamps, bare rock areas, desert, tundra, and similar areas characterized by little economic surface use. More than two-thirds of the land in this category is tundra and other unused areas in Alaska.

The proportion of land in various major uses is different for the 48 contiguous States than for the entire United States (fig. 1). For the 48 States, 57 percent of the total land area is cropland and grassland pasture and range, compared with 48 percent for the 50 States. Alaska and Hawaii add less than one-half million acres of cropland and about 3 million acres of grassland pasture. Alaska, however, adds more than 100 million acres of forest land and more than 200 million acres of tundra and miscellaneous other land.

### Trends in Major Land Uses

Periodic changes in major uses of land since 1900 are shown in table 4 and fig. 2. Cropland, exclusive of cropland pasture, increased more than 80 million acres from 1900 to 1920, fluctuated near and above the 400 million level until 1950, decreased 17 million acres or 4 percent during the 1950's, and declined slightly thereafter. The net decrease since 1950 represents a sharp decrease in cropland actually used for crops, and a partially offsetting increase in idle cropland.

Table 3—Major uses of land in farms and not in farms, United States, 1969

Major land use	Land in farms		Land not in farms		Total Acreage
	Acreage	Percent- age of total	Acreage	Percent- age of total	
	Million acres	Percent	Million acres	Percent	Million acres
<b>Agricultural uses of land:</b>					
Cropland <sup>1</sup>	472	100	—	—	472
Grassland pasture and range <sup>2</sup>	452	75	152	25	604
Woodland grazed	62	31	136	69	198
Farmsteads, farm roads	9	100	—	—	9
<b>Total agricultural land</b>	<b>995</b>	<b>78</b>	<b>288</b>	<b>22</b>	<b>1,283</b>
<b>Nonagricultural land:</b>					
Forest land not grazed <sup>3</sup>	50	10	475	90	525
Special uses <sup>4</sup>	—	—	169	100	169
Other land <sup>5</sup>	19	7	268	93	287
<b>Total nonagricultural land</b>	<b>69</b>	<b>7</b>	<b>912</b>	<b>93</b>	<b>981</b>
<b>Total land area</b>	<b>1,064</b>	<b>47</b>	<b>1,200</b>	<b>53</b>	<b>2,264</b>

<sup>1</sup>All land in the crop rotation.

<sup>2</sup>Excludes cropland used only for pasture.

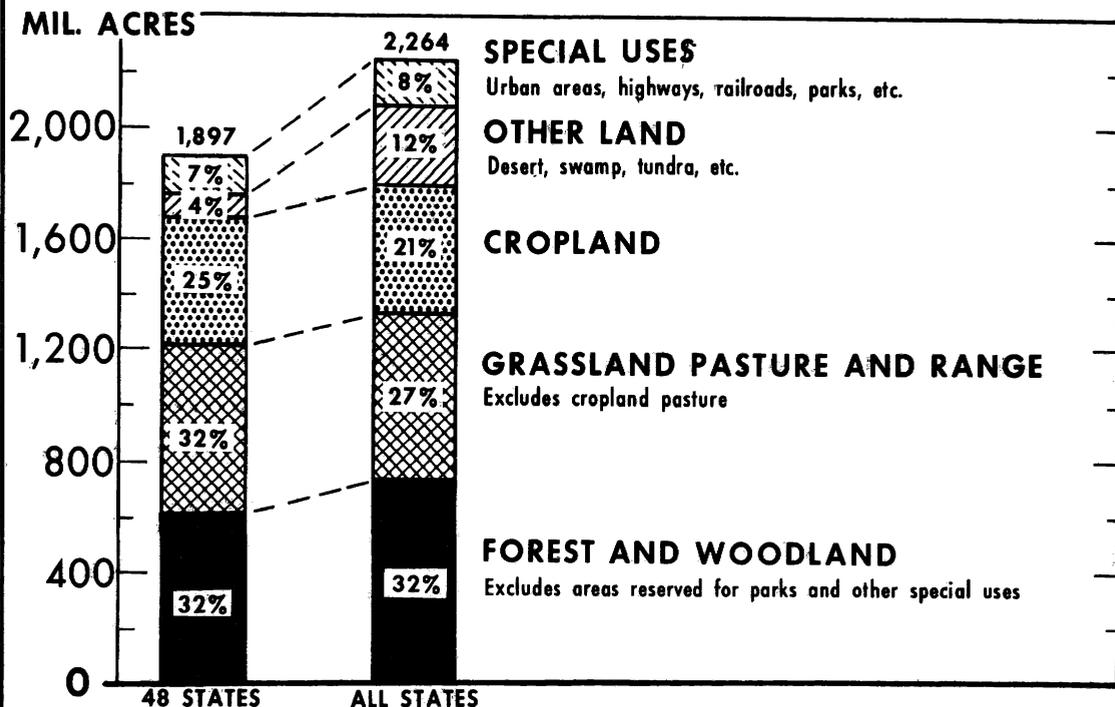
<sup>3</sup>Excludes reserved areas in parks and other special-use areas.

<sup>4</sup>Urban and transportation areas, recreational and wildlife areas, and various public installations and facilities.

<sup>5</sup>Miscellaneous uses not inventoried and marshes, open swamp, desert, tundra, etc.

Estimates are based primarily on reports and records of the Bureau of the Census and Federal and State land management and conservation agencies.

# MAJOR USES OF LAND, UNITED STATES, 1969



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 5575-73 (4) ECONOMIC RESEARCH SERVICE

Figure 1

Table 4—Trends in major uses of land, United States, selected years

Major land use	1900	1920	1940	1950	1959	1969
	<u>Million acres</u>					
Cropland <sup>1</sup>	319	402	400	409	392	384
Available grassland pasture and range <sup>2</sup>	832	731	719	701	699	692
Forest and woodland <sup>3</sup>	719	721	727	721	728	723
Other land <sup>4</sup>	400	416	426	442	451	462
Special-use areas	—	—	—	(138)	(151)	(178)
Unclassified areas	—	—	—	(304)	(301)	(287)
<b>Total<sup>5</sup></b>	<b>2,270</b>	<b>2,270</b>	<b>2,272</b>	<b>2,273</b>	<b>2,271</b>	<b>2,264</b>

<sup>1</sup>Excludes cropland used only for pasture.

<sup>2</sup>Grassland pasture and other nonforested grazing land plus cropland used only for pasture. Includes some idle grassland, particularly before 1920.

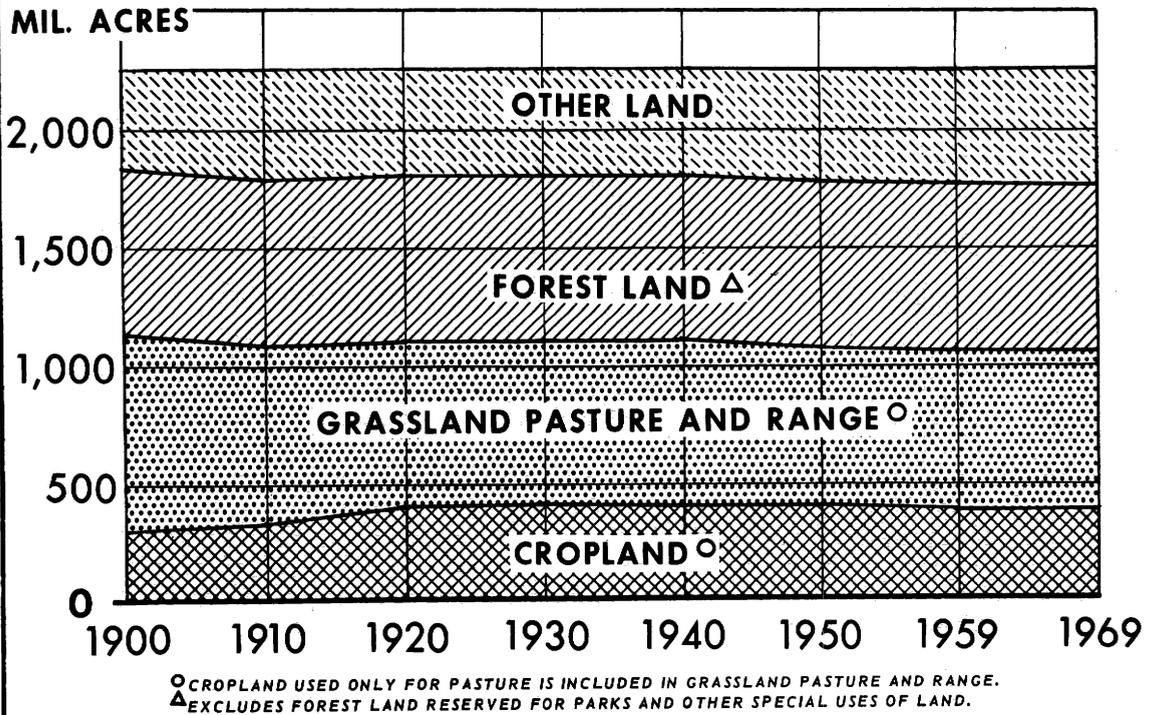
<sup>3</sup>Exclusive of reserved forest land in parks, wildlife refuges, and other special-use areas.

<sup>4</sup>Includes special land uses, such as urban areas, highways and roads, farmsteads, parks, and military reservations, and also land having slight surface-use value (desert, rock, marshes, tundra, etc.).

<sup>5</sup>Changes in total land area are attributable to changes in methods and materials used in occasional remeasurements, and to increases in the area of artificial reservoirs.

Estimates for 1900-1959 are based primarily on Wooten et al.(14), and assume essentially no change in Alaska and Hawaii prior to 1950. The estimates are only approximately comparable.

# LAND USE, UNITED STATES, 1900-1969



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 5576 - 73 (4) ECONOMIC RESEARCH SERVICE

Figure 2

Grassland pasture and range, including cropland used only for pasture, decreased 100 million acres from 1900 to 1920 and decreased an additional 30 million acres by 1950.<sup>2</sup> Grassland pasture acreage has declined about 1 percent since 1950. Changes prior to 1950 were largely attributable to expansion and maintenance of the cropland base. The small net decrease since 1950 primarily reflects the growth of urban and other special uses of land and the re-evaluation of the suitability of some areas for grazing.

The total acreage of forest and woodland has been characterized by relative stability since 1900, although the relationships in table 4 would be somewhat different

<sup>2</sup>Cropland used only for pasture and permanent grassland pasture are combined in this comparison because the two types have not always been successfully differentiated in the Census of Agriculture and in other surveys of agricultural land use. For most purposes, however, cropland used only for pasture is considered an integral part of the total cropland base.

if reserved forest land was included. Substantial acreages of forest land have been cleared since 1900 for crops, pasture, and urban, transportation, and other uses but these losses have been counterbalanced by natural reversion and, sometimes, replanting of open land to trees. In recent years, reversion tendencies have been strong in the Eastern United States; however, widespread urbanization and localized clearing for crops and pasture have effectively offset reforestation in the East as a whole.

Periodic measurements of land in special-purpose uses are not available for all of this century. Since 1950, however, the special uses specified in table 4 have absorbed an estimated 40 million acres, or about 2 million acres annually. Areal expansion in this category has involved all types of land, including wasteland. Nearly half of the total acreage shifted to intensive or largely non-reversible uses such as urban and transportation areas and artificial reservoirs. Most of the remainder shifted to parks, wildlife refuges, and similar uses in-

volving little change in vegetative cover or actual use. In general, the increase in special-purpose uses is associated with increases in the size and affluence of the population.

## Basic Land Use Patterns

Land used primarily for agricultural production (cropland and nonforested grazing land) accounts for nearly half of the nation's land area. Forest land accounts for about one-third and other land for one-fifth, but the proportions vary greatly across the country. Within the distributional patterns of these broad groups, variable proportions of cropland are planted, harvested, grazed, and idle. Other land uses are dual or multiple, as when forest land is used simultaneously for timber production and other purposes such as grazing, recreation, or a source of water. Sometimes, only one use is feasible, as in arid or semiarid areas where field crops and forest are climatically precluded but where land is usable for grazing during some part of the year. As a framework for considering the variable characteristics and distribution of important land use components in subsequent sections, aggregate regional acreages of cropland, permanent grassland pasture, forest land, and other land are shown in table 5 and fig. 3.

### Cropland

#### Major Uses of Cropland

The nation's cropland resources total 472 million acres, or 21 percent of the land area. This total represents neither the acreage actually used in crop production each year nor the acreage that could be used for crops. Rather, it represents the acreage presently in the crop rotation. In any given year, part of the available cropland is used for crops, part is used only for pasture, and the rest is idle. Component acreages of the total cropland base in 1969 were as follows:

	<u>Million acres</u>	<u>Percent</u>
Cropland harvested	286	61
Crop failure	6	1
Cultivated summer fallow	<u>41</u>	<u>9</u>
Total used for crops	333	71
Soil improvement and idle cropland	51	11
Cropland used for pasture	<u>88</u>	<u>18</u>
Total cropland	472	100

Because of crop failure and land preparation requirements, the acreage harvested does not fully identify

the total acreage required in crop production. Cropland used for crops or the land input to crop production is more adequately measured by aggregating three component acreages—cropland harvested (286 million), crop failure (6 million), and cultivated summer fallow (41 million). Thus, the acreage required for crop production in 1969 totaled 333 million acres or 71 percent of the available cropland.

The harvested acreage includes all intertilled and close-sown crops; tree fruits, small fruits, and planted tree nuts including some nonbearing acreages; and wild hay. A small part of the harvested acreage yields more than one crop per year.

Crop failure mainly involves the acreage on which crops failed because of weather, insects, and diseases but this component includes some cropland not harvested because of lack of labor, low market prices, and other factors. Generally, crop failure is only 2 or 3 percent of the harvested acreage but the proportion varies regionally and annually.

Cultivated summer fallow refers to cropland in sub-humid regions of the West that is fallowed for a season or more before small grains are planted. The fallowed land is cultivated to control weeds and to conserve or accumulate sufficient moisture to produce a crop. Acreages of cultivated summer fallow vary from year to year by several million acres, depending largely on the planting intentions of farmers. Other types of fallow—such as cropland planted to soil improvement crops but not harvested, and cropland left idle all year—are not included in cultivated summer fallow.

The rest of the cropland acreage was either used for pasture (88 million acres) or was idle (51 million acres) in 1969. Part of the 51 million acres in idle status was seeded to soil improvement crops but was not harvested or pastured. This practice improves productivity of the land in subsequent years by controlling weeds and increasing organic matter in the soils. Some cropland is idle each year for various physical and economic reasons. Other idle acreages are on the verge of abandonment for crop use.

Although the acreage in idle status is in general agreement with the acreage diverted from production under Federal farm programs in 1969 (58 million acres), the two are only roughly identical in composition. In addition to differences suggested above, part of the diverted acreage is in the cultivated summer fallow component.

