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SB 201 (1961)

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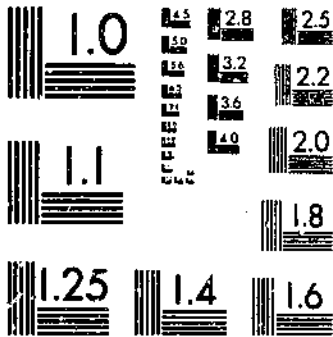
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ANIMAL UNITS OF LIVESTOCK FED ANNUALLY 1909 TO 1960

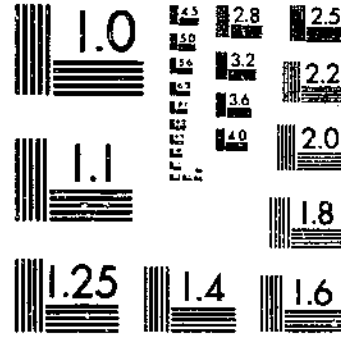
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ANIMAL UNITS

of livestock fed annually
1909 to 1960

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Washington, D. C.

December 1961

ANIMAL UNITS OF LIVESTOCK FED ANNUALLY
1909 to 1960^{1/}

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INTRODUCTION

When livestock numbers are converted into animal units - a measure of livestock numbers weighted by feed consumption - they can be compared with the supply and consumption of feed at the State, regional, or national level to determine (or project) the relative abundance or scarcity of feed available per animal unit. In this report, animal units are presented in three series: (1) Grain-consuming; (2) roughage-consuming; and (3) grain-and-roughage-consuming. (See tables 1 to 7 and figures 1 to 3.) These three designations provide measures of feed consumption in terms of (1) concentrates, (2) roughages including pasture, and (3) all feed including pasture.

An animal unit is the equivalent of one milk cow in terms of feed consumed. Each kind of livestock and poultry is converted into an animal unit or fraction thereof, by dividing the quantity of feed consumed per head by the quantity of feed consumed by one milk cow. In part I of this report, the base period 1940-45 is used in computing these ratios (or factors) for all livestock except broilers, for which the period 1953-55 is used. ^{2/} Part II of this report analyzes the need to change the base period as shown to the more recent period 1955-59. Part III presents a method of calculating high protein-consuming animal units in order to project the consumption of high-protein feeds for a year or two in advance.

^{1/} This publication supersedes Animal Units of Livestock Fed Annually, 1909-1959, U. S. Dept. Agr. Statis. Bul. 271, and brings to date the series on animal units fed annually.

^{2/} Feed consumption data for the various classes of livestock for the base periods are given in Jennings, R. D., Consumption of Feed by Livestock, 1909-1956, U. S. Dept. Agr. Prod. Res. Rpt. 21, Nov. 1958.

PART I - ANIMAL UNIT SERIES

Livestock and poultry numbers used in calculating animal units in the three series 3/ are designed to take into account all livestock and poultry fed on farms during the feeding year beginning October 1. 4/ They are based on numbers of livestock and poultry of different kinds on farms January 1 of the feeding year and on numbers raised during the year, as reported by the U. S. Department of Agriculture. Animal units are computed for each State by multiplying livestock numbers by factors that reflect the yearly consumption of feed by each of these classes of livestock within the State. 5/ The sum of the animal units of each kind of livestock equals the total animal units fed in the Nation in a feeding year.

Calculations of each of the three types of animal units were made separately. 6/ To determine grain-consuming animal units, livestock and poultry numbers are multiplied by a set of weights (or factors) that represent consumption of concentrate feeds. Similarly, to determine roughage-consuming animal units, the same numbers are multiplied by a set of weights that represent consumption of hay, pasture, and other forage. To determine grain-and-roughage-consuming animal units, the same numbers of livestock and of poultry are multiplied by a third set of weights representing consumption of feed of all kinds, including pasture.

In calculating animal units for the feeding year beginning Oct. 1, 1960, it was assumed that the number of broilers to be raised in 1961 would be 110 percent and the number of chickens 106 percent of the number raised in 1960. It was assumed also that the number of goats clipped would be 106 percent of the number clipped in 1960. The number of turkeys to be raised was taken from the January 1961 Intentions Report of the Statistical Reporting Service (formerly a part of the Agricultural Marketing Service).

