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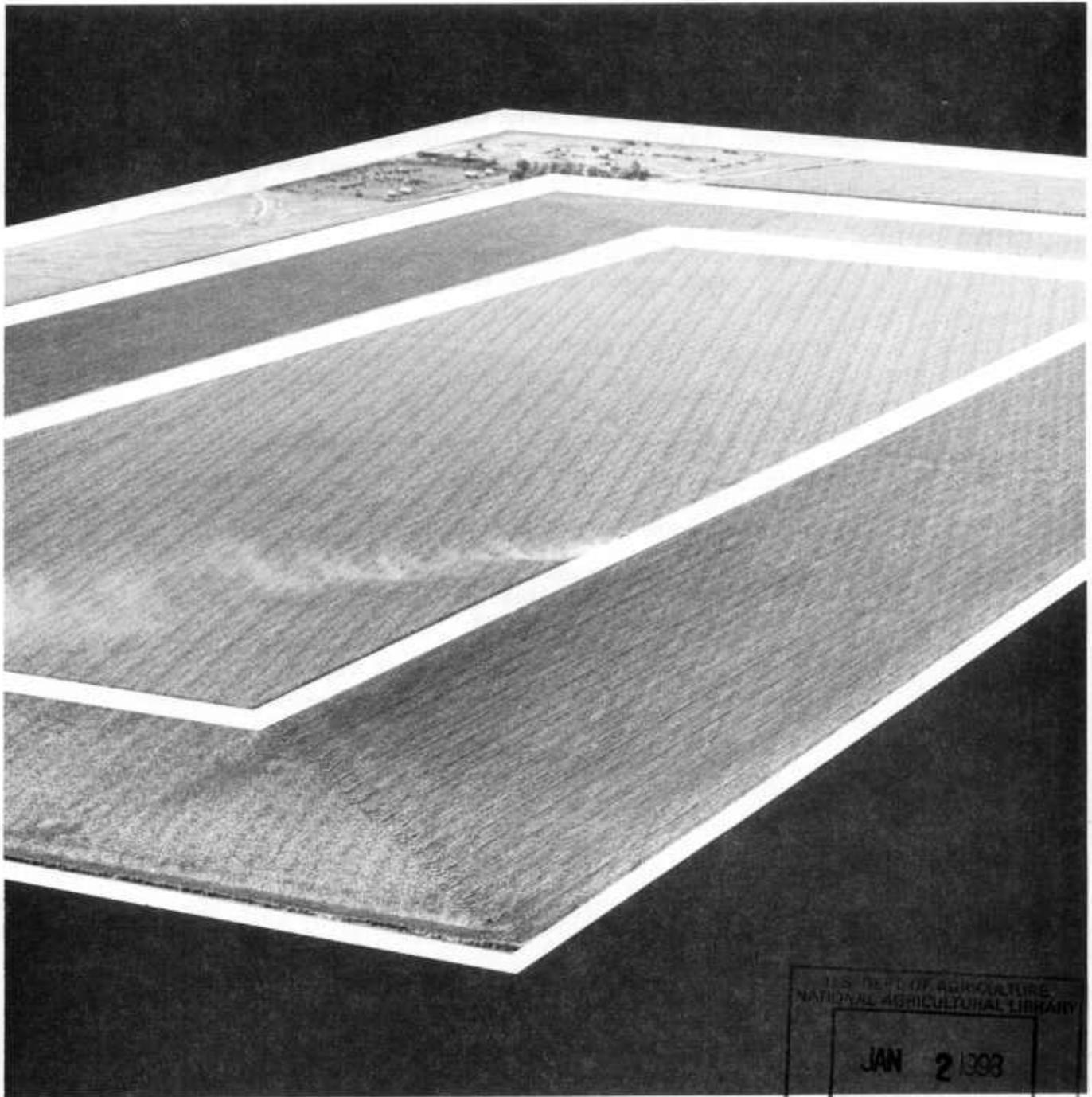
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Major Uses of Land in the United States: 1978

H. Thomas Frey



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Abstract

Major primary uses of the U.S. land area of 2,264 million acres in 1978 were: cropland, 471 million acres; grassland pasture and range, 587 million acres; forest land, 703 million acres; transportation, recreation, and other special uses, 158 million acres; and miscellaneous land, 345 million acres. From 1974 to 1978, cropland area increased 1 percent and special uses increased 7 percent, while pasture-range and forest land each declined 2 percent.

Key words: Land use, land use trends, cropland, pasture, rangeland, forest land, agricultural land, landownership.

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Summary

Total U.S. cropland rose slightly from 1974 to 1978, from 465 to 471 million acres. This increase reversed a downward trend in cropland acreage persisting since World War II. When cropland used only for pasture is excluded, cropland increased from 382 to 395 million acres.

About 55 percent of the total U.S. land area of 2,264 million acres is used to produce crops and livestock (including the cropland, grassland pasture and range, and part of the forest land categories shown in the chart below); nearly 24 percent is ungrazed forest land. The rest is distributed among transportation uses (1 percent); recreation, wildlife, and other extensive-type special uses (5 percent); and unclassified areas (13 percent).

This Economic Research Service report presents the agency's inventory of major uses of land and is based partly on information available from the Census of Agriculture.

Twenty-one percent of the land area is classed as cropland, but the proportion varies from less than 8 percent in the Mountain Region to more than 50 percent in the Corn Belt and Northern Plains.

Cropland used for crops totaled 369 million acres in 1978, or 78 percent of the cropland base. The remainder of the cropland acreage was used only for pasture (76 million acres) or was idle (26 million

acres). The 1980 area of cropland used for crops increased further to 387 million acres.

Cropland pasture and permanent grassland pasture totaled 663 million acres in 1978, a decline of 18 million acres since 1974. Part of the decrease was due to reclassification.

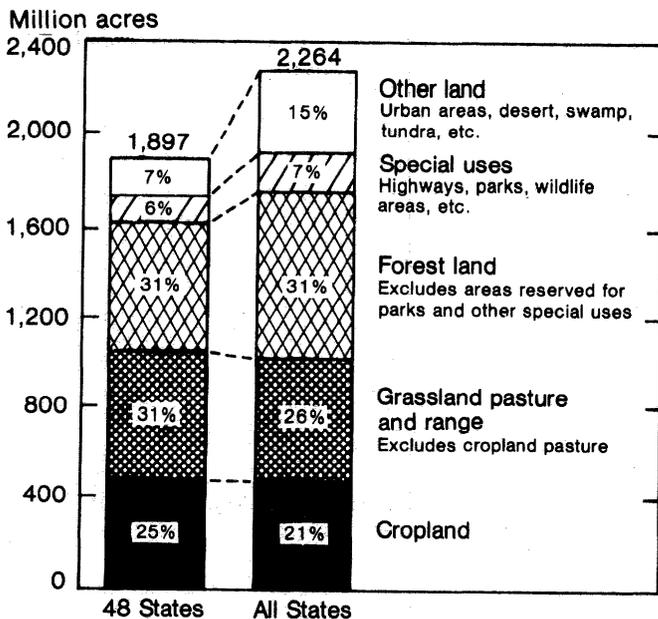
Forest land, excluding areas duplicated in parks and other special uses of land, totaled 703 million acres in 1977, compared with 723 million acres in 1970.

Transportation uses accounted for 27 million acres or about 1 percent of the land area in 1978. About 100,000 acres shifted to rural highway and road rights-of-way and airports annually during the seventies while the area in railroad rights-of-way decreased slightly. Acreage converted to transportation uses included pasture, forest, and miscellaneous land as well as cropland.

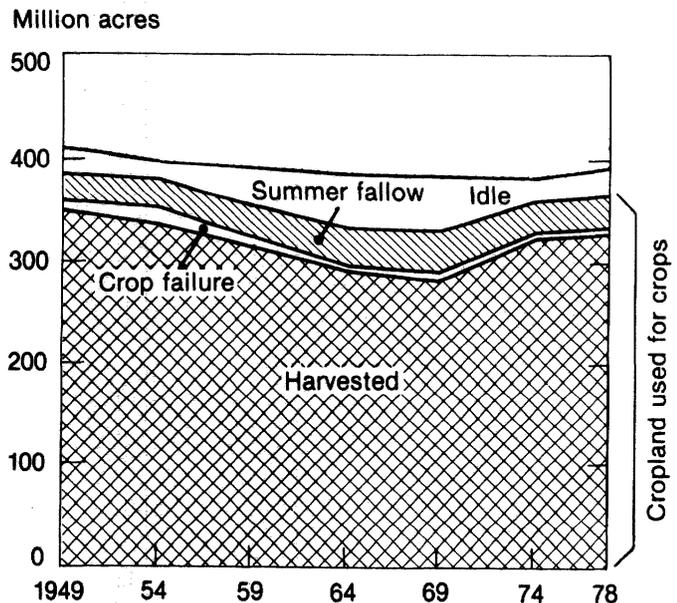
Federal and State areas used primarily for recreation and wildlife purposes totaled 98 million acres in 1978. Increases in these uses averaged nearly 2 million acres annually between 1969 and 1978.

Sixty percent of the U.S. land area was in private ownership in 1978 and 40 percent was owned by Federal, State, and local governments. Virtually all the cropland was in private ownership, but large acreages of grassland, forest land, and wasteland, plus much of the special uses acreage, were publicly owned.