Much of the 88 million acres of cropland used only for pasture is routinely rotated between crop and pasture use, although the rotation period varies. However, a substantial amount has essentially the same characteristics as permanent grassland pasture in farms and may remain in pasture indefinitely.

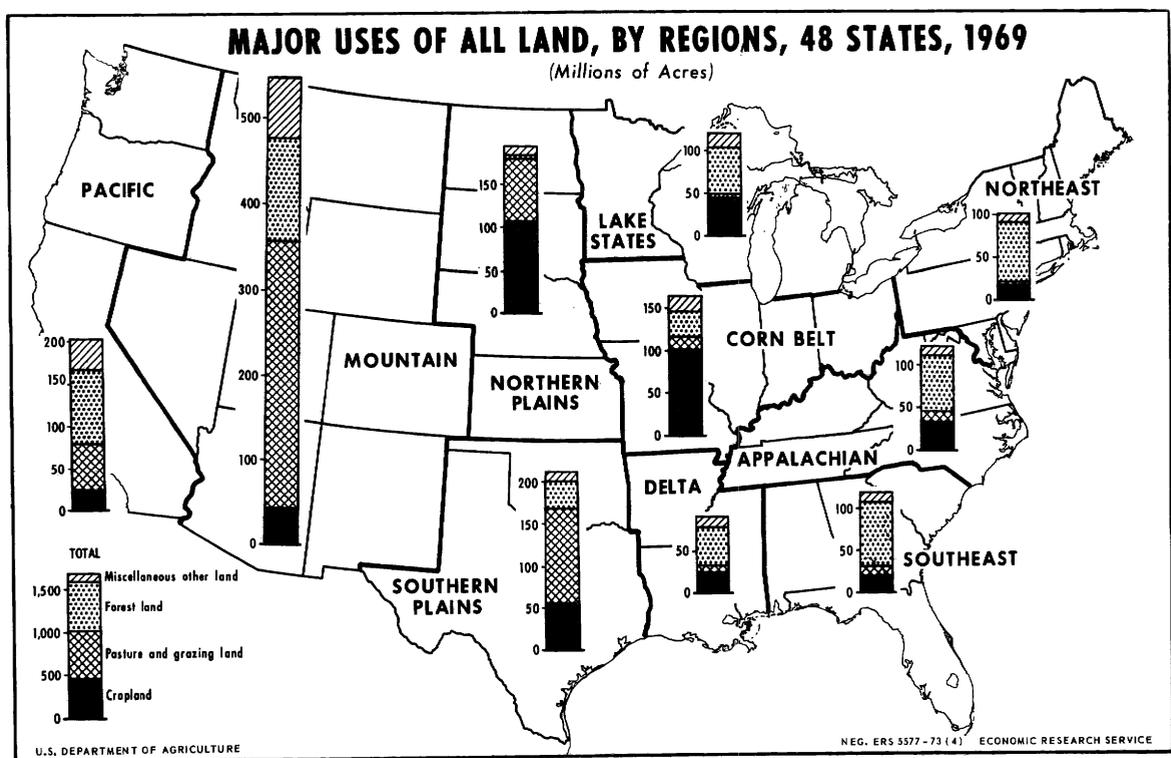


Figure 3

Table 5—Major uses of land, by regions, United States, 1969

Region <sup>1</sup>	Cropland <sup>2</sup>		Pasture and range <sup>3</sup>		Forest land <sup>4</sup>		Other land		Approximate land area	
	Mil. acres	Percent	Mil. acres	Percent	Mil. acres	Percent	Mil. acres	Percent	Mil. acres	Percent
Northeast	17.9	16	3.2	3	71.2	63	19.8	18	112.1	100
Lake States	44.3	36	6.2	5	52.5	43	19.0	16	122.0	100
Corn Belt	102.0	62	14.0	8	31.1	19	17.9	11	165.0	100
Northern Plains	107.2	55	72.9	38	4.5	2	9.6	5	194.2	100
Appalachian	31.6	25	8.4	7	73.1	59	10.8	9	123.9	100
Southeast	20.4	17	10.5	8	77.1	62	15.6	13	123.6	100
Delta States	24.6	27	8.4	9	50.5	55	8.8	9	92.3	100
Southern Plains	56.0	26	111.3	53	33.0	16	11.5	5	211.8	100
Mountain	43.4	8	313.5	57	119.9	22	71.1	13	547.9	100
Pacific	24.3	12	52.6	26	89.9	44	37.4	18	204.2	100
48 States	471.7	25	601.0	32	602.8	32	221.5	12	1,897.0	100
Alaska	*	*	1.6	*	118.3	33	242.6	67	362.5	100
Hawaii	.4	9	1.0	24	1.6	42	1.1	25	4.1	100
U.S. total	472.1	21	603.6	27	722.7	32	465.2	20	2,263.6	100

<sup>1</sup>States comprising the respective regions are shown in appendix table 1.

<sup>2</sup>All land in the crop rotation.

<sup>3</sup>Includes open permanent pasture both in farms and not in farms.

<sup>4</sup>Total forest land area as reported by the U.S. Forest Service (9), excluding reserved woodland and forest areas in national and State parks and other special use areas. It was not feasible to eliminate all duplication existing because of multiple use.

\*Less than 0.1 million acres or 0.5 percent.

## Cropland Uses, by Regions

In 1969, seven-tenths of the nation's 472-million-acre cropland base was used for crops, two-tenths was used for pasture, and about a tenth was idle (table 6). In absolute terms, acreages of cropland used for crops are particularly large in the Corn Belt and Northern Plains and are relatively large in the Lake States, Southern Plains, and Mountain Regions. As a proportion of total cropland, cropland used for crops is above the national average of 71 percent in the Northern Plains, Mountain, and Pacific Regions; about average in the Lake States and Corn Belt; and below the average in the Northeast and the Southern United States. The proportion of total cropland actually used for crops ranges from 47 percent in the Appalachian Region to 82 percent in the Northern Plains.

Idle cropland, including cropland in soil improvement crops, comprises about 11 percent of cropland nationally but ranges from about 5 or 6 percent in Alaska and the Pacific Region to 17 percent in the Lake States. In general, the proportion of idle cropland is higher than the national average in the eastern half of the country and lower in the western half. The largest absolute regional acreage, 14 million acres, or 28 percent of the total, is in the Corn Belt. As classified here, a high pro-

portion of the cropland in Hawaii is idle but much of the acreage is in crops for harvest in a later year.

Cropland used only for pasture accounted for 19 percent of all cropland in 1969, but was double this rate in the Appalachian Region and was relatively high throughout the Southeast, South, and Southwest, where it appears in association with substantial cropland abandonment. At the other extreme, only 10 percent of the cropland in the Northern Plains was pastured. However, cropland pasture acreages in both the Northern Plains and the Corn Belt were relatively large due to the large acreages of total cropland in these regions.

### Trends in Major Uses of Cropland

Although the total acreage classified as cropland has not changed greatly in the past two decades, important changes have occurred in individual use components (table 7 and fig. 4). Of particular interest, cropland used for crops decreased from 387 million acres, the record high, in 1949 to 333 million in 1969. Much of the decrease in acreage used for crops occurred in three brief periods, 1950, 1956-57, and 1961-62, as a result of major Federal programs designed to shift cropland from production to soil conserving uses. Since 1962 the acreage used for crops has fluctuated by several

Table 6—Cropland uses, by region, United States, 1969

Region <sup>1</sup>	Cropland			
	Used for crops <sup>2</sup>	In soil improvement crops or idle	Used for pasture	Total
	<u>1,000 acres</u>			
Northeast	12,204	1,980	3,669	17,853
Lake States	31,507	7,532	5,293	44,332
Corn Belt	70,718	14,365	16,886	101,969
Northern Plains	88,313	7,651	11,273	107,237
Appalachian	14,758	4,444	12,428	31,630
Southeast	11,539	3,251	5,634	20,424
Delta States	15,933	1,941	6,684	24,558
Southern Plains	33,907	5,303	16,833	56,043
Mountain	34,850	2,783	5,726	43,359
Pacific	19,049	1,498	3,755	24,302
48 States	332,778	50,748	88,181	471,707
Alaska	14	1	3	18
Hawaii	176	160	36	372
U. S. total	332,968	50,909	88,220	472,097

<sup>1</sup>See appendix table 4 for data by States.

<sup>2</sup>Includes cultivated summer fallow.

Table 7—Major uses of cropland, United States, census years, 1949-69

Use of cropland	1949	1954	1959	1964	1969
	<i>Million Acres</i>				
Cropland harvested	352	339	318	292	286
Crop failure	9	13	10	6	6
Cultivated summer fallow	26	28	31	37	41
Total used for crops	387	380	359	335	333
Soil improvement and idle	22	19	33	52	51
Cropland used for pasture	69	66	66	57	88
Total cropland	478	465	458	444	472

million acres, more or less in balance with demand for crop production.

Cropland harvested, the basic component of the acreage used for crops, decreased from 352 to 286 million acres from 1949 to 1969, or more sharply than the total acreage used for crops. The effect of this decrease was partly offset by a general upward trend in cultivated summer fallow. Acreages of crop failure, the smallest and least controllable component, ranged between 2 and 4 percent of the harvested acreage during the comparison period.

Cropland in soil improvement crops and other idle cropland trended upward as the acreage used for crops decreased. The overall or net increase in idle land from 1949 to 1969 was 29 million acres, or from 22 to 51 million acres. This increase was closely associated with land diverted from crop production under Federal programs, although additional cropland was diverted to cultivated summer fallow and to various noncropland uses. Idle cropland, particularly that diverted from production to soil-conserving crops, represents a source of cropland as needed. Hence, the acreage tends to vary inversely

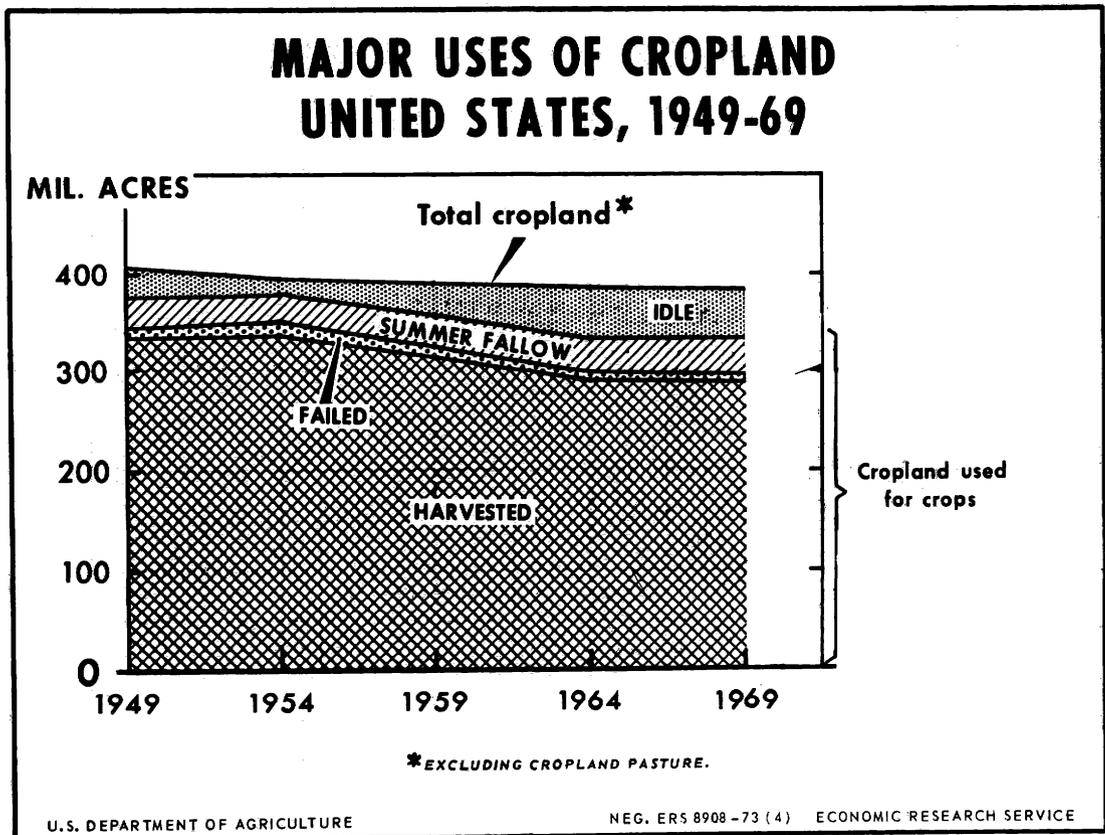


Figure 4

with annual changes in the acreage of cropland used for crops.

Cropland used only for pasture has not been enumerated consistently in the Censuses of Agriculture because responding farm operators did not interpret the definition of this category uniformly from area to area and from year to year. For example, cropland used only for pasture, as enumerated in the 1964 and 1969 Censuses, increased from 57 to 88 million acres. The sharp increase in 1969 probably is attributable to inadvertent enumeration of permanent grassland pasture in farms, which decreased correspondingly. Thus, although available statistics indicate a stable trend followed by a recent increase, it is more likely that cropland pasture acreages were fairly stable throughout the comparison period. However, some cropland established to conserving uses suitable for pasture under the soil bank program has now returned to cropland pasture use.

Because of inconsistencies in cropland pasture acreages, trends in total cropland are more apparent when cropland pasture is excluded from comparison totals. By this measure, cropland (the combined acreages of cropland used for crops and idle cropland) totaled 409 million acres in 1949; 399 million in 1954; 392 million in 1959; 387 million in 1964; and 384 million in 1969. Overall cropland exclusive of cropland pasture trended downward by 25 million acres, with most of the net change (17 million) occurring in the 1950's. In contrast, when inconsistent estimates of cropland pasture are included, total cropland trended downward by 34 million acres between 1949 and 1964 and then virtually regained these losses by 1969.

### **Trends in Cropland Used for Crops, by Regions**

Regional acreages of cropland used for crops followed the national trend (48 States) during 1949-62, and tended to diverge during 1962-69 (table 8 and fig. 5). During the former period, all regions experienced some decrease in cropland used for crops, ranging from 1 million acres in the Mountain Region to 10 million acres in the Southern Plains.

Compared with the national decline of 15 percent during 1949-62, the acreage used for crops decreased 13 percent in the Lake States; about 10 percent in the Corn Belt, Northern Plains, and Pacific Regions; and less than 5 percent in the Mountain Region. In all other farm production regions, decreases in cropland used for crops were greater than the national rate. Regional decreases in the South and Southwest ranged from 24 percent in the Delta States and Southern Plains to 30 percent in the Appalachian Region and 40 percent in the Southeast Region. Although the decline in the

Northeast was relatively moderate, it represented 18 percent of the regional acreage used for crops in 1949. The general decline in acreage used for crops was mainly attributable to Federal acreage diversion programs.