Grain-Consuming Animal Units

The number of grain-consuming animal units increased from 153 million in 1947 to 168 million in 1950, declined to 159 million in 1953, increased again to about 165 million in 1955, dropped to 160 million in 1957, and has remained at about 166 since that time (table 1). These changes reflect mainly the variations in number of animal units of hogs and beef cattle. The numbers of animal units of beef cattle and poultry

3/ Animal units have been revised in this publication in accordance with revised estimates of livestock and poultry numbers, published in U. S. Agricultural Marketing Service, *Livestock and Poultry Inventory*, January 1, 1955-60, U. S. Dept. Agr. Statis. Bul. 278, Feb. 1961.

4/ The feeding year beginning Oct. 1 and extending to Sept. 30 is used in this report unless otherwise indicated. This is the period during which crops produced during the growing season of a year are fed to livestock.

5/ Factors used in each State are given in Jennings, R. D. *Animal Units of Livestock Fed Annually, 1909-1955*, U. S. Dept. Agr. Statis. Bul. 194.

6/ In this report, the following terms are used interchangeably: Grain-consuming animal units and animal units based on consumption of concentrates; roughage-consuming animal units and animal units based on consumption of roughages, including pasture; grain-and-roughage-consuming animal units and animal units based on consumption of all feed, including pasture.

increased by about 47 and 8 percent, respectively, in the last decade. During the same period, the number of animal units of horses and mules declined from 7 to 12 percent a year, except in 1959, when the decline was less than 5 percent. After 1960, official annual estimates of numbers of horses and mules were discontinued. A constant number is assumed in this study.

The number of grain-consuming animal units in the feeding year 1960 was about 1 million more than in 1959, mainly because of an increase in numbers of beef cattle and poultry. The fall pig crop of 1960 was 4 percent smaller than that of 1959, but the spring crop of 1961 was only 7 percent larger than that of 1960, with a net decrease of about 1.7 million animal units of hogs. The number of chickens raised in the calendar year 1961 is expected to increase by about 6 percent from the number in 1960. The number of hens and pullets on hand on January 1, 1961, was 3 percent less than a year earlier. About 10 percent more broilers and about 25 percent more turkeys are expected to be raised in calendar year 1961 than in 1960.

In the last 10 years, the composition of the livestock population changed in many ways (table 2). From 1951 to 1960, numbers of animal units declined as follows: milk cows 15 percent, hens and pullets 15 percent, farm chickens 40 percent, and horses and mules 53 percent. During this period, numbers of animal units increased as follows: cattle on feed about 60 percent, other beef cattle 30 percent, sheep 5 percent, broilers 220 percent, and turkeys 60 percent. The total number of animal units is about the same as 10 years ago, although during the 10 years, the number ranged from 156.8 million in 1953 to 167.7 million in 1958, a change of nearly 7 percent from the lowest to the highest number.

Roughage-Consuming Animal Units

The total number of roughage-consuming animal units fed in the feeding year 1960 was about 1 percent higher than in 1959, mainly because of a small increase in the number of animal units of beef cattle. The number of animal units of dairy cattle decreased slightly (table 3).

From a 10-year low of 82 million in 1948, numbers of roughage-consuming animal units increased steadily to the high level of about 96 million in 1954. After declining in 1956 and 1957, they climbed to a high of 95.4 million in 1960 (table 1). Previous high points were 97 million in 1943, 92 million in 1933, and 95 million in 1917. Low points before 1948 were 81 million in 1911, 79 million in 1927, and 81 million in 1937.

Grain-and-Roughage-Consuming Animal Units

The number of grain-and-roughage-consuming animal units increased about 1 percent in the feeding year 1960. The decrease in the number of animal units of hogs, the heavy grain consumers, was exceeded by the increase in the number of animal units of beef cattle, the heavy roughage consumers (table 4). The animal units of hogs in this series declined about 3 percent, and milk cows about 1 percent. Animal units of cattle on feed and of other beef cattle increased about 5 percent and 1 percent, respectively. Animal units of poultry increased about 4 percent.

The high point in this series was reached in 1943, when more than 120 million units were calculated. Other high points or crests occurred in 1918, 1933, and 1960. Animal units in 1960 lacked about 7 percent of equaling the record number in 1943. During the 10-year period 1951-60, the number increased about 3 percent.