Major Uses of Land, United States, 1978



Major Uses of Cropland



Major Uses of Land in the United States: 1978

H. Thomas Frey
Geographer

Introduction

The Economic Research Service routinely inventories major uses of U.S. land. For several decades, inventories have been conducted at intervals coinciding with the periodic censuses of agriculture. In these inventories, data from the Census, public land management and conservation agencies, and other sources are assembled, evaluated, analyzed, and synthesized to form State estimates of several broad classes and subclasses of agricultural and nonagricultural uses of land. This publication presents summary findings from the latest inventory in the series, including a brief analysis of changes and trends in land use.

Present Land Use

The U.S. land area totals about 2,264 million acres which can be grouped into five broad use categories: cropland, 471 million acres; grassland pasture and range, 587 million acres; forest land, 703 million acres; rural transportation, recreation, and other service-type uses, 158 million acres; and unclassified land, 345 million acres (table 1).¹

Twenty-one percent of the Nation's land area is cropland, 26 percent is permanent grassland pasture and range, 31 percent is forest, and the remainder comprises various special uses and wasteland. These proportions are different when Alaska is excluded; in the other 49 States, cropland and pasture account for higher proportions of the land area while unclassified land has a smaller share (app. table 1). Agricultural uses occurred on 1,238 million acres or 55 percent of the land area in 1978 (table 1). Agricultural and forestry uses together totaled 1,769 million acres or 78 percent of the land area.

Although 55 percent of the land area in 1978 was used for agricultural purposes, only 45 percent of the land area was in farms (9).² Virtually all cropland and most productive pasture areas were in

farms but much rangeland, both forested and non-forested, was not in farms. The majority of the grazing land not in farms was federally owned, mainly in grazing districts and national forest system range allotments.

The 471 million acres classed as cropland in 1978 represent land in crop rotation. A smaller acreage was used for crops and a larger acreage could be used for crops. The total of 369 million acres actually used for crops was relatively high but not a record. It would have been somewhat larger except for Federal production control programs in effect in 1978.

In addition to the acreage used for crops, 76 million acres of cropland were used only for pasture and 26 million acres were idle. The acreage used for pasture reflects both rotation and pasture needs. This acreage generally rotates back into crop use at varying intervals and is approximately replaced by

This report is the latest in a series on the major uses of U.S. land, published by the Economic Research Service and its predecessor agencies. Presenting estimates of the area in various land uses based on a synthesis of data from numerous sources, it is designed to account for the entire land area of the country. Most of the data apply to 1978, but in some instances they depart from that date. More recent data are available for cropland. Changes and trends in major land uses are also identified and measured.

The principal sources of data used were: reports and records of the Bureau of the Census, U.S. Department of Commerce; Economic Research Service, Forest Service, and Statistical Reporting Service of the U.S. Department of Agriculture; and the Bureau of Land Management, U.S. Department of the Interior. The Bureau of the Census provided basic data on the use of land in farms (45 percent of total land area). These data, which became available in June 1981, and their subsequent analysis primarily governed the date of this publication. 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.

Estimates of land use in 1978 were developed with the objective of maintaining comparability with earlier estimates in the series. Even so, comparability was sometimes adversely affected by changes in the characteristics of data available over time.

¹See appendix for definitions and explanation of the data.

²Italicized numerals in parentheses refer to items in Reference section.

Table 1—Uses of land, 1978

Land Use	Acreage	Percentage of total
	Millions of acres	Percent
Agricultural	1,238	54.7
Cropland used for crops ¹	369	16.3
Idle cropland	26	1.1
Cropland used only for pasture	76	3.4
Total cropland	471	20.8
Grassland pasture and range	587	25.9
Forest land grazed	172	7.6
Farmsteads, farm roads, and lanes	8	.4
Nonagricultural	1,026	45.3
Forest land not grazed ²	531	23.5
Transportation uses ³	27	1.2
Recreation and wildlife areas ⁴	98	4.3
National defense areas ⁵	25	1.1
Other land ⁶	345	15.2
Total U.S. land area	2,264	100.0

¹ Cropland harvested, crop failure, and cultivated summer fallow.

² Excludes reserved and other forest land duplicated in parks and other special uses of land. It was not feasible to eliminate all overlap in acreage that exists because of multiple use.

³ Rural highway, road, and railroad rights-of-way and rural airports.

⁴ National and State parks and related recreational areas, national and State wildlife refuges, and national wilderness and primitive areas.

⁵ Federal land administered by the Department of Defense for military purposes and land administered by the Department of Energy.

⁶ Includes urban areas, miscellaneous other uses not inventoried, and areas of little surface use such as marshes, open swamps, bare rock areas, desert, and tundra.

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

an equivalent acreage. Part of the cropland pasture acreage is marginal for crop use, however, and may remain in pasture indefinitely.

Idle acres include land not planted for harvest for a variety of physical and economic reasons including Federal production control programs.

Grassland and other nonfederal areas used primarily for livestock grazing totaled 587 million acres. In addition, grazing occurred as a secondary

or multiple use on 172 million acres of forest land and, as noted above, as an alternate use on 76 million acres of cropland. The three major types of pasture and range totaled 835 million acres, or 37 percent of the U.S. land area.

Nonagricultural uses of land totaled 1,026 million acres, or 45 percent of the U.S. land area. Forest land, exclusive of the acreage grazed or legally reserved for parks and other special uses, totaled 507 million acres. However, a third of the Nation's land area—736 million acres—is forested. About two-thirds of this larger acreage is classified by the Forest Service as commercial forest. The remainder is classed as noncommercial because of low productivity or, in the case of some public lands, legal reservation for recreation and other nontimber uses (7).

Nonagricultural special-use areas for which data are available occupied 150 million acres or 7 percent of the Nation's land area in 1978. Transportation uses accounted for 27 million of these acres. Federal and State parks, wildlife refuges, and related areas covered 98 million acres. Defense and other public installations and facilities accounted for 25 million acres.

Except for urban areas and minor acreages in other special uses not inventoried, the remaining 345 million acres of the Nation's land consist mainly of tundra, deserts, bare rock areas, swamps, marshes, and other unclassified areas. Alaska accounted for a high proportion of this land.

Trends in Major Land Uses

Most suitable native grasslands in the United States had been converted to cropland by 1920. Broad categories of land use have changed only gradually since then (table 2). The period 1920-50 was characterized by remarkable stability in cropland and forest land while pasture-range acreages decreased and special use acreages increased.

Changes during the fifties and sixties generally followed the trends established during 1920-50 except that cropland, exclusive of cropland used only for pasture, declined moderately as agricultural yields and surplus production rose. Grassland pasture acreage continued to decline but at a decreased rate due to partly offsetting shifts of cropland to pasture. Special use acreages increased at an accelerated rate during the fifties and sixties

due to rapid expansion of recreation areas, wildlife areas, and interstate highway construction. Urban areas, grouped in the unclassified category in table 2, also expanded at an accelerated rate relative to the 1920-50 period.

The significant changes in land use during 1969-78 are closely related to a strong increase in demand for farm products that started in 1972. Cropland, excluding cropland used only for pasture, increased from 384 million acres to 395 million acres. This change was not particularly large in absolute terms, but it reversed a downward trend dating to World War II. The increase in such cropland occurred mainly at the expense of cropland pasture, but small additions came from outside the cropland base.

Cropland used for crops increased even more sharply, from 333 million acres in 1969 to 387 million acres in 1980. The increase came with the return of diverted acreage to production, plus some shifts of cropland pasture and permanent pasture to crop use.

The combined acreage of cropland pasture and permanent grassland pasture continued to trend downward during 1969-78 but at an increased rate due to some conversion of pasture to cropland. However, the rate of decline was less than the estimates for 1969 and 1978 indicate because of inconsistencies in classification. Acreages of both cropland pasture and permanent pasture declined in most States. Part of the recent decrease involved high-quality pasture in humid regions in contrast to pasture-range decreases identified in earlier inventories that were limited largely to arid rangeland.

Forest land, exclusive of reserved and other areas in parks and similar uses, decreased from 723 to 703 million acres during 1969-78. These totals are not strictly comparable but represent a definite decrease in forest land after a period of little net change.

The increase to 158 million acres used for transportation, recreation, and other special uses did not take much land of cropland quality, although some arid rangeland was involved (table 2). Less than 2

Table 2—Trends in the major uses of land

Land use	1920	1930	1940	1950	1959	1969	1978
	<i>Million acres</i>						
Cropland ¹	402	413	400	409	392	384	395
Pasture and range ²	731	721	719	701	699	692	663
Forest land ³	721	722	727	721	728	723	703
Other land ⁴	416	414	426	442	452	465	503
Special uses	—	—	—	—	123	141	158
Unclassified land	—	—	—	—	329	324	345
Total U.S. land area ⁵	2,270	2,270	2,272	2,273	2,271	2,264	2,264

— = Not available.

¹ Excludes cropland uses only for pasture.

² Grassland and other nonforested grazing land plus cropland used only for pasture.

³ Exclusive of reserved and other areas duplicated in parks and other special uses.

⁴ Includes special uses specified in appendix table 4, various special uses not mentioned, and land having little value for surface use (rock, desert, tundra).