Comparison of regional acreages of cropland used for crops in 1962 and 1969 reveals little change in six farm production regions and a divergent pattern in others. Decreases of about 2 million acres each in the Northeast and Lake States continued the historical downward trends in those regions. Acreages changed little in such diverse regions as the Corn Belt, Appalachian, Southeast, Southern Plains, and Pacific Regions, but increased 1 to 3 million in the Northern Plains, Delta States, and Mountain Regions. The increase in the Northern Plains generally represents normal annual variations in the acreage used for crops. However, the increase in Delta States represents a definite upward trend. In recent years, substantial acreages of alluvial soils in the lower Mississippi Valley have been cleared and drained for crops, more than offsetting cropland abandonment elsewhere in the region. Similarly, the gradual expansion of irrigation (app. table 13) has helped to maintain or increase cropland acreage in the Mountain Region.

The general but unequal declines in regional acreage since World War II have increasingly concentrated the cropland used for crops in relatively favored regions. From 1949 to 1962, the Lake States, Corn Belt, Northern Plains, Mountain, and Pacific Regions collectively increased their proportional share of the national acreage from 69 to 73 percent. In these five regions, cropland used for crops decreased at less than the national rate. After 1962, this trend was modified somewhat, as perceptible proportional increases in cropland used for crops were limited to the Northern Plains, Mountain Region, and Delta States.

Although obscured by net regional decreases since 1949, the acreage used for crops has increased in numerous areas and localities. A recent study of the 1944-64 period found that acreages used for crops plus idle cropland increased in 868 counties (28 percent) and decreased in the remaining counties. The total increase in increasing counties was 26.7 million acres or 1.3 million per year, as opposed to the total decrease in decreasing counties of 53.5 million acres or 2.6 million per year (4). Acreages of new cropland were concentrated heavily in the lower Mississippi Valley, Central and Southern High Plains, Central California, and Northern Montana. New cropland acreages were less concentrated but still large in the Corn Belt, the Dakotas, Florida, and several areas of the West. In general, cropland development in the East is associated with wetland drainage and in the West with the ex-

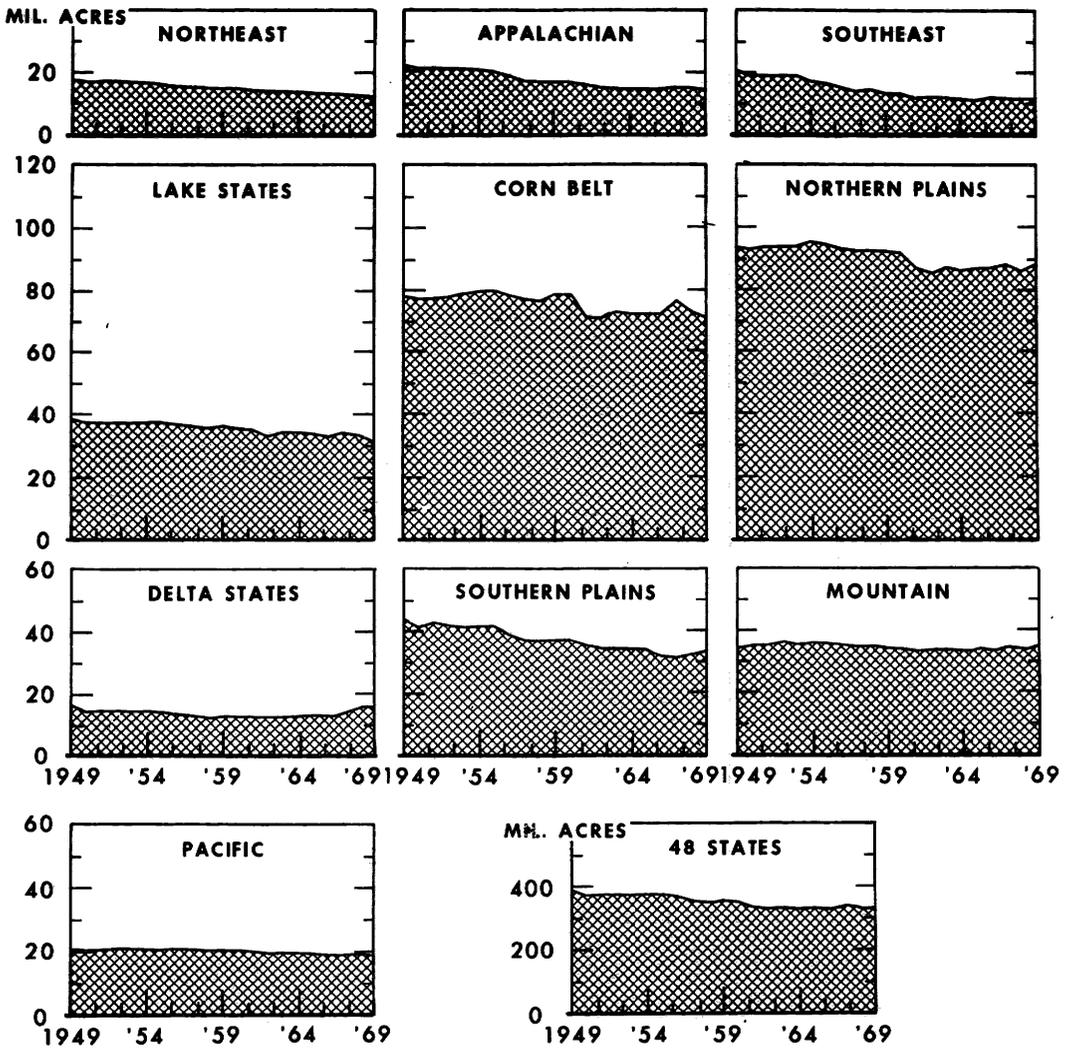
Table 8—Cropland used for crops, by region, 48 States, 1949-69 <sup>1/</sup>

Year	North- east	Lake States	Corn Belt	Northern Plains	Appa- lachian	South- east	Delta States	Southern Plains	Mountain	Pacific	48 States
	<u>Million acres</u>										
1949	17.2	38.2	78.0	93.9	22.3	20.2	16.6	44.7	34.7	20.8	386.6
1950	17.1	37.5	77.2	93.3	21.1	18.7	15.3	41.7	35.2	20.2	377.3
1951	17.0	37.7	77.4	93.8	21.2	18.7	15.4	43.4	35.9	20.6	381.1
1952	16.9	37.4	77.8	93.8	20.8	19.0	15.1	41.8	36.6	20.8	380.0
1953	16.8	37.6	78.8	94.0	20.6	18.9	14.9	41.3	35.8	20.8	379.5
1954	16.6	37.6	79.4	95.5	20.0	17.6	14.8	41.5	36.2	20.7	379.9
1955	16.4	37.6	79.5	94.6	19.9	17.3	14.3	41.4	36.2	20.5	377.7
1956	15.9	37.4	78.5	92.8	18.9	16.1	13.7	38.9	35.7	20.8	368.7
1957	15.7	36.4	77.2	90.1	17.5	15.1	13.2	37.3	35.2	20.5	358.2
1958	15.5	36.0	76.9	90.4	17.2	13.7	12.5	36.8	35.3	20.5	354.8
1959	15.2	36.7	78.8	90.2	17.4	14.6	13.1	37.6	34.4	20.5	358.5
1960	14.9	35.8	78.4	91.5	17.1	13.3	12.8	37.2	34.1	20.2	355.3
1961	14.5	35.3	71.6	86.9	16.1	12.7	12.8	35.8	33.8	20.1	339.6
1962	14.2	33.3	70.7	85.3	15.4	11.9	12.7	34.4	33.9	19.4	331.2
1963	14.2	34.5	72.5	87.1	15.2	12.1	13.1	34.8	34.0	19.8	337.3
1964	14.0	34.3	72.0	86.2	15.0	11.9	13.5	34.1	33.9	19.9	334.8
1965	13.7	34.1	72.4	87.2	15.1	11.5	13.7	34.0	34.5	19.7	335.9
1966	13.7	33.3	72.7	87.5	15.0	11.0	13.6	32.0	33.8	19.4	332.0
1967	13.4	34.4	76.2	88.2	15.7	12.1	14.9	31.6	34.1	19.7	340.3
1968	12.7	33.7	72.6	86.2	15.5	11.8	16.1	32.5	34.1	19.7	334.9
1969	12.2	31.5	70.7	88.3	14.8	11.5	15.9	33.9	34.9	19.1	332.8
1970	12.6	32.0	71.6	87.1	15.0	11.8	16.3	30.9	34.9	19.4	331.6
1971	12.7	34.4	75.3	88.5	16.4	12.8	16.3	30.4	34.3	19.4	340.5
1972 <sup>2/</sup>	12.5	34.1	71.3	87.4	16.0	12.4	16.3	29.7	34.9	19.6	334.2

<sup>1/</sup> Cropland used for crops is the sum of the acreage from which one or more crops were harvested plus acreages of crop failure and cultivated summer fallow.

<sup>2/</sup> Preliminary

# CROPLAND USED FOR CROPS, 48 STATES AND REGIONS, 1949-69\*



\* INCLUDES THE ACREAGE OF LAND FROM WHICH ONE OR MORE CROPS WERE HARVESTED PLUS ACREAGES OF CROP FAILURE AND SUMMER FALLOW.

U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 1815-73 (4) ECONOMIC RESEARCH SERVICE

Figure 5

pansion of irrigation. Improved dryland farming techniques also have contributed to cropland increases, especially in Montana.

The outstanding recent instance of cropland development is the alluvial plain of the Mississippi River, particularly that portion in Arkansas, Louisiana, and Mississippi. From 1950 to 1969, cropland in the alluvial areas of these States increased 3.3 million acres, or 40 percent, as the result of intensive clearing and drainage of forested wetlands (2). The effects of reclamation became especially evident after 1962, when new cropland development in the alluvial plain accelerated and acreages used for crops elsewhere in the Delta Region tended to stabilize. The overall acreage used for crops in the Delta Region has trended steadily upward since 1962.

Several factors have combined to greatly increase productivity per acre of cropland used for crops since 1949. In general, adjustments in the acreage used for crops have resulted in increasingly concentrated cropping of the most productive land, both on individual farms and by areas and regions. The substitution of new cropland and improvement of existing cropland by such means as land forming, drainage, and irrigation have also upgraded the acreage used for crops. To these improvements in basic land capability have been added larger inputs of fertilizer, pesticides, and herbicides; use of improved plant varieties, machinery, and equipment; and more efficient farm organization. Further increases in productivity are attributable to changes in the proportions of intensive and extensive crops produced.

From 1949 to 1969, output per crop acre increased more than 50 percent and total crop production increased more than 40 percent (8). In comparison, the nation's population increased 34 percent from 1950 to 1970 (6).

### Changes in Composition of Crops Harvested

Crops harvested, including several million acres harvested in succession from the same land, totaled 291 million acres in 1969 or 56 million less than in 1954. This substantial reduction in acreage of crops harvested was accompanied by significant changes in the acreage of several crops and crop types (table 9 and app. table 12). Broadly grouped, feed crops decreased from 224 to 168 million acres because of major reductions in the acreage of corn and oats and substantial reductions in barley and hay acreage. In contrast, food crops gained 15 million acres or 16 percent during this period (1954-69). The increase in food crops was attributable to soybean acreage, which more than doubled—from 17 to 41 million acres. Wheat, the dominant food crop in terms of acreage, decreased 7 million acres or 13 percent. Other food crops showed only small, offsetting changes. Crops other than feed and food crops decreased 13 million acres, mainly reflecting large reductions in cotton and flaxseed acreages. As a result of these shifts, feed crops now account for only 58 percent of the acreage of crops harvested, as opposed to 65 percent in 1954; food crops gained proportionally—from 26 to 36 percent; and other crops lost proportionally—from 9 to 6 percent.

Table 9—Crops harvested, by type, 48 States, census years, 1954-69<sup>1</sup>

Crop	1954	1959	1964	1969
	<u>Million acres</u>			
Food grains	59	55	53	51
Other food crops	32	37	46	55
Total food crops	91	92	99	106
Feed grains	152	143	111	108
Hay	72	66	67	60
Total feed crops	224	209	178	168
Other crops	32	23	21	17
Total crops harvested	347	324	298	291

<sup>1</sup>See appendix table 12 for individual crop acreages and sources of data.

### Pasture and Range Resources

Livestock grazing occurs on about 890 million acres or 39 percent of the land area (table 10). The total includes acreages in three major types—cropland used alternately for pasture (88 million), grassland and other

nonforested land used more or less exclusively for grazing (604 million), and forest land on which grazing occurs as a secondary or additional use (198 million). This distribution is approximate, as interfaces between major

types of pasture and range are not always precise either in nature or in available statistics. Cropland pasture and permanent grassland pasture are difficult to differentiate in some cases. Similarly, grassland pasture and range includes some brushland or wooded areas, and forested grazing land includes many areas of open forage.

Of the total pasture and range, 602 million acres were enumerated as land in farms. Pasture and range in farms includes all of the cropland pasture (88 million acres), 75 percent of the permanent grassland pasture, (452 million acres), and 31 percent of the forest land grazed (62 million acres). Most grazing land in farms is in private, State, and Indian ownership. Less than 10 percent of the Federal range, consisting mainly of scattered areas grazed under lease, is enumerated as land in farms.

The 288 million acres of grazing land not in farms consists of 152 million acres of grassland and other non-forested areas, and 136 million acres of forest land. More than 200 million acres of the grazing land not in farms is federally owned, mainly in Federal grazing districts and national forest system range allotments. These areas are grazed under a permit rather than lease arrangement

and, as such, are not enumerated as land in farms. Much of the non-Federal grazing land not in farms consists of large forest tracts in the South.

In relative terms, forage yields are high on cropland pasture, moderate on grassland pasture in farms, and low on both open and forested grazing land not in farms. However, all pasture and range types generally represent extensive uses of land. Thus although grazing occurred on triple the acreage of harvested cropland, only about one-third of all livestock feed was obtained from this source (1).

Livestock grazing is much more important in the agricultural economies of sparsely populated areas of the West than nationally. The Mountain Region alone has 398 million acres of pasture and range (table 10). This total represents 45 percent of the Nation's pasture and range, 73 percent of the region's land area, and nearly 10 times the region's cropland (exclusive of cropland pasture). As a proportion of land areas, total pasture and range acreages are equally high in the Southern Plains and are above the national average in the Northern Plains, Delta States, and Pacific Regions.