Method of Projecting Animal Unit Numbers for Future Years

Animal units are estimated at the national level for a year or more in advance, when data on livestock numbers by States are not yet available. In table 8, the method of estimating is illustrated by projecting grain-consuming animal units of livestock for the feeding years 1960 and 1961. The total number of grain-consuming animal units determined by States for 1960 (table 5) differs only slightly from the number projected on a national basis for the same year (table 8). The small difference indicates the usability of the method for general projections at the national level. According to the assumptions used in these projections, units of grain-consuming livestock may increase to about 170 million in the feeding year 1961.

Grain-consuming animal units constitute a basic part of the livestock-feed balance. The data in this series are used by other agencies of the Department in estimating feed grain consumption and carryover at the national level. In economic research at both the National and State levels, projections of grain-consuming animal units are useful in discussing efficiency of livestock feeding.

Factors have been calculated also for the purpose of projecting roughage-consuming and grain-and-roughage-consuming animal units at the national level. ^{7/} Animal unit estimates are most helpful in times of high demand for feeds, such as occurred during World War II, during drought periods, or in other situations of feed shortage relative to feed demand, but they are also needed in times of surplus for the purpose of calculating how large the surplus may be.

Estimates of animal units for the current year and for a year ahead are revised as each livestock production report of the Statistical Reporting Service is released. Reports affecting the estimates are The Livestock and Poultry Inventory, the several Pig Crop Reports, Intentions to Raise Turkeys, and Chickens and Eggs, Including Broilers. Preliminary calculations are made on the basis of estimates of livestock numbers furnished by a committee of technicians of the Department of Agriculture.

Concentrates Fed Per Grain-Consuming Animal Unit

Concentrates fed per grain-consuming animal unit have increased steadily from 0.82 ton in 1956 to 0.96 ton in 1959 (table 9). Several influences contribute to the tendency to increase the rate of feeding per animal unit. Of particular importance are abundant supplies of concentrates, high livestock prices relative to feed prices, high prices of feeder livestock, substitution of low-priced concentrates for other more expensive factors of production, the tendency to enlarge livestock-feeding operations, mechanization of livestock feeding, and the increased use of formula feeds with some reduction in use of pasture.

^{7/} Jennings, R. D. Animal Units of Livestock Fed Annually, 1909 to 1956. U. S. Dept. Agr. Statis. Bul. 215, 12 pp. 1957.

PART II - CHANGE OF BASE PERIOD

As stated earlier, the base period for the development of the animal unit series is 1940-45. Considerable interest has been expressed in changing the base to a more recent period. In exploring this change, the period 1955-59 was selected as a base, and the number of animal units based on concentrates, roughage, and all feed was determined. A milk cow was still used as an animal unit (1.0) and the proportionate amount of feed fed other types of livestock was used to weight numbers of other livestock accordingly. Except for the different base period, the method used in computing the animal units is the same as the method previously used.

In the 20 years from 1940 to 1959, the many changes that took place in the livestock and poultry industry affected the rates of feeding. Some of the important changes were the greatly increased production of milk per cow; the continued decline in numbers of horses and mules; the increased efficiency of broiler and turkey production; the increased size of layers and the higher rate of lay; the increased vertical integration of livestock production, particularly broilers and turkeys; the growth of large-scale livestock raising and feeding operations; and the development and use of formula feeds. Since 1955, the availability of large supplies of feed grains at relatively favorable prices compared with slaughter livestock prices has probably encouraged the substitution of feed grains for other more expensive inputs in livestock feeding. Not all of these changes lead to increased efficiency in feed conversion; some of them may accompany changes in methods of management and type of work or product produced.

Changes in the estimated amounts of feed fed per head for the principal kinds of livestock from the base period 1940-45 to the period 1955-59 are given in table 10. The most important change affecting these series is the large increase in feed fed to milk cows. Concentrates, roughages including pasture, and all feed including pasture increased 47, 21, and 28 percent, respectively, from the early period to the later one. Since the milk cow weighted by much higher feed consumption is used for one animal unit, it is evident that animal units of other livestock are correspondingly fewer, even though they also are modified by changes in feeding rates.