⁵ Changes in total land area are due to changes in methods and materials used in occasional remeasurements and to increases in the area of artificial reservoirs.

Source: Estimates for 1920-1959 are based primarily on (12) and assume essentially no change in Alaska and Hawaii prior to 1950. The estimates are only approximately comparable.

million acres of the 1959-78 increase shifted to transportation uses (rural highways, roads, railroads, and airports). Much of the rest comprised wildlands in the West and Alaska that were officially reclassified to parks, wilderness, and wildlife areas with little change in actual use.

The above totals exclude the area in urban areas, the most important special use of land in terms of impact on cropland supplies. Data on the area in urban places forthcoming from the 1980 Census of Population will be analyzed in a subsequent report. Earlier data in the Census of Population series indicate that fewer than 1 million acres of all kinds of land were absorbed by urban areas (urbanized areas and places of 2,500 or more inhabitants outside urbanized areas) annually during 1959-70.

Basic Land Use Patterns

The proportion of land in crops, pasture, forestry, and other uses varies greatly across the country (table 3). Cropland accounts for 21 percent of the

land nationally but ranges from 8 percent in the Mountain States to 62 percent in the Corn Belt. Proportions of cropland are also relatively high in the Lake States, parts of the Northern and Southern Plains, the lower Mississippi Valley, and several smaller areas. Cropland occupies less than 20 percent of the Northeast and Southeast where forest land predominates and about 10 percent in the western regions where aridity is common. Alaska, despite its large area, has fewer than 50,000 acres of cropland.

All regions have important acreages of grassland and other nonforested pasture and range, but the acreages are especially large in areas of the West too arid for crops or forest growth. Only 41 million acres, or 7 percent of all grassland pasture and range inventoried in 1978, were in the six farm production regions east of the Great Plains. Virtually all the remainder was in the Northern and Southern Plains (31 percent) and the Mountain and Pacific regions (61 percent). Alaska and Hawaii together had less than 1 percent of the U.S. grassland pasture and rangeland.

Table 3—Major uses of land, by region, 1978

Region	Cropland ¹	Pasture and range	Forest land	Special use area	Other land	Total land area
<i>Million acres</i>						
Northeast	17.5	3.0	68.1	8.7	14.8	112.1
Lake States	45.1	4.7	49.8	8.3	14.1	122.0
Corn Belt	101.8	12.0	27.8	7.6	15.8	165.0
Northern Plains	102.9	73.2	4.4	6.7	7.0	194.2
Appalachian	31.2	5.7	71.9	6.9	8.2	123.9
Southeast	21.2	9.3	75.1	8.6	9.4	123.6
Delta States	26.0	5.8	49.4	3.4	7.7	92.3
Southern Plains	55.8	111.5	31.7	5.9	6.9	211.8
Mountain	43.6	306.5	119.0	45.8	33.0	547.9
Pacific	25.4	52.6	85.9	21.1	19.2	204.2
48 States	470.5	584.3	583.1	123.0	136.1	1,897.0
Alaska	²	1.3	117.9	34.4	208.9	362.5
Hawaii	.3	1.1	1.6	.5	.6	4.1
United States	470.8	586.7	702.6	157.9	345.6	2,263.6

¹ Includes cropland used only for pasture.

² Fewer than 50,000 acres.

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

Forest land in 1978 covered 41 to 61 percent of the land area of the Northeast, Lake States, Appalachian, Southeast, Delta, and Pacific regions. Total forested acreage in Alaska is large, but relatively small compared with the total area of the State.

Land in special uses and unclassified areas accounted for 14 percent of the land in the 48 contiguous States in 1978 and, because of tundra and similiar areas in Alaska, 22 percent of the land in the United States. Aside from Alaska, regional proportions in special uses and unclassified land are well above average in the Northeast, Lake States, Pacific Region, and Hawaii; near the average in the Corn Belt, Southeast, Delta States, and Mountain Region; and below average in the Northern Plains and Southern Plains.

Cropland

Land classed as cropland totaled 471 million acres in 1978. This acreage includes five components—

cropland harvested, crop failure, cultivated summer fallow, cropland used only for pasture, and idle cropland. The sum of three of these components—cropland harvested, crop failure, and cultivated summer fallow—is called cropland used for crops or the land input to crop production. The regional distribution of land in the several components is shown in table 4. The apparent disparity of the cropland acreage cited here and documented in table 2 is due to the inclusion here of the cropland used only for pasture. That category was not counted in the cropland category of table 2.

Major Uses of Cropland

The harvested acreage includes intertilled and closely sown crops, tree fruits, small fruits, planted tree nuts, and wild hay. Acreages in those crops totaled 330 million acres or 70 percent of all cropland in 1978. Harvested acreages were particularly large in the Corn Belt and Northern Plains and relatively large in the Lake States, Southern Plains, and Mountain Region. Census data indicate that more

Table 4—Cropland, by major components and regions, 1978

Region	Harvested	Failed	Fallowed ¹	Pastured ²	Idled	Total
<i>Million acres</i>						
Northeast	13.1	0.1	—	3.1	1.2	17.5
Lake States	37.7	.3	—	3.9	3.2	45.1
Corn Belt	83.0	.4	—	14.0	4.4	101.8
Northern Plains	71.4	.8	16.2	9.4	5.1	102.9
Appalachian	18.1	.1	—	10.7	2.3	31.2
Southeast	14.1	.4	—	5.3	1.4	21.2
Delta States	19.0	.3	—	5.6	1.1	26.0
Southern Plains	30.5	3.0	2.3	16.3	3.7	55.8
Mountain	25.9	.9	9.8	4.8	2.2	43.6
Pacific	17.2	.2	3.6	3.1	1.3	25.4
48 States	330.0	6.5	31.9	76.2	25.9	470.5
Alaska	—	—	—	—	—	—
Hawaii	.2	—	—	—	.1	.3
United States	330.2	6.5	31.9	76.2	26.1	470.8

— = Fewer than 50,000 acres.

¹ Cultivated summer fallow.

² Cropland used only for pasture.

Source: Estimates are based on data from (4 and 9).

than 500 counties or about 17 percent of all counties in the country had record acreages of harvested cropland during the seventies. As a proportion of total cropland, cropland harvested acreages were above the national average of 70 percent in the Northeast, Lake States, Corn Belt, and Delta States; about average in the Northern Plains and Pacific Region; and generally below the average in the South, Southern Plains, and Mountain Region. The proportion of cropland actually harvested ranged from 55 percent in the Southern Plains to 83 percent in the Lake States.

Crop failure occurred on about 2 percent of the acreage planted for harvest in 1978, a rate typical of recent years. More than 70 percent of the failure occurred in the Northern Plains and Mountain Region. These regions usually have the majority of crop failure but the distribution within these regions varies annually. In 1978, nearly half of the national total and two-thirds of the Great Plains total occurred in the Southern Plains.

Crop failure mainly involves the acreage on which crops failed because of weather, insects, and diseases, but may include land not harvested due to economic and other reasons. The quantity of crop failure acreage is affected by the total acreage and location of particular crops. For example, the potential for failure is high when planted acreages of wheat in the Great Plains are high.

Cultivated summer fallow refers to cropland in sub-humid regions that is cultivated for a season or more before small grains are planted to control weeds and accumulate moisture. Cultivated summer fallow totaled 32 million acres in 1978. Fifty percent of the fallow acreage was in the Northern Plains, 30 percent was in the Mountain Region, and the remaining 20 percent was distributed in roughly equal proportions between the Southern Plains and the Pacific Region. Summer fallow is a necessary practice for small grain production in extensive areas of the semiarid West, but an optional practice in transitional precipitation zones of the Plains States. Within a small range, the acreage of summer fallow varies inversely with the acreage of small grains planted for harvest. Since some wheat acreage was diverted from production in 1978, the 32 million acres fallowed were probably slightly above the minimum required in the production process.

Cropland used only for pasture accounted for 16 percent of all cropland in 1978 but was double this rate in the Appalachian Region and well above

average throughout the South and Southwest. At the other extreme, only 9 percent of the cropland in the Lake States and Northern Plains was pastured. The largest acreages were in such agriculturally diverse regions as the Corn Belt and Southern Plains, but for different reasons. In the Corn Belt and adjacent areas, cropland pasture acreages reflect the high proportion of land classed as cropland; on many farms, the only land available is of cropland quality. In contrast, the large acreages of cropland pasture in the Southern Plains and elsewhere in the South are associated with a decrease in planted crops in recent decades.

Idle cropland, including cropland in soil improvement crops, totaled 26 million acres in 1978, or 6 percent of cropland nationally. The regional range was remarkably narrow, from 4 to 7 percent. Some cropland is idle each year due to adverse weather and soil conditions at planting time, lack of economic incentives, and other reasons. The 1978 total also included several million acres idled under Federal farm programs. Historic data from the census of agriculture suggest that idle cropland probably will never drop below about 15 million acres.