Grazing is relatively unimportant in some regional

Table 10—Pasture and range, by type and region, United States, 1969

Region	Cropland pasture <sup>1</sup>	Grassland pasture and range <sup>2</sup>	Forest land pasture and range <sup>3</sup>	Total pasture and range <sup>4</sup>	
				Acreage	Percentage of land area
	----- 1,000 acres -----			Percent	
Northeast	3,669	3,162	2,238	9,069	8
Lake States	5,293	6,175	4,735	16,203	13
Corn Belt	16,886	13,948	11,975	42,809	26
Northern Plains	11,273	72,940	2,358	86,571	46
Appalachian	12,428	8,427	6,669	27,524	22
Southeast	5,634	10,498	13,619	29,751	24
Delta States	6,684	8,433	21,391	36,508	40
Southern Plains	16,833	111,349	26,341	154,523	73
Mountain	5,726	313,478	79,071	398,275	73
Pacific	3,755	52,594	29,084	85,433	42
48 States	88,181	601,004	197,481	886,666	47
Alaska	3	1,624	111	1,738	*
Hawaii	36	987	451	1,474	36
U. S. total	88,220	603,615	198,043	889,878	39

<sup>1</sup>Mainly cropland in rotation, used some years for cultivated crops and other years for pasture.

<sup>2</sup>Excludes cropland used for pasture.

<sup>3</sup>An approximation of the acreage grazed to some extent during the year.

<sup>4</sup>Excludes 57 million acres in Federal grazing districts and national forest system range allotments, characterized by little value for grazing.

\*Less than 0.5 percent.

agricultural economies but is important in absolute terms. An example is the Corn Belt, where 17 million acres of cropland pasture are distributed in proportion to a much larger total cropland acreage. Forage from this acreage, plus smaller acreages of permanent grassland and woodland pasture, is equivalent to several times this acreage of semiarid Western range. Yet its value is overshadowed by much larger returns from cultivated cropland in the region.

#### Regional Distribution, by Major Pasture Type

The proportion of total pasture and range in individual pasture types differs significantly among the farm productions regions (table 10). Grassland pasture accounts for 60-85 percent of total pasture and range acreage in regions comprising the 17 Western States; exceeds other types in the Lake States, Alaska, and Hawaii; and is important in all regions. The total acreage in the 17 Western States is 550 million acres, or 90 percent of all permanent grassland. The concentration of permanent nonforested grazing land in the Western United States is attributable to natural conditions that limit alternative land uses.

Cropland pasture acreages are distributed roughly in proportion to total cropland but comprise a higher proportion of cropland in regions undergoing significant cropland abandonment. Hence, acreages are relatively large in the Corn Belt, Northern Plains, Southern Plains, and Appalachian Regions. Among these regions, however, cropland pasture is the dominant type in only the Corn Belt and the Appalachian Region. Among other regions, it is the dominant type only in the Northeast, a region where the total pasture and range acreage is relatively small.

Acreages of woodland grazing land range from about 2 million acres in the Northeast and Northern Plains to 79 million acres in the Mountain Region. Aggregate acreages are relatively large throughout the West, Southwest, and South but represent the dominant pasture type in only two regions—the Southeast and Delta States. In other regions, acreages of forest land grazed are smaller than grassland pasture acreages and are

often smaller than cropland pasture acreages.

The regional variation in forest land grazed reflects both the amount of forest land and such factors as forest species composition and stand density.

#### Changes in Pasture and Range Acreages

Changes in cropland pasture and grassland pasture are difficult to measure, as they have been inconsistently interchanged in agricultural surveys. When both types are combined, however, total grassland pasture has been almost stable since 1950, decreasing only slightly—from 701 to 692 million acres in 1969 (table 11). In comparison, the forested component of the grazing acreage decreased from 319 to 198 million acres. The major decrease in woodland grazed, plus the small decrease in grassland pasture, reduced the total acreage grazed by 130 million acres, or 13 percent, from 1950 to 1969.

Most of the small net decrease in the combined acreage of temporary and permanent grassland pasture occurred after 1959, when losses slightly exceeded gains in a majority of regions. This trend is associated with a decelerated rate of cropland abandonment, the tendency of open land to reforest, and the expansion of urban and other special uses of land. Prior to 1959, the combined grassland pasture acreage decreased substantially in the Mountain and Pacific Regions, primarily because of a reduction of acreage classified as suitable for grazing. These losses were essentially offset by a relatively large increase in grassland pasture in the Southern Plains, and small regional increases elsewhere that occurred in association with the general decline in acreage used for crops.

Forest land grazed has declined in all regions since 1950. Rough approximations of the acreage in this type indicate a national decline of about 40 percent and regional declines equaling or exceeding the national rate except in the Mountain Region and, possibly, the Corn Belt and Northern Plains. Among the factors associated with the major downtrend in forested grazing land are (1) improved livestock feeding and forest management practices, (2) changes in forest species and stand den-

Table 11—Total pasture and range, by type, United States, census years, 1950-69

Type	1950	1954	1959	1964	1969
	<u>Million acres</u>				
Grassland pasture and range	701	700	699	697	692
Cropland pasture	(69)	(66)	(66)	(57)	(88)
Open permanent pasture	(632)	(634)	(633)	(640)	(604)
Woodland grazed	319	301	245	225	198
Total pasture and range	1,020	1,001	944	922	890

sity, (3) clearing and reclassification of woody vegetation to grassland, (4) closing of low-capacity and other areas to grazing, and (5) the general decline in the acreage of land in farms.

The net decreases in both grassland and forest land grazed generally represent the removal of areas of low productivity from the grazing acreage. At the same time, grassland pasture has been gradually improved by brush clearing, reseeding, fertilization, and shifts of cropland to pasture. Thus, although the total acreage grazed has declined since 1950, the average quality of the remaining pasture and range acreage has been significantly upgraded. Available data indicate that total pasture production has increased about 10 percent since 1960 (1).

## Forest Land

The total area in the United States classified as forest land is 754 million acres. Of this total, 500 million acres, or two-thirds, is commercial forest, i.e., suitable and available for growing continual crops of industrial timber products. The remaining third is classified as noncommercial because of inherent low timber-producing capacity or, in the case of some public lands, legal reservation for recreation and other nontimber uses. The noncommercial acreage includes some areas in the Alaskan interior that will probably be classified commercial when a detailed survey is completed (9).

The total forest land acreage is about equally divided between the 31 Eastern States and the 17 Western States plus Alaska and Hawaii. In contrast, the proportions classified as commercial and noncommercial in the two regional groupings are strikingly dissimilar. In the 31 Eastern States, 94 percent of the forest land is classified as commercial; in the remaining 19 States, only 36 percent is of commercial quality. Exclusive of Alaska, however, the average for the Western States is 51 percent. Individual Eastern regions not only have disproportionately large shares of the commercial forest land, but also have the highest proportions of their total land area classed as forest (table 5).

Although substantial acreages of open land have reverted to forest since 1950, these gains have been largely offset by new land clearing for crops, pasture, urban, and other uses. During the 1950's, forest land expanded measurably in a broad region extending from the Northeast to the Delta States but these increases were partly offset by decreases in other regions, particularly the Southern Plains. Since 1960, forest land has increased, at least slowly, in a majority of the States east and south of the Corn Belt; these gains were more than offset by sharp decreases in a few States, most notably those comprising the Delta Region. As a result of these

opposing changes, total forest land is now less than 1 percent above the 1950 acreage (table 4).

Most of the forest area is considered to be primarily used for forestry but it typically serves multiple purposes. For example, about one-fourth of the acreage is grazed by livestock and large acreages are available for some degree of recreational use. In addition, forest land universally provides watershed protection and wildlife habitat. Forest land exclusive of the area grazed and the areas used primarily for other purposes totals approximately 525 million acres.

## Special and Miscellaneous Uses

### Special Use Areas

Special uses of land, including urban and transportation areas, recreational and wildlife areas, and other uses occupied 178 million acres in 1969, or 8 percent of the land area of the country (table 12). Urban and transportation areas accounted for 61 million acres or one-third of the total. National and State parks and related recreational areas occupy 49 million acres. An additional 32 million acres are reserved for wildlife protection and propagation. About 28 million acres have been set aside for defense and atomic energy purposes, and 8 million acres are occupied by farmsteads, farm roads, and farm lanes. This grouping of special-purpose uses includes the most, and some of the least, intensively used land in the country. Except for land used for farmsteads, farm roads, and farm lanes, these uses are nonagricultural.

Special uses of land traditionally have been assessed in terms of their effect on agricultural land supplies. From this standpoint, urban areas and, to a lesser extent, transportation uses are of particular interest. As urban and transportation areas expand in rural areas, they may progressively occupy or isolate land in other uses in existing proportions: but when a choice is possible, a disproportionate share of level, well-drained land is normally taken.

At the other extreme, parks, wildlife areas, wilderness and primitive areas, monuments, memorials, and related uses usually conflict only slightly with agricultural use of land. Although relatively large acreages are involved, a high proportion of the extensive special use acreage is located in portions of the 11 Western States and Alaska, where physical conditions limit or preclude agricultural activities. Even in the better agricultural regions of the East, much of the recreational and wildlife acreage is unsuitable for agricultural purposes.

In times of expansion, national defense areas and other public installations and facilities represent the

Table 12—Special use areas, United States, estimates for 1969

Special use area <sup>1</sup>	Area	Share of total
	<u>1,000 acres</u>	<u>Percent</u>
<b>Nonagricultural:</b>		
<b>Intensive uses:</b>		
Urban areas	34,590	19.5
Highways and roads	20,977	11.8
Railroads	3,221	1.8
Airports	1,755	1.0
<b>Total</b>	<b>60,543</b>	<b>34.1</b>
<b>Extensive uses:</b>		
National Parks	28,281	15.9
State parks	6,710	3.8
Wilderness and primitive areas	14,290	8.0
Federal wildlife refuges	25,422	14.3
State wildlife refuges	6,634	3.7
National defense areas	23,441	13.2
Federal industrial lands	2,146	1.2
State institutional and other uses	1,918	1.1
<b>Total</b>	<b>108,842</b>	<b>61.2</b>
<b>Total nonagricultural lands</b>	<b>169,385</b>	<b>95.3</b>
<b>Agricultural:</b>		
Farmsteads	6,564	3.7
Farm roads and lanes	1,856	1.0
<b>Total agricultural special use lands</b>	<b>8,420</b>	<b>4.7</b>
<b>Total special use areas</b>	<b>177,805</b>	<b>100.0</b>

<sup>1</sup>Definitions and procedures are given in footnotes to table 10, showing special use areas by States.

middle ground between urban-transportation and recreation-wildlife uses as competitors with agriculture for space. The present distribution pattern indicates that not more than one-fourth of the acreage for these facilities (7 million acres) is located in viable agricultural areas. The acreage of former cropland used intensively for these purposes or irreversibly lost to agriculture is considerably smaller.

Although farmsteads, farm roads, and farm lanes generally complement rather than compete with agricultural uses, they occupy a substantial area of land. The acreage in individual farms devoted to these uses varies by size of farm, type of farming activity, and other factors. Much of the acreage involves land originally suitable for crops and pasture.

#### Rate of Growth of Special Use Areas

Available estimates, although not precise or completely consistent over time, indicate that the special use

areas grouped in table 13 increased 27 million acres, or an average of 2.7 million acres annually, during 1959-69 (table 13). Most of the individual uses specified also increased. Among intensive uses, the area in urban places increased from 27.2 to 34.6 million acres, an average of three-fourth million acres annually. Comparison of population and area data for 1960 and 1970 indicates that urban areal growth exceeded urban population growth in recent years. When aggregated by components, average densities decreased in the central cities of urbanized areas and in smaller places outside the urbanized areas. In contrast, density in the suburban fringe, where 69 percent of urban population increase occurred, was virtually unchanged. The emerging pattern suggests some abandonment of older areas for improved living space elsewhere, rather than an effective gain in per capita living space.

Rural transportation areas increased from 24.7 to 26.0 million acres, or 130,000 acres annually during the 1960's. Construction of new highways, particularly the

Table 13—Special use areas, United States, 1959 and 1969

Special use area <sup>1</sup>	1959 <sup>2</sup>	1969	Change
	<u>Million acres</u>		
Urban areas	27.2	34.6	+7.4
Transportation areas	24.7	26.0	+1.3
Recreation and wildlife areas	61.5	81.4	+19.9
Public installations and facilities	27.5	27.4	-.1
Farmsteads and farm roads	10.1	8.4	-1.7
<b>Total</b>	<b>151.0</b>	<b>177.8</b>	<b>+26.8</b>

<sup>1</sup>Individual uses are specified in table 12.

<sup>2</sup>From Wooten, et al. (14).

Interstate system, averaged about 100,000 acres and new airports averaged 37,000 acres yearly. These gains were slightly offset by a small decrease in the acreage of railroad rights-of-way. The overall increase in rural transportation areas was also minimized by incremental reclassification of both highway and airport areas to urban areas, which continually expand into rural areas.

Areas of artificial reservoirs have been deducted from total land areas used herein. However, substantial acreages of land are converted to reservoirs each year. The total fluctuates, but land taken by reservoirs of 5,000 acre-feet or more has averaged approximately 300,000 acres in recent years. By combining this total with some 870,000 acres taken by urban and transportation uses, it is estimated that about 1.2 million acres of all types of land shift to the specified intensive special uses each year. This rate is above the rate of 1.0 million estimated for the 1950-60 decade (3, 13, and 14), mainly because of accelerated urban growth.

Extensive-type nonagricultural uses of land increased 20 million acres from 1959 to 1969. Virtually all of the increase is attributable to recreational and wildlife uses, which expanded by 5 and 15 million acres respectively. Much of the added wildlife acreage comprised public domain wildlands in Alaska that were reserved in extraordinarily large blocks. Apart from such unusual increases, recreation and wildlife areas increased by roughly 1 million acres annually.

Public installations and facilities changed little in the last decade, as small increases in the acreage of State-administered institutional areas were offset by attrition in national defense lands. Much of the acreage held for defense purposes was assembled during the World War II period, and currently may not be fully utilized.

The estimated acreage in farmsteads, farm roads, and farm lanes—relatively intensive uses and the only special uses classified as agricultural—decreased correspondingly with decreases in the number of farms and land in farms.

### Miscellaneous Other Land

Except for minor acreages in special uses that were not inventoried, the remaining 287 million acres of the Nation's land resources consist largely of swamps, marshes, bare rock areas, desert, tundra, and similar areas. Acreages of miscellaneous land are relatively large in arid portions of the West and several Atlantic and Gulf Coastal areas but particularly large in Alaska, which has 212 million acres or nearly three-fourths of the total. Although characterized by little or no economic surface use, these areas generally have utility for wildlife purposes and some have value for minerals. From the standpoint of potential use, inroads will continue to be made for special purposes, while limited areas will be irrigated or otherwise reclaimed for agriculture.

### Major Uses of Land, by Class of Ownership

The land resources of the United States are classified by major ownership and use classes in table 14. About three-fifths of the land area is privately owned and two-fifths is publicly owned.