The amount of concentrates fed to milk cows per head in 1955-59 as compared with 1940-46 increased more than the increases in amounts fed to any other kind of livestock. In fact, only beef cows, cattle on feed, other beef cattle, hens and pullets, and chickens raised show increases in amounts of concentrates fed. Compared with the increase of 47 percent in amount of concentrates fed per milk cow, these types of livestock showed increases of 23, 20, 23, 34, and 9 percent, respectively. Other dairy cattle, horses and mules, broilers, turkeys, and hogs showed decreases in amount of concentrates fed per head of 10, 35, 30, 12, and 2 percent, respectively.

The changes in roughages fed per head have been more limited, except where confinement raising of livestock has increased markedly and more substitution of grain for roughage has occurred. The roughage feeding rate for turkeys, hogs, and cattle on feed declined 25, 33, and 47 percent, respectively. The roughage feeding rate for milk cows and other dairy cattle increased 21 and 27 percent, respectively.

Excluding hens and pullets, milk cows show the greatest increase in all feed including pasture fed per head, an increase of 28 percent in 1955-59 over 1940-45. Other dairy cattle, beef cows, cattle on feed, and other beef cattle showed increases

of 23, 2, 19, and 2 percent, respectively. Hens and pullets and chickens raised show increases in feed fed, but since more of their feed in 1940-45 than in 1955-59 was waste or salvaged, the increase was more apparent than real. Sheep, goats, horses and mules, broilers, turkeys, and hogs received less feed per head in 1955-59 than in 1940-45.

Using the base period 1955-59, the number of animal units based on concentrates (grain-consuming) would be about 75 percent of the number obtained using 1940-45 as the base. This reduction was brought about primarily by the greater amount of feed fed to milk cows in the later than in the earlier period. The changes brought about by shifting the base period would be even more significant for the different kinds of livestock. Under the later base period, the number of animal units of broilers would be 50 percent of the number under the earlier period; hogs would be 72 percent; cattle on feed 85 percent; other beef cattle about 65 percent; and turkeys 57 percent. It would seem that enough changes have occurred to justify changing the series from the earlier to the later base period.

In the animal unit series based on roughages (roughage-consuming), the change in base period would result in a lowering of the number of animal units by about 10 percent. However, for other dairy cattle, cattle on feed, hogs, and horses and mules, the factors are higher for the later period and the number of units greater. Rather large reductions in animal unit numbers would occur for beef cows, other beef cattle, sheep, and poultry.

In the animal unit series based on all feed (grain-and-roughage-consuming) the total number of animal units would also be reduced about 10 percent by the shift to the later base period. Large reductions would occur in all livestock except for cattle on feed and hogs. These numbers would increase about 4 and 6 percent, respectively.

The effect of shifting the base period on amounts of concentrates and roughage fed per animal unit is shown in table 12. Concentrates fed per grain-consuming animal unit would be increased on the average about 35 percent by this change. Hay fed per roughage-consuming animal unit would be increased only about 12 percent.

This analysis indicates that a change in the base period from 1940-45 to a more recent period such as 1955-59 would improve the usefulness of these indexes.

PART III - HIGH PROTEIN-CONSUMING ANIMAL UNITS

For a number of years, high protein-consuming animal units have been calculated^{8/} using for basic data the series on grain-consuming animal units, and adjusting the units in accordance with the importance of high-protein feeds in all concentrates fed. In this series, dairy cattle units are 1.0, beef cattle, sheep, and poultry 0.8, and hogs 0.35.

^{8/} U. S. Agricultural Marketing Service. Grain and Feed Statistics, Supplement for 1960. U. S. Dept. Agr. Statis. Bul. 159, table 57, March 1961.

High protein-consuming animal units from 1940 to 1959, using average feed relationships during the period 1955-59, are given in table 13. For the base period 1955-59, if the high-protein feeds consumed by dairy cattle are assumed to be 1.0, those consumed by beef cattle would be 1.3, by sheep 2.4, by poultry 2.0, and by hogs 0.6. Changes in these factors from those previously used emphasize the increased feeding of high-protein feeds. The factor for beef cattle units increased 62 percent, for sheep 300 percent, for poultry 250 percent, and for hogs 71 percent. The use of feed relationships in 1955-59 as the base for this series increased the estimated number of high protein-consuming animal units by about a third. Adjusted to the 1955-59 base period, this series is expected to be usable in estimating the potential consumption of these feeds.