Trends in Major Uses of Cropland

Changes in classification have produced overstated cropland used only for pasture acreage and understated permanent pasture acreages beginning with the 1969 Census of Agriculture. This census was taken by mail, unlike earlier enumerator censuses. Changes in interpretation and definition over the years, along with changes in procedure, have made it difficult to compare cropland area among censuses. Thus, when cropland used only for pasture is excluded to improve comparability, total cropland trended downward from 409 million acres in 1949 to 382 million in 1974; it then increased to 395 million in 1978 (table 5).³

Total acreage classified as cropland has not changed greatly in recent decades, but important changes have occurred in individual cropland components. Of particular interest is cropland used for crops (the sum of cropland harvested, crop failure, and cultivated summer fallow) which increased from 334 million acres in 1972 to 377 million acres in 1977. After some acreage diversion by Federal

³ Total cropland, including cropland pasture, decreased from 478 million acres in 1949 to 444 million in 1964; increased sharply to 472 million in 1969; decreased again to 465 million in 1974; and, finally, increased to 471 million in 1978.

farm programs in 1978 and 1979, this cropland component rose to 387 million in 1980, equaling the 1949 record (table 5).

Much of the increase in cropland used for crops represented a shift from idle cropland to cropland harvested. Idle cropland, including land diverted from production under Federal farm programs, was at record high levels during the sixties and early seventies, but is now near minimum levels. The increase in cropland used for crops also reflects conversion or shifts of cropland pasture, permanent pasture, and other land from outside the cropland base.

Cropland harvested, the dominant component of the cropland base, declined 63 million acres from 1949-72, but regained 57 million acres from 1972-80. About 60 percent of the increase occurred in 1973 and 1974 when Federal production controls were removed. The remaining 40 percent of the increase occurred more gradually, but increases were progressive except in 1978 when the reintroduction of acreage controls caused a 1-year downturn.

Acreages of cultivated summer fallow have ranged between 26 and 41 million acres since 1949. This component tends to increase when acreage diversion programs are in effect and decrease when planted acreages are high, reflecting the optional nature of the practice in some areas.

Crop failure, the smallest and least controllable component of the cropland acreage, ranged between 5 and 13 million acres during the comparison period. This component represented from 2 to 4 percent of the planted acreage.

Regional Trends in Cropland Used for Crops

Cropland used for crops peaked at 387 million acres in 1949, declined to 334 million acres or near the record low in 1972, and then returned to 387 million acres in 1980 (table 6). The 1972-80 increase in acreage used for crops involved all regions. But only the Northern Plains recovered exactly to its 1949 level. The Lake States, Corn Belt, Delta States, and the Mountain and Pacific regions had 19 million more acres used for crops in 1980 than in 1949,

Table 5—Major uses of cropland¹

Year	Used for crops			Total	Idled	Total
	Harvested	Failed	Summer fallowed			
	<i>Million acres</i>					
1949	352	9	26	387	22	409
1954	339	13	28	380	19	399
1959	318	10	31	359	33	392
1964	292	6	37	335	52	387
1969	286	6	41	333	51	384
1972	289	7	38	334	—	—
1973	316	5	31	352	—	—
1974	322	8	31	361	21	382
1975	330	6	30	366	—	—
1976	331	9	30	370	—	—
1977	338	9	30	377	—	—
1978	330	7	32	369	26	395
1979	343	7	30	380	—	—
1980	346	12	29	387	—	—

— = Not available.

¹ Excludes cropland used only for pasture.

Source: Estimates of cropland used for crops for the 1949-77 period are from (5) and those for 1978-80 are based on data from (4 and 9). Estimates of idle cropland are based largely on data from the periodic censuses of agriculture.

while the Northeast, Appalachian, Southeast, and Southern Plains had 19 million fewer acres used for crops in 1980 than in 1949.

The Delta States and the Mountain Region did not participate in the 1949-72 decline in acreages used for crops. Land clearing for crop use offset cropland abandonment in the Delta States and irrigation was a stabilizing factor in the Mountain Region. Decreases exceeded the national rate of 14 percent in the Northeast, Lake States, Appalachian Region, Southeast, and Southern Plains, ranging as high as 40 percent in the Southeast.

Regional increases in cropland used for crops during 1972-80 ranged from 8 to 10 percent in the Northeast, Northern Plains, and Mountain and Pacific regions, compared to the 16-percent national average. Increases in all other regions were above the national rate—25 percent in the Lake States and 20 percent in the Corn Belt. Increases in the South and Southwest ranged from less than 20 percent in the Appalachian and Delta regions to 23 percent in the Southern Plains and 33 percent in the Southeast.

Much of the increase in cropland used for crops during 1972-80 represents a return to production of cropland previously idled by Federal farm programs. However, in all regions except the Northern Plains, Southern Plains, and Mountain States, increases in cropland used for crops after 1972 were larger than acreages diverted in 1972. These increases reflect shifts from cropland pasture and from outside the cropland base as well as from diverted acreage.

Principal Crops Harvested

The 21 crops listed in table 7 normally account for about 97 percent of the total acreage harvested and virtually all of the change in harvested acreage. These crops collectively increased from 283 million acres harvested in 1972 to 341 million acres in 1980. Ten of the principal crops increased a total of 68 million acres. Wheat, soybeans, and corn accounted for 62 million additional acres or 91 percent of the gross increase. Acreages of sunflower seed and rice also increased sharply, together accounting for 8 percent of the total. Eleven crops compiled a 10-million-acre decline from 1972 to

Table 6—Cropland used for crops, by region

Region	1949	1972	1980	Change		
				1949-72	1972-80	1949-80
<i>Million acres</i>						
Northeast	17	12	13	-5	1	-4
Lake States	38	32	40	-6	8	2
Corn Belt	78	73	88	-5	15	10
Northern Plains	94	87	94	-7	7	—
Appalachian	22	16	19	-6	3	-3
Southeast	20	12	16	-8	4	-4
Delta States	17	17	20	—	3	3
Southern Plains	45	30	37	-15	7	-8
Mountain	35	35	38	—	3	3
Pacific	21	20	22	-1	2	1
Alaska	1	1	1	—	—	—
Hawaii	1	1	1	—	—	—
United States	387	334	387	-53	53	—

— = No change.

¹ Rounds to fewer than 0.5 million acres.

Source: Estimates for 1949 and 1972 are from (5). Estimates for 1980 are based on data from (4 and 9).

Table 7—Principal crops harvested in 48 contiguous States

Crops ¹	1973	1980	Change
	Million acres		
Increasing crops	177.3	245.4	68.1
Corn	66.4	82.9	16.5
Wheat	47.3	70.9	23.6
Soybeans	45.7	67.9	22.2
Sunflowers	—	3.8	3.8
Rice	1.8	3.3	1.5
Dry edible beans	1.4	1.8	.4
Tobacco	.8	.9	.1
Other crops ²	13.9	13.9	—
Decreasing crops	105.7	95.5	-10.2
Hay	59.7	59.4	-.3
Sorghum	16.5	14.9	-1.6
Oats	13.4	8.6	-4.8
Barley	9.6	7.2	-2.4
Peanuts	1.5	1.4	-.1
Potatoes	1.3	1.2	-.1
Sugarbeets	1.3	1.2	-.1
Flaxseed	1.1	.7	-.4
Rye	1.1	.7	-.4
Other crops ³	.2	.2	—
Total	283.0	340.9	57.9

— = Not reported or no change.

¹ Principal crops harvested as classified by the Statistical Reporting Service (4).

² Cotton, popcorn, and sugarcane.

³ Dry edible peas and sweet potatoes.

Sources: (4).

1980. These crops generally were supplanted by corn, wheat, and soybeans.

Pasture and Range

Livestock grazing occurred on about 835 million acres, or 37 percent of the U.S. land area in 1978 (table 8).⁴ About 587 million acres of grassland pasture and range were used primarily for grazing.

⁴ This total excludes land on which grazing occurred before or after crops were harvested. Examples are fall and winter pasturage of small grains and after-harvest pasturage of hayland. Also excluded are areas totaling about 60 million acres in Federal grazing districts and range allotments that have little value for grazing but which are intermingled and managed with the productive Federal range.

The remainder consisted of 76 million acres of cropland used only for pasture and 172 million acres of forested grazing land. Most land classed as permanent grassland and forested grazing land is grazed for some period each year, but the acreage varies depending on weather and available forage.

Cropland Pasture

Cropland used only for pasture, the smallest component of the grazing acreage, occupied 3 percent of the land area and 9 percent of the total pasture and range acreage in 1978. All cropland pasture is in farms and virtually all is in non-Federal ownership. Absolute acreages are largest in the Corn Belt and Northern Plains, where total cropland acreages are large, and in the Appalachian Region and Southern Plains, where significant amounts of cropland have been abandoned. Among regions, cropland pasture is the dominant pasture type in only the Northeast, Appalachian Region, and Corn Belt. In comparison with regions in the West, cropland pasture forms a high percentage of total pasture and range in all regions east of the Plains States. Substantial acreages of cropland are pastured in the Northern Plains, Southern Plains, and Mountain and Pacific

Table 8—Pasture and range, by type and region, 1978

Region	Cropland pasture	Grassland pasture and range	Forest land grazed	Total
	Million acres			
Northeast	3.1	3.0	2.1	8.2
Lake States	3.9	4.7	3.7	12.3
Corn Belt	14.0	12.0	7.7	33.7
Northern Plains	9.4	73.2	2.1	84.7
Appalachian	10.7	5.7	5.9	22.3
Southeast	5.3	9.3	11.1	25.7
Delta States	5.6	5.8	17.2	28.6
Southern Plains	16.3	111.5	20.8	148.6
Mountain	4.8	306.5	71.7	383.0
Pacific	3.1	52.6	28.9	84.6
48 States	76.2	584.3	171.2	831.7
Alaska	—	1.3	.1	1.4
Hawaii	—	1.1	.5	1.6
United States	76.2	586.7	171.8	834.7

— = Fewer than 50,000 acres.