Federal land, totaling 763 million acres, mainly comprises the residual of the original public domain but also includes 55 million acres acquired by purchase and other means. Almost half (47 percent) of the Federal land is distributed in the 11 Western States and an equal amount is located in Alaska (7). Grazing is the primary use of 165 million acres of grassland and is a secondary use on 60 million acres of forest land. Livestock have access to an additional 57 million acres, mainly forest types, that have low productivity and grazing utility but are intermingled and managed with better quality Federal rangeland. Other major uses of Federal land are forest land (including forest land grazed), 37 percent; special uses, 12 percent; and miscellaneous land including desert, tundra, etc., 30 percent. Most of the area in extensive special uses also is federally owned.

Table 14—Major classes of land, by use and ownership, United States, 1969

Ownership <sup>1</sup>	Cropland	Grassland pasture and range	Forest land <sup>2</sup>	Special use and other land	Total land area
	<u>Million acres</u>				
Federal	1	165	278	319	763
State and other public <sup>3</sup>	2	41	38	53	134
Indian <sup>4</sup>	2	32	13	3	50
Private	467	366	425	59	1,317
<b>Total</b>	<b>472</b>	<b>604</b>	<b>754</b>	<b>434</b>	<b>2,264</b>

<sup>1</sup>Federal, State, local government, and Indian land acreages are approximations based on public records and reports. Private land is the rest of the land area in each major use.

<sup>2</sup>Includes reserved forest land in parks and other special uses.

<sup>3</sup>Does not fully reflect recent land grants from the public domain to the State of Alaska.

<sup>4</sup>Trust land held by tribes and individual Indians. About 4.9 million acres of federally owned land, located mainly in Alaska, are also used by Indians.

State and local governments have accumulated landholdings of varying size through such means as grants of land from the Federal Government, tax reversion, purchase, gift, and escheat. These publicly administered areas are distributed somewhat more evenly than Federal land, but are still characterized by a high degree of concentration. The larger acreages are located mainly, but not exclusively, in the Western States. State and local governments hold land for forests, parks, wildlife areas, watershed protection, highway and road rights-of-way, institutional uses, and other specific purposes. Most Western States also own relatively large acreages without specific use designations. About 43 million acres in the category, including 41 million acres of grassland, are used for grazing.

Nearly 35 million acres of Indian land (68 percent of this category) are used by Indian farmers and livestock operators for farming and grassland pasture and range. In addition, about 13 million acres of Indian forest land are used for grazing. Indian land, like Federal and State land, is concentrated in the Western States.

Private land, exclusive of that in Indian ownership, totals 1,317 million acres, or 58 percent of the land area of the United States. Included in the privately owned total are 99 percent of the Nation's cropland, 61 percent of the grassland pasture, 56 percent of the forest land, and 13 percent of the miscellaneous land. As these percentages indicate, a large proportion of the land with relatively favorable attributes is in private ownership.

Excluding cropland used for pasture, private and other non-Federal grassland pasture and range total about 439 million acres in the 50 States. An additional 138

million acres of private and other non-Federal woodland and forest are used for grazing. Federal range classified as usable or suitable for grazing totals 225 million acres; nearly three-fourths of this area is grassland and the rest is forest and woodland. Thus, 802 million acres, including both private and public land but excluding cropland pasture, are classed as pasture and range. Of the total acreage, 604 million acres are grassland or non-forest, and 198 million acres are woodland and forest.

### Definitions and Explanations of Land Use Classes

*Cropland*—Total cropland includes six components—cropland harvested, crop failure, cultivated summer fallow, soil-improvement crops not harvested or pastured, and cropland used only for pasture. Cropland used only for pasture may also be combined with other pasture and grazing categories if the total pasture and range acreage is desired.

The six cropland components often are grouped more broadly as (1) cropland used for crops, (2) cropland used only for pasture, and (3) idle cropland. Cropland used for crops comprises the acreages of cropland harvested, crop failure, and cultivated summer fallow. This category is intended to measure the actual land input to crop production.

Idle cropland includes the combined acreages of soil-improvement crops not harvested or pastured, and land completely idle for a variety of physical and economic reasons. Much of the land diverted from crop production by Federal farm programs is in this category.

Cropland used only for pasture represents that part of the total cropland base that is used alternately for

pasture each year. Most cropland pasture eventually rotates back to crop use and is replaced, more or less, by land rotating from other cropland components. However, part of the acreage may remain in pasture indefinitely or may shift to other uses.

*Pasture and range*—Estimates of the acreage of pasture and range include open permanent pasture in farms, cropland used only for pasture, farm woodland pastured, and grazing land not in farms. Grazing land not in farms is part grassland, part shrubs and other nonforest growth, and part forest land.

Total pasture and range (890 million acres) represents the land that contributes to livestock forage production. Thus, where available data permitted, areas characterized by little forage productivity but intermingled and managed with productive grazing land were omitted in this study. Estimates for many individual States exclude some areas grazed sporadically. Much of the omitted acreage is in the forest land component.

Total pasture and range, including areas casually affected by grazing, is indicated in a recent Forest Service report on the forest-range environment of the 48 contiguous States (10). That study reports that 835 million acres, or seven-tenths of the forest-range environment, are grazed to some extent. By combining this acreage with cropland pasture, improved grassland pasture, and small acreages of pasture and range in Alaska and Hawaii, the Nation's pasture and range resources total about 1 billion acres.

In the study reported here, pasture and range is classified in two different ways. One breakdown includes grassland pasture and grazing land, and forest pastured or grazed. The second breakdown separates pasture in farms from grazing land not in farms.

*Grassland pasture and range*—Grassland pasture and grazing land includes all land used primarily for pasture and grazing, exclusive of the forest land pastured or grazed. It includes the shrub and brushland types of pasture and grazing land such as sagebrush, scattered mesquite, and some other shrub types in the West; some scattered brushland pasture in the East; and all tame and native grasses and legumes and other forage used for pasture or grazing.

Because of differences in vegetative composition and use characteristics, grassland pasture and range is not always clearly distinguishable from other types of pasture and range. At one extreme, permanent grassland may merge with cropland pasture; at the other, grassland

often intermingles or forms transitional areas with forest grazing land.

*Forest pasture and range*—Forest pasture and range consists mainly of open forest, cutover areas, brush-grown pasture, arid woodlands, and other land within forested areas that has grass or other forage growth. The total acreage of forested grazing land includes woodland pasture in farms plus rough approximations of forested grazing land not in farms. For many States, the approximations include significant areas grazed only lightly or to scattered extent.

*Forest land*—Forest land as defined by the U. S. Forest Service includes land at least 10-percent stocked by trees of any size, or formerly having had such tree cover and not currently developed for nonforest use. The total includes chaparral areas in the West, as well as afforested areas.

Most of the forest land in the East, North, and South is classified as commercial, whereas about half of the forest land in the West and Southwest is classified as noncommercial. Noncommercial forest includes inaccessible alpine ranges, chaparral, mesquite, pinion-juniper, and semiarid shrub and brush growth.

*Special-use areas*—The special uses in this report include areas for highway, road, and railroad rights-of-way; airports; farmsteads, farm roads and lanes; urban and town areas; parks, wilderness, and primitive areas; wildlife refuges; national defense areas; and State-owned land held for institutional sites and miscellaneous other uses, such as National Guard camps and rifle ranges, fairgrounds, airports, radio stations, flood-control areas, and watershed-protection areas.

Among special uses of rural land for which estimates are not available are those for industrial and commercial sites in rural areas, powerline rights-of-way, cemeteries, golf courses, mining areas, and clay, sand, and stone quarry sites. Areas in rural villages and small towns with populations of 100 to 1,000 are not included in urban and town areas. Acreages in these villages and towns are included in other major uses of land such as forest, grazing, and other land.

Water area in large reservoirs is not included among the special uses of land; the figure for the approximate land area of the United States excludes all natural or artificial water bodies of 40 acres or more.

*Miscellaneous other areas*—Miscellaneous land includes marshes, sand dunes, bare rock areas, deserts, and tundra.

## Literature Cited

1. Allen, George C., Hodges, Earl F., and Devers, Margaret  
1972. National and State Livestock-Feed Relationships: Supplement for 1972 to U. S. Dept. Agr., Agr. Stat. Bull. 446.
2. Frey, H. Thomas, and Dill, Henry W. Jr.  
1971. Land Use Change in the Southern Mississippi Alluvial Valley, 1950-69. U. S. Dept. Agr., Agr. Econ. Rpt. 215.
3. Frey, H. Thomas, Krause, Orville E., and Dickason, Clifford  
1968. Major Uses of Land and Water in the United States. Summary for 1964. U. S. Dept. Agr., Agr. Econ. Rpt. 149.
4. Krause, Orville E.  
1970. Cropland Trends since World War II. Regional Changes in Acreage and Use. U. S. Dept. Agr., Agr. Econ. Rpt. 177.
5. U. S. Bureau of the Census  
1911-72. U. S. Census of Agriculture. 1910; 1920; 1925; 1930; 1935; 1940; 1945; 1950; 1954; 1959; 1964; 1969. Washington, D. C.
6. U. S. Bureau of the Census  
1971. U. S. Census of Population: 1970. Number of Inhabitants. Final Report PC (1)-AL United States Summary. U. S. Government Printing Office, Washington, D. C.
7. U. S. Bureau of Land Management  
1970. Public Land Statistics. Washington, D. C.
8. U. S. Department of Agriculture. Economic Research Service  
1972. Changes in Farm Production and Efficiency: A Summary Report. Stat. Bull. 233, rev., 31 pp.
9. U. S. Department of Agriculture. Forest Service  
1972. Forest Statistics for the United States, 1970.
10. U. S. Department of Agriculture. Forest Service  
1972. The Nation's Range Resources. Forest Resource Report No. 19
11. U. S. Department of Agriculture. Soil Conservation Service  
1971. Basic statistics—National Inventory of Soil and Water Conservation Needs, 1967. Stat. Bull. 461
12. U. S. Department of Agriculture. Statistical Reporting Service  
1972. Field Crops: Revised Estimates by States, 1964-69. Stat. Bull. 498. 79 pp.
13. Wooten, Hugh H., and Anderson, James R.  
1957. Major Uses of Land and Water in the United States. Summary for 1954. Agr. Inf. Bull. 168.
14. Wooten, Hugh H., Gertel, Karl, and Pendleton, William C.  
1962. Major Uses of Land and Water in the United States. Summary for 1959. Agr. Econ. Rpt. 13.

APPENDIX

Appendix table 1--Major uses of land, by State and region, United States, 1969

State and region	Cropland <u>1/</u>	Grassland pasture and range <u>2/</u>	Forest land <u>3/</u>	Special uses <u>4/</u>	Other land <u>5/</u>	Approximate land area <u>6/</u>
	1,000 acres					
Maine	735	174	17,605	807	468	19,789
New Hampshire	198	57	5,046	294	182	5,777
Vermont	867	290	4,384	250	140	5,931
Massachusetts	288	49	3,412	1,219	41	5,009
Rhode Island	32	5	429	201	4	671
Connecticut	252	54	2,119	654	33	3,112
New York	6,276	1,295	14,897	5,796	2,348	30,612
New Jersey	713	61	2,396	1,573	70	4,813
Pennsylvania	6,065	849	17,638	3,810	416	28,778
Delaware	533	34	390	183	128	1,268
Maryland	1,894	294	2,925	981	236	6,330
District of Columbia	--	--	--	39	--	39
Northeast	17,853	3,162	71,241	15,807	4,066	112,129
Michigan	8,682	1,338	19,100	3,879	3,364	36,363
Wisconsin	12,270	2,526	14,892	2,830	2,339	34,857
Minnesota	23,380	2,311	18,466	3,952	2,636	50,745
Lakes States	44,332	6,175	52,458	10,661	8,339	121,965
Ohio	12,584	2,374	6,422	3,038	1,806	26,224
Indiana	14,071	2,038	3,870	2,007	1,116	23,102
Illinois	25,466	2,614	3,745	3,289	565	35,679
Iowa	28,398	2,089	2,250	2,104	961	35,802
Missouri	21,450	4,833	14,828	2,378	668	44,157
Corn Belt	101,969	13,948	31,115	12,816	5,116	164,964
North Dakota	30,187	11,278	422	1,469	983	44,339
South Dakota	20,844	24,030	1,699	1,821	217	48,611
Nebraska	23,379	22,479	1,031	1,719	641	48,949
Kansas	32,827	15,453	1,344	2,234	486	52,344
Northern Plains	107,237	72,940	4,496	7,243	2,327	194,243
Virginia	4,925	2,282	16,075	1,961	216	25,459
West Virginia	1,763	863	12,126	597	56	15,405
North Carolina	6,480	1,216	20,224	2,693	618	31,231
Kentucky	9,810	1,871	11,887	1,524	284	25,376
Tennessee	8,652	2,195	12,820	2,236	547	26,450
Appalachian	31,630	8,427	73,132	9,011	1,721	123,921
South Carolina	3,663	979	12,403	1,614	685	19,344
Georgia	7,103	1,275	25,157	2,747	885	37,167
Florida	3,773	5,834	17,753	4,794	2,464	34,618
Alabama	5,885	2,410	21,748	1,909	500	32,452
Southeast	20,424	10,498	77,061	11,064	4,534	123,581
Mississippi	8,394	2,864	16,892	1,290	829	30,269
Arkansas	10,202	2,895	18,237	1,501	410	33,245
Louisiana	5,962	2,674	15,342	1,803	2,974	28,755
Delta States	24,558	8,433	50,471	4,594	4,213	92,269
Oklahoma	16,036	16,599	8,926	2,142	317	44,020
Texas	40,007	94,750	24,064	7,026	1,919	167,766
Southern Plains	56,043	111,349	32,990	9,168	2,236	211,786

See footnotes at end of table.

Continued

Appendix table 1--Major uses of land, by State and region, United States, 1969--Continued

State and region	Cropland <u>1/</u>	Grassland : pasture and : range <u>2/</u>	Forest : land <u>3/</u>	Special : uses <u>4/</u>	Other : land <u>5/</u>	Approximate : land area <u>6/</u>
	1,000 acres					
Montana	16,493	49,873	19,899	4,405	2,506	93,176
Idaho	6,166	22,073	18,030	4,051	2,593	52,913
Wyoming	2,813	45,911	5,885	5,282	2,319	62,210
Colorado	11,105	29,711	19,387	3,121	3,086	66,410
New Mexico	2,351	51,025	17,256	5,189	1,882	77,703
Arizona	1,665	41,354	17,420	8,102	4,046	72,587
Utah	1,983	24,893	14,720	5,050	5,895	52,541
Nevada	783	48,638	7,255	7,243	6,409	70,328
Mountain	43,359	313,478	119,852	42,443	28,736	547,868
Washington	8,278	6,982	20,739	5,498	1,108	42,605
Oregon	5,145	22,756	29,387	2,520	1,749	61,557
California	10,879	22,856	39,826	15,834	10,676	100,071
Pacific	24,302	52,594	89,952	23,852	13,533	204,233
48 States	471,707	601,004	602,768	146,659	74,821	1,896,959
Alaska	18	1,624	118,276	30,529	212,069	362,516
Hawaii	372	987	1,626	617	510	4,112
U.S. total	472,097	603,615	722,670	177,805	287,400	2,263,587

1/ Total acreage in the crop rotation.