Note should be made that this series is based on high-protein feeds alone. No consideration is given to protein contained in feed grains, harvested forages, or pasture. In areas where large amounts of alfalfa hay or meal are fed, the factors would need to be modified.

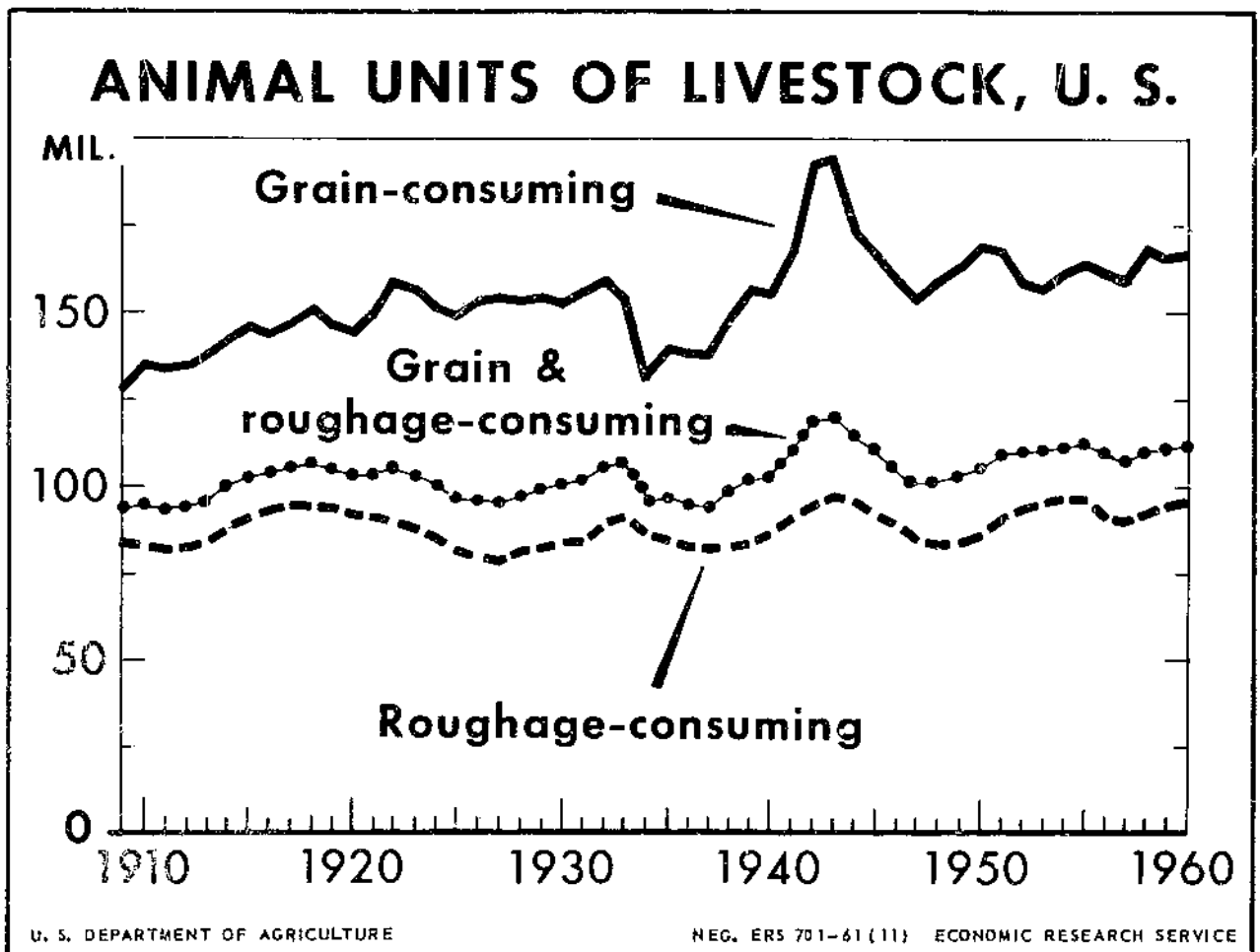


Figure 1

ROUGHAGE-CONSUMING ANIMAL UNITS

Eastern Six Regions of U. S. A.