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

regions, but the relative importance of this pastured cropland is diminished by large acreages of grazed permanent grassland and forest land.

About 45 million acres of cropland pasture are in the six humid regions east of the Great Plains and are distributed in roughly equal proportions with permanent grassland pasture. The combined total of 83 million acres in these types accounts for only 13 percent of all temporary and permanent grassland pasture and range. However, an average acre in the East is much more productive than an average acre in the West.

Grassland Pasture and Range

Grassland pasture and range comprised 26 percent of the U.S. land area and 70 percent of all pasture and range in 1978. The 587-million-acre total included 437 million acres enumerated as land in farms and 150 million acres not in farms. All but 15 million acres of this land in farms is nonfederal land and all but 15 million of the acres not in farms is federally owned.

Grazing of grassland pasture and range is the predominant use of land in the Mountain Region and Southern Plains and the predominant agricultural use in the Pacific Region, Alaska, and Hawaii. Grassland pasture dominates all pasture types in all regions except the Northeast, Corn Belt, and Appalachian Region. Grazing of this varied cover type accounts for more than half the area in the Mountain Region and Southern Plains; 38 percent in the Northern Plains, where a large proportion of the land area is used for crops; and 26 percent in the Pacific Region, where forestry predominates. These four regions have 544 million acres, or 93 percent of the permanent grassland pasture and range acreage. In other regions except Hawaii, the proportion of area in grassland pasture ranges from 8 percent in the Southeast to less than 1 percent in Alaska. A third of the land in Hawaii is grazed; but, due to the State's small size, grassland pasture there contributes little to the national acreage.

Forest Land Grazed

Grazing occurred on 172 million acres of forest land in 1978. This total includes woodland in farms (48 million acres) and forested grazing land not in farms (124 million acres). About half of the acreage not in farms is federally owned. Much of the re-

mainder consists of large private holdings in the South.⁵

The heavily forested Northeast and the sparsely forested Northern Plains each had 2 million acres of grazed forest land in 1978. The Mountain Region had 72 million acres. Acreages of forested grazing land are relatively large throughout the West, Southeast, and South, but are the dominant pasture only in the Southeast and Delta States. Forest land grazed ranged from 1 percent of the Northern Plains land area to 19 percent in the Delta States.

Regional Changes

The combined acreage of cropland pasture and grassland pasture and range decreased slightly from 1949 to 1969 and more decidedly during the seventies (table 9). Acreages in this category increased during 1949-69 in the Northern Plains, Appalachian Region, Southeast, Delta, and Southern Plains; remained stable in the Lake States and Corn Belt; and decreased in the Northeast, Mountain Region, and Pacific States. During 1969-78, pasture acreages declined at least slightly in eight regions and remained unchanged in two regions—the Southern Plains and Pacific States. Pasture and range acreages in 1978 were higher compared with 1949 in the Southeast and Southern Plains, essentially unchanged in the Northern Plains, and lower in all other regions.

During 1949-69, a substantial increase in pasture and range in the Southern Plains and smaller increases in most eastern regions were more than offset by decreases in the Mountain and Pacific regions. The increases in regions east of the Rocky Mountains came as land was diverted from crop production and, especially in the Southeast and Southern Plains, by clearing and reclassification of brush or forest land. Not all of the increase was a net increase in grazing land since part of the acreage was previously classed as forested grazing land. The larger decreases in the Western States mainly involved Federal range that was withdrawn for parks, wilderness, and similar areas or reclassified as unsuitable for grazing.

⁵ Available data permit only rough approximations of privately owned forest land grazed but not enumerated as land in farms. However, the extent of this practice is indicated by a special Forest Service study of 11 Louisiana parishes (3). The acreage of forest land grazed identified in these parishes were more than seven times larger than the acreage reported by the closest (1974) Census of Agriculture.

Table 9—Trends in nonforested pasture and range acreage¹

Region	1949	1954	1959	1964	1969	1974	1978
<i>Million acres</i>							
Northeast	11	11	11	10	7	6	6
Lake States	12	12	13	13	12	10	8
Corn Belt	31	31	35	32	31	29	26
Northern Plains	82	82	84	85	84	85	83
Appalachian	20	20	22	20	21	19	17
Southeast	11	15	18	16	16	17	15
Delta	12	14	15	14	15	14	11
Southern Plains	103	114	120	127	128	128	128
Mountain	352	335	318	319	319	313	311
Pacific	66	64	59	58	56	57	56
Total	700	698	695	694	689	678	661

¹ Includes cropland pasture and grassland pasture and range.

Note: Data are for the 48 contiguous States only.

The general decline in pasture acreage since 1969 involved some reclassification. But, many pasture acres were affected by the sharp increase in food demand in the early seventies. The large increase in harvested acreage since 1972 made inroads on both cropland pasture and permanent grassland pasture.

Forest Land

The U.S. Forest Service classified 483 million acres as commercial forest land in 1977 (suitable and available for growing crops of industrial wood). This represents 66 percent of the 737 million acres classified by the Forest Service as forest land. The remaining third was classified as unproductive or, in the case of some publicly owned lands, legally reserved for recreation and other nontimber uses (6). The 737-million-acre total contrasts with the 703 million acres cited earlier in this report. The smaller total excludes forest acres in parks, wildlife areas, and related uses.

Forest acreage is about equally divided among the six farm production regions east of the Great Plains and the four regions from the Plains States westward plus Alaska and Hawaii (table 10). However, the proportions classified as commercial and noncommercial in the two regional groupings differ greatly. In the East, 94 percent of the forest land is classified as commercial; in the West and Alaska

Table 10—Commercial and noncommercial forest land, 1977

Region	Commercial	Noncommercial	Total
<i>Million acres</i>			
Northeast	66	6	72
Lake States	47	4	51
Corn Belt	27	1	28
Northern Plains	4	—	4
Appalachian	72	2	74
Southeast	74	2	76
Delta States	49	—	49
Southern Plains	17	15	32
Mountain	57	80	137
Pacific	58	35	93
48 States	471	145	616
Alaska	11	108	119
Hawaii	1	1	2
United States	483	254	737

— = Fewer than 0.5 million acres.

Source: (6).

collectively, the proportion is 38 percent. Half the western forest land is of commercial quality when Alaska is excluded.

Special and Miscellaneous Uses

Special uses of land, including rural highway, road, and railroad rights-of-way; parks and related recreational areas; and other uses specified in table 11 occupied 158 million acres in 1978. Rural transportation areas accounted for 27 million acres or about 17 percent of the total. National and State parks and related areas totaled 57 million acres. An additional 41 million acres were administered by Federal and State wildlife agencies. About 25 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 both intensive and extensive uses of land. Except for land used for farmsteads and farm roads, these uses are nonagricultural.

Acreage used for transportation, recreation, wildlife, and other special uses increased from 123 million acres in 1959 to 147 million acres in 1974, and to 158 million in 1978. This is a net increase resulting from an increase of fewer than 2 million acres in transportation uses, a collective increase of nearly 36 million acres in recreation and wildlife areas, and a decrease of about 3 million acres in national defense, farmsteads, and related areas. Transportation areas increased somewhat more than indicated but part of this category was reclassified from rural to urban as urban areas expanded.

The relative proportions of cropland, pasture, range, forest, and other land absorbed by individual special uses are not well established. However, neither the 11-million-acre increase from 1974-78 nor the 35-million-acre increase from 1959-78 took much land of cropland quality although some arid rangeland was involved. Fewer than 2 million acres of the 1959-78 increase shifted to transportation uses (rural highways, roads, railroads, and airports). Examination of State and regional acreages in appendix table 4 indicates that relatively little of the land used primarily for recreation and wildlife purposes was previously used for intensive agriculture. Of the 98 million acres in recreation and wildlife uses in 1978, 43 percent was in the Mountain and Pacific regions and 32 percent was in Alaska. The majority of this land was withdrawn from the public domain and includes such rugged areas as Mt. McKinley, Grand Canyon, Yellowstone,

and Yosemite parks; Death Valley national monument; and the Cabeza Prieta wildlife refuge. An additional 10 percent is concentrated in forested or wetland areas of a few Eastern States, including New York, Pennsylvania, Minnesota, Tennessee, and Florida.

The areas added to recreation and wildlife uses in the last two decades were generally unsuitable for crop use, according to comparisons of State and regional acres in appendix table 4 with those developed in a similar inventory of land uses in 1959 (12). Of the 38-million-acre increase, 33 percent was in the Mountain and Pacific regions and 45 percent was in Alaska.

The above totals exclude the area in urban areas, the most important special use of land in terms of impact on cropland supplies. Data on the area in urban places forthcoming from the 1980 Census of Population will be analyzed in a subsequent report. Earlier data in the Census of Population series indicate that fewer than 1 million acres of all kinds of land were absorbed annually by urban areas as defined by the Bureau of the Census (urbanized areas plus places of 2,500 or more inhabitants outside urbanized areas) during the 1950-70 period.