2/ Grassland and other nonforested pasture in farms excluding cropland used only for pasture, plus estimates of open or nonforested grazing land not in farms.

3/ Forest land, excluding reserved forest land and some unreserved areas duplicated in parks and other special uses of land. Total forest land is shown in appendix table 9.

4/ Urban, transportation, recreational, and other special uses of land specified in appendix table 10.

5/ Miscellaneous areas with low agricultural use value, such as marshes, open swams, bare rock areas, deserts, and tundra.

6/ Approximate land area as developed by the Bureau of the Census in conjunction with the 1970 Census of Population (6, 1972). Includes all dryland and land temporarily or partially covered with water, such as marshland, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than one-eighth mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

Appendix table 2--Major uses of land in farms, by State and region, United States, 1969

State and region	Cropland <u>1/</u>	Grassland pasture <u>2/</u>	Forest land <u>3/</u>	Other land	Total acreage	Percentage of land area
	1,000 acres					Percent
Maine	735	66	876	83	1,760	8.9
New Hampshire	198	23	360	32	613	10.6
Vermont	867	191	792	66	1,916	32.3
Massachusetts	288	49	310	54	701	14.0
Rhode Island	32	5	26	6	69	10.2
Connecticut	252	54	192	43	541	17.4
New York	6,276	1,190	2,190	492	10,148	33.2
New Jersey	713	61	186	76	1,036	21.5
Pennsylvania	6,065	565	1,961	310	8,901	30.9
Delaware	533	10	121	10	674	53.1
Maryland	1,894	184	627	98	2,803	44.3
District of Columbia	--	--	--	--	--	--
Northeast	17,853	2,398	7,641	1,270	29,162	26.0
Michigan	8,682	499	1,844	876	11,901	32.7
Wisconsin	12,270	1,264	4,101	474	18,109	52.0
Minnesota	23,380	1,496	2,844	1,125	28,845	56.8
Lakes States	44,332	3,259	8,789	2,475	58,855	48.3
Ohio	12,584	1,413	2,179	935	17,111	65.2
Indiana	14,071	797	2,141	564	17,573	76.1
Illinois	25,466	1,281	2,296	870	29,913	83.8
Iowa	28,398	2,089	1,630	1,453	33,570	93.8
Missouri	21,450	4,139	5,847	984	32,420	73.4
Corn Belt	101,969	9,719	14,093	4,806	130,587	79.2
North Dakota	30,187	11,278	422	1,231	43,118	97.3
South Dakota	20,844	24,030	288	422	45,584	93.8
Nebraska	23,379	21,221	490	744	45,834	93.6
Kansas	32,827	15,212	777	574	49,390	94.4
Northern Plains	107,237	71,741	1,977	2,971	183,926	94.7
Virginia	4,925	1,623	3,912	190	10,650	41.8
West Virginia	1,763	863	1,663	52	4,341	28.2
North Carolina	6,480	875	5,053	326	12,734	40.8
Kentucky	9,810	1,871	3,823	464	15,968	62.9
Tennessee	8,652	1,444	4,375	586	15,057	56.9
Appalachian	31,630	6,676	18,826	1,618	58,750	47.4
South Carolina	3,663	447	2,747	135	6,992	36.1
Georgia	7,103	1,275	6,958	470	15,806	42.5
Florida	3,773	5,581	3,814	864	14,032	40.5
Alabama	5,885	1,976	5,320	473	13,654	42.1
Southeast	20,424	9,279	18,839	1,942	50,484	40.9
Mississippi	8,394	2,374	4,841	431	16,040	53.0
Arkansas	10,202	1,893	3,239	361	15,695	47.2
Louisiana	5,962	1,542	1,916	369	9,789	34.0
Delta States	24,558	5,809	9,996	1,161	41,524	45.0
Oklahoma	16,036	16,599	2,757	616	36,008	81.8
Texas	40,007	91,860	8,733	1,967	142,567	85.0
Southern Plains	56,043	108,459	11,490	2,583	178,575	84.3

See footnotes at end of table.

Continued

Appendix table 2--Major uses of land in farms, by State and region, United States, 1969--Continued

State and region	Cropland <sup>1/</sup>	Grassland pasture <sup>2/</sup>	Forest land <sup>3/</sup>	Other land	Total acreage	Percentage of land area
	1,000 acres					Percent
Montana	16,493	43,887	1,753	785	62,918	67.5
Idaho	6,166	6,758	972	521	14,417	27.2
Wyoming	2,813	31,584	504	575	35,476	57.0
Colorado	11,105	23,484	1,479	629	36,697	55.3
New Mexico	2,351	40,772	2,943	725	46,791	60.2
Arizona	1,665	29,447	5,070	2,020	38,202	52.6
Utah	1,983	8,791	230	309	11,313	21.5
Nevada	783	9,669	34	222	10,708	15.2
Mountain	43,359	194,392	12,985	5,786	256,522	46.8
Washington	8,278	5,722	3,108	451	17,559	41.2
Oregon	5,145	10,337	2,030	506	18,018	29.3
California	10,879	21,254	2,038	1,551	35,722	35.7
Pacific	24,302	37,313	7,176	2,508	71,299	34.9
48 States	471,707	449,045	111,812	27,120	1,059,684	55.9
Alaska	18	1,527	34	25	1,604	0.4
Hawaii	372	987	167	532	2,058	50.1
U.S. total	472,097	451,559	112,013	27,677	1,063,346	47.0

<sup>1/</sup> Total cropland reported by the Census of Agriculture adjusted upward about 3 percent to compensate for underenumeration of cropland harvested.

<sup>2/</sup> Grassland and other nonforested pasture exclusive of cropland pasture. Includes estimates of grassland pasture in class VI, part-time, part-retirement, and abnormal farms.

<sup>3/</sup> As reported by the U.S. Census of Agriculture (5, 1972).

<sup>4/</sup> Includes farmsteads, farm roads and lanes, ditches, and miscellaneous other areas. The upward adjustment in cropland harvested was compensated for by a reduction in the acreage of other land in farms reported by the U.S. Census of Agriculture (5, 1972).

Appendix table 3--Major uses of land not in farms, by State and region, United States, 1969

State and region	Pasture and range <u>1/</u>	Forest land not grazed <u>2/</u>	Other land <u>3/</u>	Total <u>4/</u>
	<u>1,000 acres</u>			
Maine	116	16,721	1,192	18,029
New Hampshire	38	4,682	444	5,164
Vermont	113	3,578	324	4,015
Massachusetts	4	3,098	1,206	4,308
Rhode Island	--	403	199	602
Connecticut	3	1,924	644	2,571
New York	245	12,567	7,652	20,464
New Jersey	1	2,209	1,567	3,777
Pennsylvania	311	15,650	3,916	19,877
Delaware	25	268	301	594
Maryland	118	2,290	1,119	3,527
District of Columbia	--	--	39	39
Northeast	974	63,390	18,603	82,967
Michigan	872	17,223	6,367	24,462
Wisconsin	1,373	10,680	4,695	16,748
Minnesota	1,048	15,389	5,463	21,900
Lake States	3,293	43,292	16,525	63,110
Ohio	1,209	3,995	3,909	9,113
Indiana	1,293	1,677	2,559	5,529
Illinois	1,402	1,380	2,984	5,766
Iowa	383	237	1,612	2,232
Missouri	3,882	5,793	2,062	11,737
Corn Belt	8,169	13,082	13,126	34,377
North Dakota	--	--	1,221	1,221
South Dakota	736	675	1,616	3,027
Nebraska	1,268	231	1,616	3,115
Kansas	344	464	2,146	2,954
Northern Plains	2,348	1,370	6,599	10,317
Virginia	725	12,097	1,987	14,809
West Virginia	198	10,265	601	11,064
North Carolina	453	15,059	2,985	18,497
Kentucky	124	7,940	1,344	9,408
Tennessee	850	8,346	2,197	11,393
Appalachian	2,350	53,707	9,114	65,171
South Carolina	697	9,491	2,164	12,352
Georgia	116	18,083	3,162	21,361
Florida	5,651	8,541	6,394	20,586
Alabama	629	16,233	1,936	18,798
Southeast	7,093	52,348	13,656	73,097
Mississippi	4,595	7,946	1,688	14,229
Arkansas	5,192	10,808	1,550	17,550
Louisiana	8,732	5,826	4,408	18,966
Delta States	18,519	24,580	7,646	50,745
Oklahoma	4,981	1,188	1,843	8,012
Texas	14,188	4,033	6,978	25,199
Southern Plains	19,169	5,221	8,821	33,211

See footnotes at end of table.

Continued

Appendix table 3--Major uses of land not in farms, by State and region, United States, 1969--Continued

State and region	Pasture and range <u>1/</u>	Forest land not grazed <u>2/</u>	Other land <u>3/</u>	Total <u>4/</u>
	<u>1,000 acres</u>			
Montana	12,845	11,287	6,126	30,258
Idaho	19,889	12,484	6,123	38,496
Wyoming	16,776	2,932	7,026	26,734
Colorado	15,201	8,934	5,578	29,713
New Mexico	22,369	2,197	6,346	30,912
Arizona	23,138	1,119	10,128	34,385
Utah	29,898	694	10,636	41,228
Nevada	46,057	133	13,430	59,620
Mountain	186,173	39,780	65,393	291,346
Washington	3,486	15,405	6,155	25,046
Oregon	22,464	17,312	3,763	43,539
California	13,010	26,380	24,959	64,349
Pacific	38,960	59,097	34,877	132,934
48 States	287,048	355,867	194,360	837,275
Alaska	198	118,141	242,573	360,912
Hawaii	432	1,027	595	2,054
U.S. total	287,678	475,035	437,528	1,200,241

1/ Estimated acreage of forested and nonforested grazing land not in farms including some acreages classified as usable but not necessarily grazed each year. The estimates are based on reports and records of the various land management and conservation agencies.

2/ Excludes reserved forest land in parks and other special uses.

3/ Other land not in farms includes various special uses of land and miscellaneous land generally having low value for agricultural purposes.

4/ Total land areas shown in appendix table 1 minus land in farms as reported by the U.S. Census of Agriculture (5, 1972).

Appendix table 4--Major uses of cropland, by State and region, United States, 1969

State and region	Cropland used for crops <u>1/</u>	Cropland used for soil im- provement crops and idle <u>2/</u>	Cropland used only for pasture <u>3/</u>	Total cropland <u>4/</u>
<u>1,000 acres</u>				
Maine.....	491	125	119	735
New Hampshire.....	126	16	56	198
Vermont.....	543	45	279	867
Massachusetts.....	199	17	72	288
Rhode Island.....	21	2	9	32
Connecticut.....	162	21	69	252
New York.....	4,060	724	1,492	6,276
New Jersey.....	510	107	96	713
Pennsylvania.....	4,264	647	1,154	6,065
Delaware.....	454	52	27	533
Maryland.....	1,374	224	296	1,894
<b>Northeast.....</b>	<b>12,204</b>	<b>1,980</b>	<b>3,669</b>	<b>17,853</b>
Michigan.....	5,677	1,914	1,091	8,682
Wisconsin.....	8,944	1,225	2,101	12,270
Minnesota.....	16,886	4,393	2,101	23,380
<b>Lake States.....</b>	<b>31,507</b>	<b>7,532</b>	<b>5,293</b>	<b>44,332</b>
Ohio.....	8,790	2,068	1,726	12,584
Indiana.....	10,251	2,248	1,572	14,071
Illinois.....	20,310	2,977	2,179	25,466
Iowa.....	20,189	4,201	4,008	28,398
Missouri.....	11,178	2,871	7,401	21,450
<b>Corn Belt.....</b>	<b>70,718</b>	<b>14,365</b>	<b>16,886</b>	<b>101,969</b>
North Dakota.....	27,001	1,297	1,889	30,187
South Dakota.....	16,327	1,519	2,998	20,844
Nebraska.....	18,646	2,272	2,461	23,379
Kansas.....	26,339	2,563	3,925	32,827
<b>Northern Plains.....</b>	<b>88,313</b>	<b>7,651</b>	<b>11,273</b>	<b>107,237</b>
Virginia.....	2,629	564	1,732	4,925
West Virginia.....	754	123	886	1,763
North Carolina.....	4,032	1,335	1,113	6,480
Kentucky.....	3,572	1,322	4,916	9,810
Tennessee.....	3,771	1,100	3,781	8,652
<b>Appalachian.....</b>	<b>14,758</b>	<b>4,444</b>	<b>12,428</b>	<b>31,630</b>
South Carolina.....	2,326	643	694	3,663
Georgia.....	4,057	1,208	1,838	7,103
Florida.....	2,267	504	1,002	3,773
Alabama.....	2,889	896	2,100	5,885
<b>Southeast.....</b>	<b>11,539</b>	<b>3,251</b>	<b>5,634</b>	<b>20,424</b>

See footnotes at end of table.

Continued

Appendix table 4--Major uses of cropland, by State and region, United States, 1969--Continued

State and region	Cropland used for crops <u>1/</u>	Cropland used for soil im- provement crops and idle <u>2/</u>	Cropland used only for pasture <u>3/</u>	Total cropland <u>4/</u>
	<u>1,000 acres</u>			
Mississippi.....	5,048	923	2,423	8,394
Arkansas.....	7,120	469	2,613	10,202
Louisiana.....	3,765	549	1,648	5,962
Delta States.....	15,933	1,941	6,684	24,558
Oklahoma.....	9,920	1,212	4,904	16,036
Texas.....	23,987	4,091	11,929	40,007
Southern Plains.....	33,907	5,303	16,833	56,043
Montana.....	14,473	579	1,441	16,493
Idaho.....	4,901	298	967	6,166
Wyoming.....	2,115	97	604	2,813
Colorado.....	8,826	890	1,389	11,105
New Mexico.....	1,371	467	513	2,351
Arizona.....	1,251	268	146	1,665
Utah.....	1,340	136	507	1,983
Nevada.....	573	48	162	783
Mountain.....	34,850	2,783	5,726	43,359
Washington.....	6,989	455	834	8,278
Oregon.....	3,818	250	1,077	5,145
California.....	8,242	793	1,844	10,879
Pacific.....	19,049	1,498	3,755	24,302
48 States.....	332,778	50,748	88,181	471,707
Alaska.....	14	1	3	18
Hawaii.....	176	160	36	372
U.S. Total.....	332,968	50,909	88,220	472,097

1/ Includes cropland harvested, crop failure, and cultivated summer fallow. An upward adjustment of about 3 percent in the acreage of cropland harvested reported by the Census of Agriculture (5, 1972) was made to conform with acreages of crops harvested estimated by the Statistical Reporting Service (12).

2/ Cropland in cover and soil improvement crops not harvested or pastured and other idle cropland based mainly on (5, 1972).