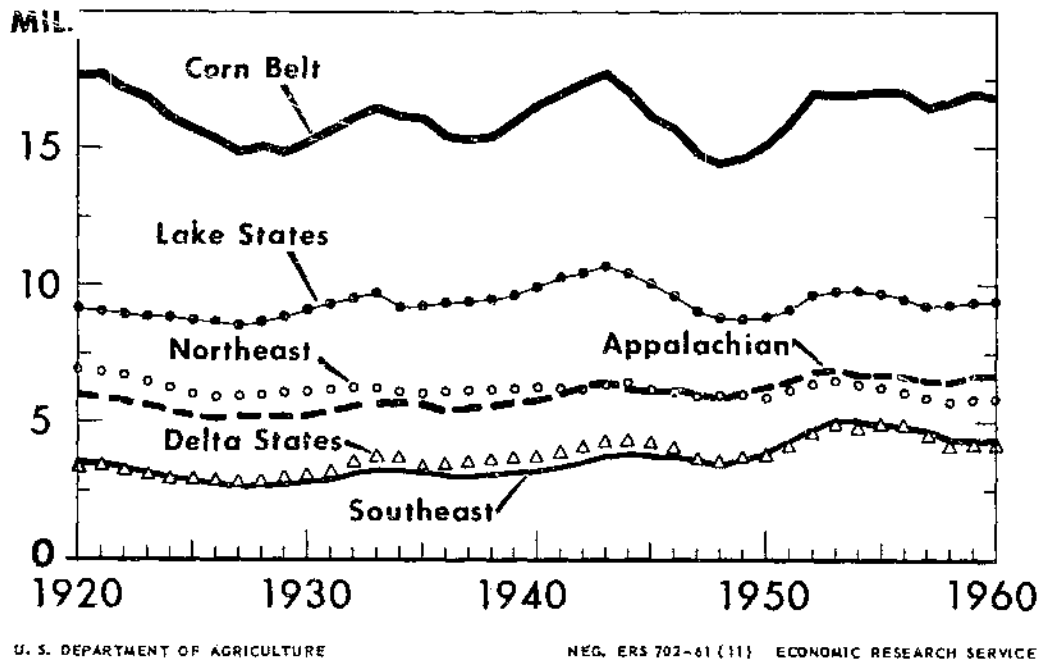


Figure 2

ROUGHAGE-CONSUMING ANIMAL UNITS

Western Four Regions of U. S. A.

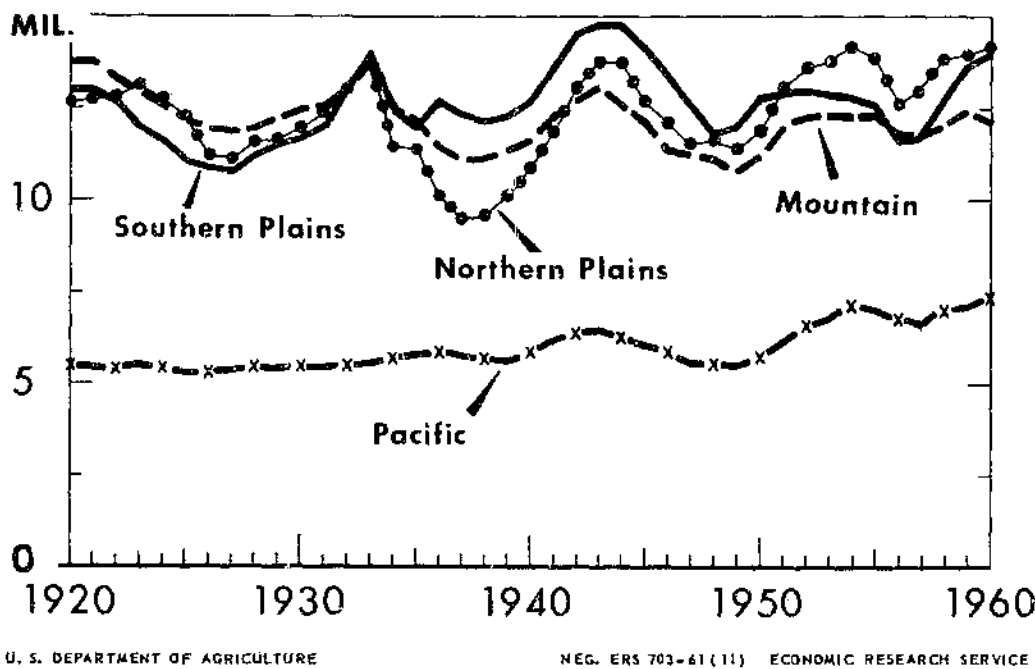


Figure 3

Table 1.- Animal units of livestock fed annually, by kinds, United States, 1909-60^{1/}