The remaining 345 million acres of the Nation's land area consist largely of marshes, open swamps, desert, tundra, and minor acreages in special uses that were not inventoried. Acreages of this unclassified

Table 11—Changes in special uses of land

Special use area	1959	1974	1978
	<i>Million acres</i>		
Highways and roads	20.2	21.2	21.5
Railroads	3.4	3.1	3.0
Airports	1.4	2.0	2.2
National parks	38.7	44.7	47.1
State parks	5.5	6.9	9.5
National wildlife areas	11.5	28.4	31.2
State wildlife areas	5.7	7.5	10.1
National defense areas	24.4	22.9	22.8
Federal industrial areas	1.9	2.1	2.1
Farmsteads and farm roads	10.1	8.1	8.4
Total special use areas	122.8	146.9	157.9

Source: Estimates for 1959 and 1974 are based mainly on (12 and 1), respectively. Definitions and procedures used in developing estimates for 1978 are outlined in appendix table 4.

fied land are relatively large in arid portions of the West and several Atlantic and Gulf coastal areas, but particularly large in Alaska which has 242 million acres or 70 percent of the total.

Major Uses of Land by Class of Ownership

About 33 percent of U.S. land is federally owned, 60 percent is privately owned, and the remainder is owned by State and local governments (table 12). These proportions normally change only gradually, but substantial acreages of Federal land have recently shifted to State ownership in Alaska and further shifts are expected there. The large Federal acreage was mainly acquired as part of the original public domain, but it also includes some 60 million acres acquired by purchase and other means (11). About half of the Federal acreage is distributed in the Mountain and Pacific regions and most of the remainder is in Alaska. Less than 10 percent is in other regions. Grazing is the primary use of about 150 million acres of Federal land classified as grassland and shrubland and a secondary use on some 55 to 60 million acres of forest. Other major uses of Federal land are forest land, various special uses, and unclassified areas such as desert, open swamps, and tundra.

Very little of the land in Federal ownership is physically suitable for crop use. This is particularly true of the large holdings in the West and Alaska, which mainly comprise the residual of the much larger original public domain. The last comprehensive survey of Federal land found only 3 million acres suitable for intensive agriculture and about 1 million acres actually used for this purpose in the 17 Western States (2). The proportion of Federal

land that is suitable for crops is somewhat higher in the East but the total acreage is small.

State and local governments have accumulated landholdings through various means including grants of land from the Federal Government, tax reversion, purchase, gift, and escheat. These publicly administered acres are distributed somewhat more evenly than Federal land but are still characterized by a high degree of geographic concentration. The larger acreages are located mainly, but not exclusively, in the Western States and Alaska. State and local governments hold land for forests, parks, wildlife refuges, highway and road rights-of-way, city streets, institutional sites, and other specific purposes. Most Western States and Alaska also hold relatively large acreages without specific use designations, including about 41 million acres in the West used primarily for grazing.

About 1,367 million acres, including 52 million acres of Indian land, are privately owned. About 60 percent of the Indian land is permanent grassland or other nonforested rangeland. In addition, there are 13 million acres of Indian forest land, most of which is also used for grazing. Less than 5 percent of the Indian land is used for cultivated crops. Indian land, like publicly owned land, is concentrated in the Western States.

Private land, exclusive of that in Indian ownership, totaled 1,315 million acres, or 58 percent of the U.S. land area in 1978. Included in this total are 99 percent of the Nation's cropland, more than 60 percent of the grassland pasture and range, about 54 percent of the forest land, and 18 percent of the area in special uses and unclassified land. Most land with relatively favorable physical attributes is privately owned.

Table 12—Ownership and use of land, by major categories, 1978

Ownership	Cropland	Grassland pasture and range	Forest land ¹	Special uses and misc. land	Total land area
Million acres					
Federal	1	150	285	306	742
State and other public	2	41	39	73	155
Indian ²	2	32	13	5	52
Private	466	364	400	85	1,315
Total	471	587	737	469	2,264

¹ Includes reserved forest land in parks and other special uses.

² Managed in trust by the Bureau of Indian Affairs.

Source: Federal, State, and local government and Indian land acreages are approximations based on public records and reports. Private land is the remainder of the land in each use category.

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Appendix

Definitions and Explanations of the Data

Estimates of major land uses presented in this report are the latest from a series of land use inventories based on available data conducted by the Economic Research Service and its predecessor agencies. This series extends back more than 50 years and, since 1945, has been generally comparable in categories and area coverage. These periodic inventories are useful because numerous public agencies develop land use data but no single agency accounts for the use of all land in the country. Specifically, the inventories provide a framework within which changes in the supply and demand for land for agricultural and other purposes can be measured and analyzed.

The estimates, with few exceptions, were synthesized or otherwise adapted, modified, or adjusted from available data rather than used exactly as developed by source agencies. This process is necessary because land use data, regardless of origin or utility for specific purposes, have limitations for comprehensive inventory purposes. The data are typically obtained in surveys that differ greatly in scope, methods, definitions, and other characteristics. The individual sources account for only one or a few uses and for only a limited part of the total land area. The available data contain conflicts and overlap that must be reconciled or removed.

Definitions and explanations of the various land use categories are:

Cropland: Total cropland includes five components: cropland harvested, crop failure, cultivated summer fallow, cropland used only for pasture, and idle cropland. The estimate of total cropland in 1978 includes total cropland as reported by the 1978 Census of Agriculture (9) plus an upward adjustment of about 2 percent to conform with data on principal crops harvested reported by the Statistical Reporting Service.

Cropland harvested includes intertilled and closely sown crops; tree fruits, small fruits, and planted tree nuts; and wild hay. A small part, about 2 percent, of this acreage was double cropped.

Crop failure consists mainly of the acreage on which crops failed because of weather, insects, and diseases but includes some land not harvested due to lack of labor, low market prices, or other factors.

The acreage planted to cover and soil improvement crops not intended for harvest is excluded. In recent years, crops have failed on about 2-3 percent of the acreage planted for harvest.

Cultivated summer fallow refers to cropland in sub-humid regions of the West that is cultivated for a season or more to control weeds and accumulate moisture before small grains are planted. This practice is optional in some areas, but a requirement for crop production in the dryer cropland areas of the West. 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.

Cropland used only for pasture generally is considered to be in the long-term crop rotation, being tilled, planted in field crops, and then reseeded to pasture at varying intervals. It also includes land that was pastured before crops reached maturity and some land used for pasture that could have been cropped without additional improvement.

Idle cropland includes land in cover and soil improvement crops and completely idle cropland. Some cropland is idle each year for various physical and economic reasons. Acreages diverted from crops to soil conserving uses under Federal farm programs are included in this component.

Three of the cropland acreage components—cropland harvested, crop failure, and cultivated summer fallow—are collectively termed cropland used for crops or the land input to crop production. Regional acreages in these components are developed annually in a separate but coordinated series. The annual estimates of cropland harvested are based on both census data and the series on principal crops harvested maintained by the Statistical Reporting Service. Annual estimates of crop failure are based on differences in planted and harvested acreages of principal crops from the SRS series. Annual estimates of cultivated summer fallow historically have been based on fragmentary data from a variety of sources. More recently, they have been based on data from the Census of Agriculture, unpublished SRS data, and, in 1977, from the National Resources Inventory conducted by the Soil Conservation Service (8).

Grassland pasture and range: Grassland pasture and range comprise all open land used primarily for pasture and grazing. It includes the shrub and brushland types of pasture and grazing land such

as sagebrush and scattered mesquite, and all tame and native grasses, legumes, and other forage used for pasture or grazing. Because of the diversity in vegetative composition, grassland pasture and range are 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 forested grazing land.

No single agency accounts for all land used for pasture and range. The estimates in this report are composites of data from the Census of Agriculture, Bureau of Land Management, Forest Service, and several other Federal agencies. The 587 million acres classed as grassland pasture and range in 1978 essentially include: (1) 437 million acres of land in farms, including about 422 million acres of nonfederal land and 15 million acres of Federal land and (2) 150 million acres not in farms, including 135 million acres of Federal and 15 million acres of nonfederal land. All of these acreages except the 437 million acres in farms are estimates or approximations.

Forest pasture and range: Forest pasture and range consist mainly of forest, brushgrown 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 estimates of forested grazing land not in farms. For many States, the estimates include significant areas grazed only lightly or sporadically.

The Census of Agriculture and the Forest Service were the principal sources of data. Historical data from these and other sources also were useful in developing the approximations.

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 and afforested areas (7). Acreages reported here were reported in (6) minus 33 million acres of legally reserved and other areas duplicated in parks, wildlife areas, military bases, and similar special uses of land. It was not feasible to eliminate all overlap with other uses that exists because of multiple use.

The Forest Service conducts a continuous, rather than periodic, survey of forest resources. At any point in time, the forest area data for individual States may vary in age by several years. This characteristic adversely affects estimates of other uses, especially pasture and range. However, these forest area data are very useful in explaining changes and trends in land use. Forest land is given less emphasis than cropland and pasture in this report because the Forest Service periodically analyzes the Nation's forest resources in considerable detail.