3/ Land in the crop rotation used only for pasture in 1969 as reported by (5, 1972).

4/ Total acreage in the crop rotation.

Appendix table 5--Pasture in farms, by type, State and region, United States, 1969

State and region	Cropland used only for pasture <u>1/</u>	Open permanent pasture <u>2/</u>	Forest land pasture <u>2/</u>	Total
	1,000 acres			
Maine.....	119	66	157	342
New Hampshire.....	56	23	71	150
Vermont.....	299	191	266	736
Massachusetts.....	72	49	81	202
Rhode Island.....	9	5	6	20
Connecticut.....	69	54	53	176
New York.....	1,492	1,190	683	3,365
New Jersey.....	96	61	28	185
Pennsylvania.....	1,154	565	520	2,239
Delaware.....	27	10	20	57
Maryland.....	296	184	143	623
<b>Northeast.....</b>	<b>3,669</b>	<b>2,398</b>	<b>2,028</b>	<b>8,095</b>
Michigan.....	1,091	499	620	2,210
Wisconsin.....	2,101	1,264	2,099	5,464
Minnesota.....	2,101	1,496	1,639	5,236
<b>Lake States.....</b>	<b>5,293</b>	<b>3,259</b>	<b>4,358</b>	<b>12,910</b>
Ohio.....	1,726	1,413	848	3,987
Indiana.....	1,572	797	893	3,262
Illinois.....	2,179	1,281	1,182	4,642
Iowa.....	4,008	2,089	1,219	7,316
Missouri.....	7,401	4,139	3,893	15,433
<b>Corn Belt.....</b>	<b>16,886</b>	<b>9,719</b>	<b>8,035</b>	<b>34,640</b>
North Dakota.....	1,889	11,278	264	13,431
South Dakota.....	2,998	24,030	190	27,218
Nebraska.....	2,461	21,221	321	24,003
Kansas.....	3,925	15,212	434	19,571
<b>Northern Plains.....</b>	<b>11,273</b>	<b>71,741</b>	<b>1,209</b>	<b>84,223</b>
Virginia.....	1,732	1,623	1,179	4,534
West Virginia.....	886	863	682	2,431
North Carolina.....	1,113	875	1,129	3,117
Kentucky.....	4,916	1,871	1,398	8,185
Tennessee.....	3,781	1,444	1,682	6,907
<b>Appalachian.....</b>	<b>12,428</b>	<b>6,676</b>	<b>6,070</b>	<b>25,174</b>
South Carolina.....	694	447	753	1,894
Georgia.....	1,838	1,275	2,140	5,253
Florida.....	1,002	5,581	2,736	9,319
Alabama.....	2,100	1,976	2,116	6,192
<b>Southeast.....</b>	<b>5,634</b>	<b>9,279</b>	<b>7,745</b>	<b>22,658</b>

See footnotes at end of table.

Continued

Appendix table 5--Pasture in farms, by type, State and region, United States, 1969--Continued

State and region	Cropland used only for pasture <sup>1/</sup>	Open permanent pasture <sup>2/</sup>	Forest land pasture <sup>2/</sup>	Total
	1,000 acres			
Mississippi.....	2,423	2,374	2,649	7,446
Arkansas.....	2,613	1,893	1,866	6,372
Louisiana.....	1,648	1,542	981	4,171
Delta States.....	6,684	5,809	5,496	17,989
Oklahoma.....	4,904	16,599	2,325	23,828
Texas.....	11,929	91,860	7,737	111,526
Southern Plains.....	16,833	108,459	10,062	135,354
Montana.....	1,441	43,887	1,454	46,782
Idaho.....	967	6,758	770	8,495
Wyoming.....	601	31,584	448	32,633
Colorado.....	1,389	23,484	1,236	26,109
New Mexico.....	513	40,772	2,813	44,098
Arizona.....	146	29,447	5,059	34,652
Utah.....	507	8,791	179	9,477
Nevada.....	162	9,669	25	9,856
Mountain.....	5,726	194,392	11,984	212,102
Washington.....	834	5,722	2,388	8,944
Oregon.....	1,077	10,337	1,600	13,014
California.....	1,844	21,254	1,417	24,515
Pacific.....	3,755	37,313	5,405	46,473
48 States.....	88,181	449,045	62,392	599,618
Alaska.....	3	1,527	10	1,540
Hawaii.....	36	987	19	1,042
U.S. Total.....	88,220	451,559	62,421	602,200

<sup>1/</sup> As reported by (5, 1972).

<sup>2/</sup> Acreages in farms in economic classes 1-5 as reported by (5, 1972), plus estimated acreage in other farms.

Appendix table 6--Total pasture and range, by State and region, United States, 1969

State and Region	Grassland <u>1/</u>	Forest land <u>2/</u>	Total <u>3/</u>	State and Region	Grassland <u>1/</u>	Forest land <u>2/</u>	Total <u>3/</u>
	1,000 acres				1,000 acres		
Maine.....	293	165	458	South Carolina.....	1,673	918	2,591
New Hampshire.....	113	75	188	Georgia.....	3,113	2,256	5,369
Vermont.....	569	280	849	Florida.....	6,836	8,134	14,970
Massachusetts.....	121	85	206	Alabama.....	4,510	2,311	6,821
Rhode Island.....	14	6	20	Southeast.....	16,132	13,619	29,751
Connecticut.....	123	56	179	Mississippi.....	5,287	6,754	12,041
New York.....	2,787	823	3,610	Arkansas.....	5,508	6,056	11,564
New Jersey.....	157	29	186	Louisiana.....	4,322	8,581	12,903
Pennsylvania.....	2,003	547	2,550	Delta States.....	15,117	21,391	36,508
Delaware.....	61	21	82	Oklahoma.....	21,503	7,306	28,809
Maryland.....	590	151	741	Texas.....	106,679	19,035	125,714
Northeast.....	6,831	2,238	9,069	Southern Plains..	128,182	26,341	154,523
Michigan.....	2,429	653	3,082	Montana.....	51,314	8,313	59,627
Wisconsin.....	4,627	2,210	6,837	Idaho.....	23,040	5,344	28,384
Minnesota.....	4,412	1,872	6,284	Wyoming.....	46,512	2,897	49,409
Lake States	11,468	4,735	16,203	Colorado.....	31,100	10,210	41,310
Ohio.....	4,100	1,096	5,196	New Mexico.....	51,538	14,929	66,467
Indiana.....	3,610	945	4,555	Arizona.....	41,500	16,290	57,790
Illinois.....	4,793	1,251	6,044	Utah.....	25,400	13,975	39,375
Iowa.....	6,097	1,602	7,699	Nevada.....	48,800	7,113	55,913
Missouri.....	12,234	7,081	19,315	Mountain.....	319,204	79,071	398,275
Corn Belt.....	30,834	11,975	42,809	Washington.....	7,816	4,614	12,430
North Dakota.....	13,167	264	13,431	Oregon.....	23,833	11,645	35,478
South Dakota.....	27,028	926	27,954	California.....	24,700	12,825	37,525
Nebraska.....	24,640	631	25,271	Pacific.....	56,349	29,084	85,433
Kansas.....	19,378	537	19,915	48 States.....	689,185	197,481	886,666
Northern Plains...	84,213	2,358	86,571	Alaska.....	1,627	111	1,738
Virginia.....	4,014	1,245	5,259	Hawaii.....	1,023	451	1,474
West Virginia.....	1,749	880	2,629	U.S. Total...	691,835	198,043	889,878
North Carolina.....	2,329	1,241	3,570				
Kentucky.....	6,787	1,522	8,309				
Tennessee.....	5,976	1,781	7,757				
Appalachian.....	20,855	6,669	27,524				

1/ Cropland used only for pasture, and permanent grassland pasture and range.

2/ Woodland pasture in farms, plus an approximation of forested grazing land not in farms.

3/ Total pasture and range in farms, plus estimates of usable grazing land not in farms.

Estimates based on reports and records of (5, 1972) and Federal and State land management and conservation agencies.

Appendix table 7--Federal pasture and range, by type, State and region, United States, 1969

State and region	Grassland range <u>1/</u>	Forest and Woodland <u>2/</u>	Other range <u>3/</u>	Total Federal range <u>4/</u>
<u>1,000 acres</u>				
North Dakota.....	1,154	124	4	1,282
South Dakota.....	1,641	295	700	2,636
Nebraska.....	418	61	2	481
Kansas.....	188	--	10	198
Northern Plains.....	3,401	480	716	4,597
Oklahoma.....	194	238	50	482
Texas.....	617	678	55	1,350
Southern Plains.....	811	916	105	1,832
Montana.....	8,986	3,868	3,976	16,830
Idaho.....	14,589	3,043	6,811	24,443
Wyoming.....	19,179	1,534	4,043	24,756
Colorado.....	8,735	5,084	7,436	21,255
New Mexico.....	13,077	6,432	3,365	22,874
Arizona.....	15,497	6,545	3,805	25,847
Utah.....	14,976	9,622	6,154	30,752
Nevada.....	41,077	6,828	4,352	52,257
Mountain.....	136,116	42,956	39,942	219,014
Washington.....	789	1,110	3,169	5,068
Oregon.....	12,458	7,077	4,504	24,039
California.....	9,513	3,716	7,327	20,556
Pacific.....	22,760	11,903	15,000	49,663
17 Western States.....	163,088	56,255	55,763	275,106
31 Eastern States.....	416	3,333	1,283	5,032
48 States.....	163,504	59,588	57,046	280,138
Alaska.....	1,338	100	--	1,438
Hawaii.....	4	--	--	4
U.S. Total.....	164,846	59,688	57,046	281,580

1/An approximation of grassland, shrub, and brushland (not classified as forest) used or usable for livestock grazing.

2/An approximation of open forest range used or usable for grazing.

3/Densely forested and other areas in National Forest system range allotments and Federal grazing districts, having little utility for grazing but which form part of the total range environment. This acreage is omitted from pasture and range acreages shown elsewhere in this publication.

4/Approximate range, assembled from data of the principal Federal land administering agencies.

Appendix table 8--State land used for farming and grazing, United States, 1968

State and region	Farming <u>1/</u>	Grazing <u>1/</u>	Total <u>2/</u>
		<u>1,000 acres</u>	
North Dakota.....	22	801	823
South Dakota.....	--	1,240	1,240
Nebraska.....	321	1,285	1,606
Kansas.....	--	--	--
Northern Plains....	343	3,326	3,669
Oklahoma.....	304	456	760
Texas.....	31	2,647	2,678
Southern Plains....	335	3,103	3,438
Montana.....	491	4,158	4,649
Idaho.....	56	1,713	1,769
Wyoming.....	--	3,648	3,648
Colorado.....	169	2,702	2,871
New Mexico.....	116	10,731	10,847
Arizona.....	312	8,828	9,140
Utah.....	--	3,586	3,586
Nevada.....	--	--	--
Mountain.....	1,144	35,366	36,510
Washington.....	138	1,117	1,255
Oregon.....	--	645	645
California.....	--	68	68
Pacific.....	138	1,830	1,968
17 Western States....	1,960	43,625	45,585
Other States.....	329	473	802
U.S. Total.....	2,289	44,098	46,387

1/ Approximate acreage leased out for purpose indicated.

2/ Includes a small amount classified as forested grazing land.

Data supplied by the Public Land Law Review Commission.

Appendix table 9--Forest land in farms and not in farms, by State and region, United States, 1969

State and region	In farms <sup>1/</sup>	Not in farms	Total <sup>2/</sup>	State and region	In farms <sup>1/</sup>	Not in farms	Total <sup>2/</sup>
	1,000 acres				1,000 acres		
Maine.....	876	16,872	17,748	South Carolina.....	2,747	9,746	12,493
New Hampshire.....	360	4,771	5,131	Georgia.....	6,958	18,587	25,545
Vermont.....	792	3,599	4,391	Florida.....	3,814	14,118	17,932
Massachusetts.....	310	3,210	3,520	Alabama.....	5,320	16,450	21,770
Rhode Island.....	26	407	433	Southeast.....	18,839	58,901	77,740
Connecticut.....	192	1,994	2,186	Mississippi.....	4,841	12,072	16,913
New York.....	2,190	15,187	17,377	Arkansas.....	3,239	15,038	18,277
New Jersey.....	186	2,277	2,463	Louisiana.....	1,916	13,464	15,380
Pennsylvania.....	1,961	15,871	17,832	Delta States.....	9,996	40,574	50,570
Delaware.....	121	270	391	Oklahoma.....	2,757	6,583	9,340
Maryland.....	627	2,333	2,960	Texas.....	8,733	15,358	24,091
District of Columbia..	--	--	--	Southern Plains.....	11,490	21,941	33,431
Northeast.....	7,641	66,791	74,432	Montana.....	1,753	21,024	22,777
Michigan.....	1,844	17,429	19,273	Idaho.....	972	20,619	21,591
Wisconsin.....	4,101	10,844	14,945	Wyoming.....	504	9,581	10,085
Minnesota.....	2,844	16,140	18,984	Colorado.....	1,479	21,055	22,534
Lake States.....	8,789	44,413	53,202	New Mexico.....	2,943	15,370	18,313
Ohio.....	2,179	4,319	6,498	Arizona.....	5,070	13,513	18,583
Indiana.....	2,141	1,767	3,908	Utah.....	230	15,058	15,288
Illinois.....	2,296	1,493	3,789	Nevada.....	34	7,626	7,660
Iowa.....	1,630	825	2,455	Mountain.....	12,985	123,846	136,831
Missouri.....	5,847	9,072	14,919	Washington.....	3,108	19,990	23,098
Corn Belt.....	14,093	17,476	31,569	Oregon.....	2,030	28,374	30,404
North Dakota.....	422	--	422	California.....	2,038	40,370	42,408
South Dakota.....	288	1,445	1,733	Pacific.....	7,176	88,734	95,910
Nebraska.....	490	555	1,045	48 States.....	111,812	520,694	632,506
Kansas.....	777	566	1,343	Alaska.....	34	119,017	119,051
Northern Plains.....	1,977	2,566	4,543	Hawaii.....	167	1,807	1,974
Virginia.....	3,912	12,477	16,389	U.S. total.....	112,013	641,518	753,531
West Virginia.....	1,663	10,509	12,172				
North Carolina.....	5,053	15,560	20,613				
Kentucky.....	3,823	8,145	11,968				
Tennessee.....	4,375	8,761	13,136				
Appalachian.....	18,826	55,452	74,278				

<sup>1/</sup> As reported by the Census of Agriculture (5, 1972).<sup>2/</sup> Total forest land, including reserved areas duplicated in parks and other special uses of land, as reported by the U.S. Forest Service (9).