| Year beginning Oct. 1 | Grain-consuming | Roughage-consuming | Grain-and-roughage- consuming |
|--------------------------|-----------------------|--------------------|----------------------------------|
| | 1,000 units | 1,000 units | 1,000 units |
| 1909----- | 127,779 | 83,377 | 92,582 |
| 1910----- | 134,910 | 82,688 | 94,091 |
| 1911----- | 133,315 | 81,362 | 92,810 |
| 1912----- | 134,913 | 81,697 | 93,452 |
| 1913----- | 137,661 | 83,982 | 95,738 |
| 1914----- | 142,222 | 87,242 | 99,107 |
| 1915----- | 146,483 | 90,128 | 102,204 |
| 1916----- | 143,431 | 92,885 | 103,152 |
| 1917----- | 147,355 | 94,962 | 105,573 |
| 1918----- | 150,305 | 94,750 | 106,157 |
| 1919----- | 145,859 | 93,638 | 104,194 |
| 1920----- | 144,001 | 91,208 | 102,112 |
| 1921----- | 149,472 | 90,970 | 102,993 |
| 1922----- | 158,170 | 89,078 | 104,191 |
| 1923----- | 157,379 | 87,281 | 102,587 |
| 1924----- | 151,201 | 84,610 | 99,126 |
| 1925----- | 149,439 | 81,951 | 96,890 |
| 1926----- | 153,071 | 79,634 | 96,409 |
| 1927----- | 153,691 | 78,856 | 96,194 |
| 1928----- | 153,159 | 80,251 | 96,897 |
| 1929----- | 154,070 | 81,199 | 98,570 |
| 1930----- | 152,753 | 82,776 | 99,496 |
| 1931----- | 156,436 | 84,795 | 101,912 |
| 1932----- | 159,700 | 88,206 | 105,514 |
| 1933----- | 153,946 | 91,932 | 106,142 |
| 1934----- | 131,194 | 86,082 | 96,225 |
| 1935----- | 138,656 | 84,604 | 97,097 |
| 1936----- | 137,827 | 82,741 | 95,835 |
| 1937----- | 137,812 | 81,145 | 94,694 |
| 1938----- | 148,777 | 81,603 | 98,006 |
| 1939----- | 156,143 | 83,472 | 101,051 |
| 1940----- | 155,753 | 86,414 | 102,919 |
| 1941----- | 167,119 | 90,350 | 109,285 |
| 1942----- | 192,227 | 94,512 | 118,232 |
| 1943----- | 193,054 | 97,209 | 120,160 |
| 1944----- | 172,559 | 95,631 | 113,914 |
| 1945----- | 167,259 | 91,385 | 109,557 |
| 1946----- | 159,615 | 88,077 | 105,234 |
| 1947----- | 153,098 | 83,977 | 100,661 |
| 1948----- | 158,603 | 82,096 | 100,661 |
| 1949----- | 163,840 | 82,381 | 102,290 |
| 1950----- | 168,104 | 85,592 | 105,631 |
| 1951----- | 167,331 | 90,175 | 108,595 |
| 1952----- | ^{2/} 158,936 | 94,567 | 109,627 |
| 1953----- | ^{2/} 156,853 | 95,664 | 110,024 |
| 1954 ^{2/} ----- | 161,595 | 96,157 | 111,678 |
| 1955 ^{2/} ----- | 165,264 | 95,232 | 111,888 |
| 1956 ^{2/} ----- | 160,927 | 91,944 | 108,446 |
| 1957 ^{2/} ----- | 159,905 | 90,537 | 107,050 |
| 1958 ^{2/} ----- | 167,728 | 92,516 | 110,478 |
| 1959 ^{2/} ----- | 165,710 | 94,749 | 111,284 |
| 1960 ^{3/} ----- | 166,553 | 95,465 | 112,019 |

^{1/} See figure 1. Data for 48 States only.^{2/} Revised.^{3/} Preliminary.