Special-use areas: Special uses in this report include areas in highway, road, and railroad rights-of-way; airports; Federal and State parks, wilderness areas, and wildlife refuges; and national defense and industrial areas. Estimates of the area in special uses were made because some of these uses affect the supply of agricultural land and all help account for changes in land use. The sources and procedures used in developing these estimates are outlined in footnotes to appendix table 4.

Unclassified land: Such land includes urban areas; miscellaneous special uses such as industrial and commercial sites in rural areas, powerline rights-of-way, cemeteries, golf courses, mining areas, and quarry sites; and marshes, swamps, sand dunes, bare rocks, deserts, tundra, and other unclassified land.

Appendix table 1—Major uses of land, by State and region, 1978

State and region	Cropland ¹	Grassland pasture and range ²	Forest land ³	Special uses ⁴	Other land	Total land area ⁶
1,000 acres						
Northeast	17,501	2,963	68,061	8,680	14,924	112,129
Maine	689	118	17,474	371	1,137	19,789
New Hampshire	198	32	4,867	208	472	5,777
Vermont	862	188	4,450	242	189	5,931
Massachusetts	310	43	2,847	425	1,384	5,009
Rhode Island	36	3	395	67	170	671
Connecticut	250	47	1,831	122	862	3,112
New York	6,181	1,394	14,737	3,810	4,490	30,612
New Jersey	750	52	1,894	433	1,684	4,813
Pennsylvania	5,816	901	16,632	2,347	3,082	28,778
Delaware	536	11	390	99	232	1,268
Maryland	1,873	174	2,544	556	1,183	6,330
District of Columbia					39	39
Lake States	45,147	4,715	49,833	8,328	13,942	121,965
Michigan	8,665	1,211	18,979	2,017	5,491	36,363
Wisconsin	12,239	1,914	14,840	2,132	3,732	34,857
Minnesota	24,243	1,590	16,014	4,179	4,719	50,745
Corn Belt	101,761	12,010	27,789	7,637	15,767	164,964
Ohio	12,558	1,545	6,065	1,318	4,738	26,224
Indiana	14,030	1,347	3,895	1,131	2,699	23,102
Illinois	25,493	1,551	3,757	1,805	3,073	35,679
Iowa	28,719	1,755	1,485	1,668	2,175	35,802
Missouri	20,961	5,812	12,587	1,715	3,082	44,157
Northern Plains	102,903	73,208	4,412	6,671	7,049	194,243
North Dakota	29,618	10,888	426	1,824	1,583	44,339
South Dakota	19,294	24,192	1,673	1,583	1,869	48,611
Nebraska	23,317	22,133	1,015	1,526	958	48,949
Kansas	30,674	15,995	1,298	1,738	2,639	52,344
Appalachian	31,259	5,764	71,876	6,901	8,121	123,921
Virginia	4,783	1,556	16,009	1,383	1,728	25,459
West Virginia	1,611	653	11,509	452	1,180	15,405
North Carolina	6,571	852	19,590	1,814	2,404	31,231
Kentucky	9,846	1,301	11,948	1,044	1,237	25,376
Tennessee	8,448	1,402	12,820	2,208	1,572	26,450
Southeast	21,150	9,285	75,078	8,633	9,435	123,581
South Carolina	3,604	550	12,167	1,135	1,888	19,344
Georgia	7,161	1,317	24,840	1,868	1,981	37,167
Florida	4,497	5,469	16,738	4,156	3,758	34,618
Alabama	5,888	1,949	21,333	1,474	1,808	32,452
Delta States	25,950	5,777	49,453	3,358	7,731	92,269
Mississippi	8,542	1,856	16,696	829	2,346	30,269
Arkansas	10,811	2,055	18,230	1,249	900	33,245
Louisiana	6,597	1,866	14,527	1,280	4,485	28,755

See footnotes at end of table.

Continued—

Appendix table 1—Major uses of land, by State and region, 1978—Continued

State and region	Cropland ¹	Grassland pasture and range ²	Forest land ³	Special uses ⁴	Other land	Total land area ⁶
1,000 acres						
Southern Plains	55,842	111,477	31,674	5,926	6,867	211,786
Oklahoma	15,078	17,549	8,471	1,395	1,527	44,020
Texas	40,764	93,928	23,203	4,531	5,340	167,766
Mountain	43,589	306,508	119,027	45,765	32,979	547,868
Montana	16,327	48,869	19,003	5,972	3,005	93,176
Idaho	6,632	21,004	17,890	4,265	3,122	52,913
Wyoming	2,916	45,537	5,640	5,589	2,528	62,210
Colorado	10,818	28,731	20,009	3,515	3,337	66,410
New Mexico	2,338	51,382	16,805	4,974	2,204	77,703
Arizona	1,659	41,506	17,475	9,188	2,759	72,587
Utah	2,034	23,503	14,933	4,777	7,294	52,541
Nevada	865	45,976	7,272	7,485	8,730	70,328
Pacific	25,378	52,595	85,882	21,106	19,272	204,233
Washington	8,410	6,586	20,349	5,250	2,010	42,605
Oregon	5,247	23,119	28,498	2,659	2,034	61,557
California	11,721	22,890	37,035	13,197	15,228	100,071
48 States	470,480	584,302	583,085	123,005	136,087	1,896,959
Alaska	29	1,276	117,932	34,359	208,920	362,516
Hawaii	333	1,143	1,610	535	491	4,112
United States	470,842	586,721	702,627	157,899	345,498	2,263,587

¹ Total acreage in the crop rotation.

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

³ Excludes reserved forest land and some unreserved areas totaling about 33 million acres duplicated in parks and other special uses of land.

⁴ Transportation, recreation, and other special uses of land specified in table 4.

⁵ Miscellaneous areas such as marshes, open swamps, bare rock areas, deserts, and urban and other special uses not inventoried.

⁶ Approximate land area as established by the Bureau of the Census in conjunction with the 1970 Census of Population (10). Includes all dryland and land temporarily or partially covered with water, such as marshland, swamps, and river flood plains; streams, sloughs, and estuaries, and canals less than one-eighth mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

Appendix table 2—Major use of cropland, by State and region, 1978

State and region	Crops ¹	Idle ²	Pasture ³	Total	State and region	Crops ¹	Idle ²	Pasture ³	Total
	1,000 acres					1,000 acres			
Northeast	13,155	1,229	3,117	17,501	Southeast	14,438	1,438	5,274	21,150
Maine	491	100	98	689	South Carolina	2,748	231	625	3,604
New Hampshire	138	14	46	198	Georgia	5,114	496	1,551	7,161
Vermont	583	25	254	862	Florida	2,807	390	1,300	4,497
Massachusetts	215	18	77	310	Alabama	3,769	321	1,798	5,888
Rhode Island	25	3	8	36	Delta States	19,238	1,129	5,583	25,950
Connecticut	180	15	55	250	Mississippi	6,144	438	1,960	8,542
New York	4,514	472	1,195	6,181	Arkansas	8,027	336	2,448	10,811
New Jersey	621	46	83	750	Louisiana	5,067	355	1,175	6,597
Pennsylvania	4,368	411	1,037	5,816	Southern Plains	35,801	3,714	16,327	55,842
Delaware	502	16	18	536	Oklahoma	10,152	726	4,200	15,078
Maryland	1,518	109	246	1,873	Texas	25,649	2,988	12,127	40,764
District of Columbia					Mountain	36,591	2,184	4,814	43,589
Lake States	38,040	3,221	3,886	45,147	Montana	14,560	578	1,189	16,327
Michigan	7,030	875	760	8,665	Idaho	5,599	266	767	6,632
Wisconsin	10,098	662	1,479	12,239	Wyoming	2,347	96	473	2,916
Minnesota	20,912	1,684	1,647	24,243	Colorado	9,131	609	1,078	10,818
Corn Belt	83,352	4,412	13,997	101,761	New Mexico	1,605	252	481	2,338
Ohio	10,674	618	1,266	12,558	Arizona	1,309	206	144	1,659
Indiana	12,307	620	1,103	14,030	Utah	1,425	118	491	2,034
Illinois	23,042	934	1,517	25,493	Nevada	615	59	191	865
Iowa	24,319	1,226	3,174	28,719	Pacific	21,068	1,253	3,057	25,378
Missouri	13,010	1,014	6,937	20,961	Washington	7,394	402	614	8,410
Northern Plains	88,422	5,056	9,425	102,903	Oregon	4,217	215	815	5,247
North Dakota	26,736	1,277	1,605	29,618	California	9,457	636	1,628	11,721
South Dakota	16,111	876	2,307	19,294	48 States	368,394	25,958	76,128	470,480
Nebraska	19,777	1,177	2,363	23,317	Alaska	21	4	4	29
Kansas	25,798	1,726	3,150	30,674	Hawaii	159	147	27	333
Appalachian	18,289	2,322	10,648	31,259	United States	368,574	26,109	76,159	470,842
Virginia	2,734	327	1,722	4,783					
West Virginia	706	91	814	1,611					
North Carolina	4,952	629	990	6,571					
Kentucky	4,923	789	4,134	9,846					
Tennessee	4,974	486	2,988	8,448					

¹ Includes cropland harvested, crop failure, and cultivated summer fallow. Estimates are based on (4 and 9).

² As reported in (9).

³ Cropland used only for pasture in 1978 as reported in (9).