Appendix table 10--Land in special use area, by State and region, United States, 1969

State and region	Urban areas 1/	Rural transportation areas 2/	Rural parks 3/	Wild-life refuge 4/	National defense and industrial areas 5/	State institutional and miscellaneous uses 6/	Farmsteads, farm roads and lanes 7/	Total
1,000 acres								
Maine.....	235	187	288	48	21	8	20	807
New Hampshire.....	172	80	16	6	7	7	6	294
Vermont.....	59	75	13	69	12	6	16	250
Massachusetts.....	955	91	79	25	26	30	13	1,219
Rhode Island.....	154	10	11	8	7	9	2	201
Connecticut.....	536	59	24	13	1	11	10	654
New York.....	1,778	571	2,942	161	173	48	123	5,796
New Jersey.....	1,201	111	54	104	66	18	19	1,573
Pennsylvania.....	1,549	684	293	1,066	31	51	136	3,810
Delaware.....	86	30	6	39	4	10	8	183
Maryland.....	518	139	69	79	127	16	33	981
District of Columbia..	39	--	--	--	--	--	--	39
Northeast.....	7,282	2,037	3,795	1,618	475	214	386	15,807
Michigan.....	1,387	975	799	388	26	41	263	3,879
Wisconsin.....	843	897	39	635	69	17	330	2,830
Minnesota.....	810	1,136	897	679	5	10	415	3,952
Lake States.....	3,040	3,008	1,735	1,702	100	68	1,008	10,661
Ohio.....	1,796	605	96	89	45	31	376	3,038
Indiana.....	852	508	51	70	185	8	333	2,007
Illinois.....	1,539	1,080	58	105	64	28	415	3,289
Iowa.....	570	845	35	123	20	19	492	2,104
Missouri.....	837	689	150	145	75	31	451	2,378
Corn Belt.....	5,594	3,727	390	532	389	117	2,067	12,816
North Dakota.....	84	683	76	327	33	18	248	1,469
South Dakota.....	106	742	351	145	248	10	219	1,821
Nebraska.....	214	936	30	174	37	22	306	1,719
Kansas.....	429	1,134	34	69	172	34	362	2,234
Northern Plains.....	833	3,495	491	715	490	84	1,135	7,243
Virginia.....	774	366	309	150	193	33	136	1,961
West Virginia.....	197	191	62	70	2	25	50	597
North Carolina.....	823	626	436	288	289	26	205	2,693
Kentucky.....	444	487	110	54	168	34	227	1,524
Tennessee.....	784	439	398	162	190	39	224	2,236
Appalachian.....	3,022	2,109	1,315	724	842	157	842	9,011
South Carolina.....	490	447	64	163	298	50	102	1,614
Georgia.....	963	545	56	428	549	51	155	2,747
Florida.....	1,587	714	1,056	255	703	364	115	4,794
Alabama.....	792	612	50	39	179	87	150	1,909
Southeast.....	3,832	2,318	1,226	885	1,729	552	522	11,064
Mississippi.....	439	404	50	78	21	75	223	1,290
Arkansas.....	401	414	27	341	95	21	202	1,501
Louisiana.....	592	364	13	495	149	20	170	1,803
Delta States.....	1,432	1,182	90	914	265	116	595	4,594
Oklahoma.....	557	628	73	342	183	60	299	2,142
Texas.....	2,731	1,677	1,095	351	480	224	468	7,026
Southern Plains.....	3,288	2,305	1,168	693	663	284	767	9,168

See footnotes at end of table.

Continued

Appendix table 10--Land in special use area, by State and region, United States, 1969--Continued

State and region	Urban areas <u>1/</u>	Rural transportation areas <u>2/</u>	Rural parks <u>3/</u>	Wild-life refuge <u>4/</u>	National defense and industrial areas <u>5/</u>	State institutional and miscellaneous uses <u>6/</u>	Farmsteads, farm roads and lanes <u>7/</u>	Total
1,000 acres								
Montana.....	93	733	3,116	279	16	40	128	4,405
Idaho.....	122	286	2,745	87	691	18	102	4,051
Wyoming.....	61	375	4,674	85	26	8	53	5,282
Colorado.....	365	704	1,400	189	297	34	132	3,121
New Mexico.....	252	408	1,273	332	2,832	33	59	5,189
Arizona.....	435	326	3,603	113	3,577	11	37	8,102
Utah.....	273	269	2,244	314	1,882	15	53	5,050
Nevada.....	135	496	927	1,701	3,964	6	14	7,243
Mountain.....	1,736	3,597	19,982	3,100	13,285	165	578	42,443
Washington.....	667	363	3,073	498	756	22	119	5,498
Oregon.....	362	421	988	553	66	27	103	2,520
California.....	3,302	1,143	7,019	183	3,828	86	273	15,834
Pacific.....	4,331	1,927	11,080	1,234	4,650	135	495	23,852
48 States.....	34,390	25,705	41,272	12,117	22,888	1,892	8,395	146,659
Alaska.....	59	208	7,784	19,937	2,523	15	3	30,529
Hawaii.....	141	40	225	2	176	11	22	617
U.S. Total.....	34,590	25,953	49,281	32,056	25,587	1,918	8,420	177,805

1/ Areas of urbanized areas and other incorporated and unincorporated places of 1,000 population or more. Estimates are based on area data for urban places developed in conjunction with the 1970 Census of Population (6) but differs in that (1) census reported areas were substantially adjusted to minimize the inclusion of vacant land and (2) places of 1,000-2,500 population are included.

2/ Includes rural highways and roads, railroads, and airports. Estimates of area in highways were derived by applying average right-of-way widths reported by State highway departments to the mileage in different highway systems reported by the Federal Highway Administration. Estimates of acreage in railroad rights-of-way are based on state-by-state changes in mileage reported by the Interstate Commerce Commission. Estimates of acreage in airports based on information on active airports supplied by the Federal Aviation Administration. Excludes airports used strictly for personal or military use.

3/ Areas in national and State park systems and national forest wilderness and primitive areas plus 2.7 million acres in New York classified as State forest preserves. Excludes, in most instances, parks in urban places and large water bodies. Based on data from reports and records of the National Park Service, U.S. Forest Service, Public Land Law Review Commission, and individual State agencies.

4/ Areas administered by the U.S. Fish and Wildlife Service and State wildlife agencies. Does not include Federal areas under the primary jurisdiction of another agency or leased for wildlife purposes. Data are from reports and records of the U.S. Fish and Wildlife Service, Public Land Law Review Commission, and individual State agencies.

5/ As reported by the Bureau of Land Management (7). Includes land administered by the Department of Defense for military purposes (23.5 million acres) and land administered by the Atomic Energy Commission (2.1 million acres).

6/ Incomplete data on State-owned rural land held for educational, welfare, correctional, and other institutional purposes and miscellaneous uses such as national guard camps, fair grounds, radio stations, gravel pits, and water-storage areas.

7/ Estimates calculated on the basis of State-by-State number of farms and acreage of unclassified land in farms.

Appendix table 11.--Cropland used for crops and crop production per acre, 48 States, 1909-72

Year	Cropland Harvested <u>1/</u>	Crop Failure <u>2/</u>	Summer Fallow <u>3/</u>	Total crop- land used for crops	Index 1967=100 <u>4/</u>
<u>Million acres</u>					
1909.....	311	9	4	324	95
1910.....	317	9	4	330	97
1911.....	322	10	5	337	99
1912.....	320	12	5	337	99
1913.....	324	11	5	340	100
1914.....	326	11	5	342	101
1915.....	332	11	5	348	102
1916.....	332	11	5	348	102
1917.....	341	11	5	357	105
1918.....	353	12	5	370	109
1919.....	355	14	5	374	110
1920.....	351	12	5	368	108
1921.....	350	12	6	368	108
1922.....	346	13	6	365	107
1923.....	345	14	6	365	107
1924.....	346	13	6	365	107
1925.....	351	12	7	370	109
1926.....	350	14	8	372	109
1927.....	349	15	9	373	110
1928.....	352	14	10	376	110
1929.....	356	13	10	379	111
1930.....	360	11	11	382	112
1931.....	356	17	11	384	113
1932.....	361	11	12	384	113
1933.....	331	33	14	378	111
1934.....	296	64	15	375	110
1935.....	336	25	16	377	111
1936.....	314	43	18	375	110
1937.....	338	21	20	379	111
1938.....	340	13	19	372	109
1939.....	321	21	21	363	106
1940.....	331	16	21	368	107
1941.....	335	12	20	367	107
1942.....	339	11	20	370	108
1943.....	348	12	17	377	110
1944.....	353	10	16	379	110
1945.....	345	9	18	372	108
1946.....	343	8	18	369	108
1947.....	346	8	19	373	109
1948.....	348	9	21	378	110
1949.....	352	9	26	387	113
1950.....	337	11	29	377	110
1951.....	336	17	28	381	111
1952.....	341	11	28	380	111
1953.....	341	13	26	380	111
1954.....	339	13	28	380	111

See footnotes at end of table.

Continued

Appendix table 11.--Cropland used for crops and crop production per acre, 48 States, 1909-72--Continued

Year	Cropland Harvested <u>1/</u>	Crop Failure <u>2/</u>	Summer Fallow <u>3/</u>	Total cropland used for crops	Index 1967=100 <u>4/</u>
	<u>Million acres</u>				
1955.....	333	16	29	378	110
1956.....	317	22	30	369	107
1957.....	316	12	30	358	104
1958.....	316	9	30	355	103
1959.....	317	10	31	358	104
1960.....	317	6	32	355	104
1961.....	296	11	<b>33</b>	340	99
1962.....	287	10	34	331	97
1963.....	291	10	36	337	98
1964.....	292	6	37	335	98
1965.....	292	6	38	336	99
1966.....	289	5	38	332	98
1967.....	301	7	32	340	100
1968.....	296	6	33	335	98
1969.....	286	6	41	333	98
1970.....	289	5	38	332	97
1971.....	301	5	34	340	100
1972.....	290	6	38	334	98

1/ Includes land from which one or more crops were harvested. Estimates are based on data from (5, 1911-72) and annual estimates of crops harvested made by the Statistical Reporting Service and predecessor agencies.

2/ Estimates based on acreages reported by (5, 1925-45; 1964-69) and annual estimates of crops not harvested by the Statistical Reporting Service and predecessor agencies.

3/ Estimates for the 17 Western States only. Acreages are variously based on data from the censuses of Agriculture, Statistical Reporting Service, and, in earlier years, the Great Plains Council.

4/ Index numbers computed from unrounded data.

Appendix table 12--Crops harvested, 48 States, Census Years 1954-69 <sup>1/</sup>

Item	1954	1959	1964	1969
	Million acres			
Food crops:				
Food grains:				
Wheat	54.4	51.8	49.8	47.1
Rice	2.5	1.6	1.8	2.1
Rye	1.8	1.5	1.7	1.3
Buckwheat	.1	.1	2	2/
Total food grains	58.8	55.0	53.3	50.5
Irish potatoes	1.4	1.3	1.3	1.4
Sweetpotatoes	.3	.3	.2	.1
Dry beans	1.5	1.5	1.4	1.5
Dry peas	.3	.3	.3	.2
Cowpeas for peas	.3	.2	.1	2/
Sugarcane, all	.4	.3	.6	.5
Sugarbeets	.9	.9	1.4	1.5
Peanuts for nuts	1.4	1.5	1.4	1.5
Soybeans for beans	17.0	22.6	30.8	41.3
Fruits and planted nuts <sup>3/</sup>	4.5	4.6	4.6	4.4
Principal commercial vegetables	3.8	3.4	3.3	3.3
Total food crops	90.6	91.9	98.7	106.2
Feed crops:				
Feed grains:				
Corn	80.2	81.9	65.4	63.1
Oats	40.6	27.8	19.8	18.0
Barley	13.4	14.9	10.3	9.6
Sorghums, all	18.1	19.0	15.8	16.8
Total feed grains	152.3	143.6	111.3	107.5
All hay:				
Tame	59.6	55.0	56.8	51.4
Wild	12.9	10.8	10.5	8.3
Total hay	72.5	65.8	67.3	59.7
Total feed crops	224.8	209.4	178.6	167.2
Other crops:				
Cotton	19.3	15.1	14.1	11.1
Flaxseed	5.7	2.9	2.8	2.6
Tobacco	1.7	1.2	1.1	.9
Broomcorn	.3	.2	.2	.1
Sweetclover seed	.3	.1	.1	.1
Timothy seed	.3	.3	.2	.2
Minor crops <sup>4/</sup>	3.8	3.2	2.6	2.4
Total other crops	31.4	23.0	21.1	17.4
Total crops harvested <sup>5/</sup>	346.8	324.3	298.4	290.8

<sup>1/</sup> The principal crop acreages harvested are as reported in Field Crops (<sup>12</sup> and related reports by the Statistical Reporting Service. Acreages of fruit and planted nuts and some minor crops are based on the Censuses of Agriculture (5, 1954, 1959, 1964, and 1969).

<sup>2/</sup> Estimates discontinued.

<sup>3/</sup> Includes tree fruits, small fruits, and planted nut trees as reported by (5, 1954, 1959, 1964, and 1969).

<sup>4/</sup> Consists of allowances for certain vegetables and field crops not included in the 59 principal crops and various legumes and other crops harvested by livestock.

<sup>5/</sup> Includes acreages of some crops harvested in succession from the same land but excludes duplication in alfalfa, red clover, and lespedeza harvested for both hay and seed and peanuts harvested for both hay and nuts.

Appendix table 13--Irrigated land in farms, 17 Western States and United States, census years, 1949-69

State and region	1949	1954	1959	1964	1969
	1,000 acres				
North Dakota.....	35	38	48	51	63
South Dakota.....	78	90	116	130	150
Nebraska.....	876	1,171	2,078	2,169	2,857
Kansas.....	139	332	762	1,004	1,522
Northern Plains....	1,128	1,631	3,004	3,354	4,592
Oklahoma.....	34	108	198	302	524
Texas.....	3,132	4,707	5,656	6,385	6,888
Southern Plains....	3,166	4,815	5,854	6,687	7,412
Montana.....	1,717	1,891	1,875	1,893	1,841
Idaho.....	2,137	2,325	2,577	2,802	2,760
Wyoming.....	1,432	1,263	1,470	1,571	1,523
Colorado.....	2,872	2,263	2,685	2,690	2,895
New Mexico.....	655	650	732	813	823
Arizona.....	964	1,177	1,152	1,125	1,178
Utah.....	1,138	1,073	1,062	1,092	1,025
Nevada.....	727	567	543	824	753
Mountain.....	11,642	11,209	12,096	12,810	12,798
Washington.....	589	778	1,007	1,150	1,224
Oregon.....	1,307	1,490	1,384	1,608	1,519
California.....	6,438	7,048	7,396	7,599	7,240
Pacific.....	8,334	9,316	9,787	10,357	9,983
17 Western States....	24,270	26,971	30,741	33,208	34,785
Other States.....	1,635	2,581	2,423	3,848	4,344
U.S. Total.....	25,905	29,552	33,164	37,056	39,129

SOURCE: U.S. Census of Agriculture (5, 1950, 1954, 1959, 1964 and 1969).