Appendix table 3—Total pasture and range, by State and region, 1978

State and region	Cropland pasture ¹	Grassland pasture and range ³ grazed ³	Forest land	Total	State and region	Cropland pasture ¹	Grassland pasture and range ³ grazed ³	Forest land	Total
	1,000 acres					1,000 acres			
Northeast	3,117	2,963	2,147	8,227	Southeast	5,274	9,285	11,165	25,724
Maine	98	118	115	331	South Carolina	625	550	711	1,886
New Hampshire	46	32	73	151	Georgia	1,551	1,317	1,987	4,855
Vermont	254	188	385	827	Florida	1,300	5,469	6,586	13,355
Massachusetts	77	43	49	169	Alabama	1,798	1,949	1,881	5,628
Rhode Island	8	3	6	17	Delta States	5,583	5,777	17,177	28,537
Connecticut	55	47	51	153	Mississippi	1,960	1,856	5,619	9,435
New York	1,195	1,394	719	3,308	Arkansas	2,448	2,055	5,222	9,725
New Jersey	83	52	35	170	Louisiana	1,175	1,866	6,336	9,377
Pennsylvania	1,037	901	561	2,499	Southern Plains	16,327	111,477	20,765	148,569
Delaware	18	11	14	43	Oklahoma	4,200	17,549	6,519	28,268
Maryland	246	174	139	559	Texas	12,127	93,928	14,246	120,301
District of Columbia					Mountain	4,814	306,508	71,701	383,023
Lake States	3,886	4,715	3,719	12,320	Montana	1,189	48,869	7,433	57,491
Michigan	760	1,211	466	2,437	Idaho	767	21,004	5,179	26,950
Wisconsin	1,479	1,914	1,748	5,141	Wyoming	473	45,537	3,846	49,856
Minnesota	1,647	1,590	1,505	4,742	Colorado	1,078	28,731	12,745	42,554
Corn Belt	13,997	12,010	7,684	33,691	New Mexico	481	51,382	11,044	62,907
Ohio	1,266	1,545	753	3,564	Arizona	144	41,506	13,812	55,462
Indiana	1,103	1,347	743	3,193	Utah	491	23,503	11,295	35,289
Illinois	1,517	1,551	1,199	4,267	Nevada	191	45,976	6,347	52,514
Iowa	3,174	1,755	993	5,922	Pacific	3,057	52,595	28,919	84,571
Missouri	6,937	5,812	3,996	16,745	Washington	614	6,586	3,598	10,798
Northern Plains	9,425	73,208	2,105	84,738	Oregon	815	23,119	11,921	35,855
North Dakota	1,605	10,888	174	12,667	California	1,628	22,890	13,400	37,918
South Dakota	2,307	24,192	855	27,354	48 States	76,128	584,302	171,245	831,675
Nebraska	2,363	22,133	617	25,113	Alaska	4	1,276	66	1,346
Kansas	3,150	15,995	459	19,604	Hawaii	27	1,143	460	1,630
Appalachian	10,648	5,764	5,863	22,275	United States	76,159	586,721	171,771	834,651
Virginia	1,722	1,556	1,109	4,387					
West Virginia	814	653	793	2,260					
North Carolina	990	852	893	2,735					
Kentucky	4,134	1,301	1,442	6,877					
Tennessee	2,988	1,402	1,626	6,016					

¹ Cropland used only for pasture in 1978 as reported in (9).

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

³ Woodland grazed in farms plus an approximation of forested grazing land not in farms.

Appendix table 4—Land in special use areas, by State and region, 1978

State and region	Rural transportation areas ¹	Rural parks ²	Wildlife areas ³	Defense and industrial areas ⁴	Farmsteads, farm roads, and lanes ⁵	Total
1,000 acres						
Northeast	1,839	4,035	1,972	449	385	8,680
Maine	172	100	61	19	19	371
New Hampshire	81	97	16	7	7	208
Vermont	77	52	84	12	17	242
Massachusetts	78	244	64	26	13	425
Rhode Island	18	10	31	7	1	67
Connecticut	57	33	21	1	10	122
New York	445	2,935	140	166	124	3,810
New Jersey	95	93	171	53	21	433
Pennsylvania	647	333	1,208	29	130	2,347
Delaware	34	9	46	3	7	99
Maryland	135	129	130	126	36	556
District of Columbia						
Lake States	3,075	1,755	2,485	90	923	8,328
Michigan	990	444	333	19	231	2,017
Wisconsin	942	169	650	67	304	2,132
Minnesota	1,143	1,142	1,502	4	388	4,179
Corn Belt	3,809	706	917	370	1,835	7,637
Ohio	605	230	128	43	312	1,318
Indiana	493	79	89	178	292	1,131
Illinois	1,093	163	117	60	372	1,805
Iowa	913	50	234	19	452	1,668
Missouri	705	184	349	70	407	1,715
Northern Plains	3,794	606	1,041	207	1,023	6,671
North Dakota	998	87	498	13	228	1,824
South Dakota	770	361	252	8	192	1,583
Nebraska	889	129	207	22	279	1,526
Kansas	1,137	29	84	164	324	1,738
Appalachian	2,214	1,436	1,550	882	819	6,901
Virginia	384	329	255	258	157	1,383
West Virginia	213	99	77	2	61	452
North Carolina	654	371	310	267	212	1,814
Kentucky	493	124	47	170	210	1,044
Tennessee	470	513	861	185	179	2,208
Southeast	2,395	2,582	1,410	1,690	556	8,633
South Carolina	484	86	190	272	103	1,135
Georgia	585	128	474	542	139	1,868
Florida	696	2,304	325	697	134	4,156
Alabama	630	64	421	179	180	1,474
Delta States	1,211	246	1,014	261	626	3,358
Mississippi	406	63	120	22	218	829
Arkansas	408	157	371	95	218	1,249
Louisiana	397	26	523	144	190	1,280

See footnotes at end of table.

Continued—

Appendix table 4—Land in special use areas, by State and region, 1978—Continued

State and region	Rural transportation areas ¹	Rural parks ²	Wildlife areas ³	Defense and industrial areas ⁴	Farmsteads, farm roads, and lanes ⁵	Total
1,000 acres						
Southern Plains	2,394	1,270	537	653	1,072	5,926
Oklahoma	624	101	209	182	279	1,395
Texas	1,770	1,169	328	471	793	4,531
Mountain	3,723	22,497	5,944	12,986	615	45,765
Montana	682	4,445	686	12	147	5,972
Idaho	289	3,060	121	687	108	4,265
Wyoming	411	4,934	176	25	43	5,589
Colorado	735	2,054	296	300	130	3,515
New Mexico	425	1,438	489	2,564	58	4,974
Arizona	382	3,614	1,557	3,590	45	9,188
Utah	292	2,187	374	1,872	52	4,777
Nevada	507	765	2,245	3,936	32	7,485
Pacific	1,846	12,745	1,285	4,690	540	21,106
Washington	370	3,507	492	749	132	5,250
Oregon	418	1,477	578	66	120	2,659
California	1,058	7,761	215	3,875	288	13,197
48 States	26,300	47,878	18,155	22,278	8,394	123,005
Alaska	290	8,424	23,194	2,450	1	34,359
Hawaii	42	277	23	173	20	535
United States	26,632	56,579	41,372	24,901	8,415	157,899

¹ Includes rural highways and roads, railroads, and airports. Estimates for highways were derived by applying average right-of-way widths 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.

² Areas in national and State park systems and national forest wilderness and primitive areas plus about 2.7 million acres in New York classified as State forest preserves. Generally excludes parks in urban places and large water bodies. Based on data from reports and records of the National Park Service, Forest Service, and State agencies.

³ 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 areas leased for wildlife purposes. Data on Federal areas are from reports and records of the U.S. Fish and Wildlife Service. State estimates are acreages compiled by the Public Land Law Review Commission and Council on Environmental Quality updated through 1977 with acreages acquired through the Dingell-Johnson and Pittman-Robertson programs of Federal assistance.

⁴ As reported by the Bureau of Land Management (11). Includes land administered by the U.S. Department of Defense for defense purposes (22.8 million acres) and land administered by the U.S. Department of Energy (2.1 million acres).

⁵ Estimates calculated on the basis of State-by-State number of farms and acreage of unclassified land in farms.

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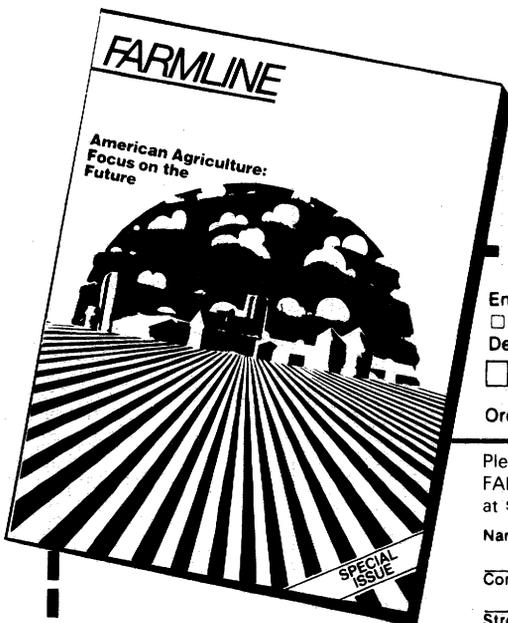
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