Table 2. - Grain-consuming animal units fed annually, by kind of livestock, United States, 1951-60^{1/}

| Year beginning Oct. 1 | Milk cows | Other dairy cattle | Cattle on feed | Other beef cattle | Sheep | Hogs | Hens and pullets | Chickens raised | Broilers | Turkeys | Horses and mules | Total |
|--------------------------|-------------|--------------------|----------------|-------------------|-------------|-------------|------------------|-----------------|-------------|-------------|------------------|-------------|
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| 1951----- | 23,460 | 4,162 | 8,888 | 7,408 | 1,090 | 68,033 | 22,807 | 10,161 | 6,886 | 4,509 | 7,927 | 167,331 |
| 1952----- | 23,058 | 4,246 | 11,885 | 8,310 | 1,134 | 59,730 | 21,479 | 9,990 | 7,571 | 3,643 | 6,971 | 158,936 |
| 1953----- | 24,338 | 4,228 | 10,868 | 8,634 | 1,122 | 57,810 | 21,389 | 9,831 | 8,381 | 4,086 | 6,157 | 156,853 |
| 1954 ^{2/} ----- | 23,918 | 4,093 | 11,547 | 8,892 | 1,139 | 64,095 | 21,264 | 8,463 | 8,732 | 4,041 | 5,511 | 161,595 |
| 1955 ^{2/} ----- | 23,367 | 3,899 | 11,546 | 9,009 | 1,110 | 66,133 | 20,858 | 8,558 | 10,750 | 4,962 | 5,052 | 165,264 |
| 1956 ^{2/} ----- | 22,828 | 3,799 | 11,976 | 8,805 | 1,114 | 62,481 | 21,337 | 7,098 | 11,581 | 5,323 | 4,585 | 160,927 |
| 1957 ^{2/} ----- | 21,775 | 3,711 | 11,673 | 8,716 | 1,105 | 62,078 | 20,502 | 7,588 | 13,280 | 5,226 | 4,251 | 159,905 |
| 1958 ^{2/} ----- | 20,671 | 3,677 | 12,836 | 9,129 | 1,176 | 69,095 | 21,086 | 6,872 | 13,896 | 5,419 | 3,871 | 167,728 |
| 1959 ^{2/} ----- | 20,088 | 3,712 | 15,000 | 9,586 | 1,155 | 66,364 | 20,171 | 5,891 | 14,366 | 5,677 | 3,691 | 165,710 |
| 1960 ^{3/} ----- | 19,889 | 3,706 | 15,721 | 9,693 | 1,143 | 64,681 | 19,493 | 6,129 | 15,230 | 7,177 | 3,691 | 166,553 |

^{1/} Data for 48 States only.
^{2/} Revised.
^{3/} Preliminary.

Table 3. - Roughage-consuming animal units fed annually, by kind of livestock, United States, 1951-60^{1/}

| Year beginning Oct. 1 | Milk cows | Other dairy cattle | Cattle on feed | Other beef cattle | Sheep and goats | Hogs and poultry | Horses and mules | Total |
|--------------------------|-------------|--------------------|----------------|-------------------|-----------------|------------------|------------------|-------------|
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| 1951----- | 22,781 | 9,488 | 2,373 | 43,365 | 6,282 | 1,274 | 4,612 | 90,175 |
| 1952----- | 23,274 | 9,649 | 2,715 | 47,502 | 6,240 | 1,138 | 4,049 | 94,567 |
| 1953----- | 23,637 | 9,596 | 2,535 | 49,025 | 6,186 | 1,090 | 3,595 | 95,864 |
| 1954 ^{2/} ----- | 23,248 | 9,289 | 2,808 | 50,168 | 6,280 | 1,130 | 3,233 | 96,157 |
| 1955 ^{2/} ----- | 22,740 | 8,834 | 2,888 | 50,336 | 6,258 | 1,194 | 2,974 | 95,232 |
| 1956 ^{2/} ----- | 22,187 | 8,574 | 2,971 | 48,131 | 6,163 | 1,179 | 2,739 | 91,944 |
| 1957 ^{2/} ----- | 21,168 | 8,372 | 2,850 | 48,051 | 6,252 | 1,153 | 2,594 | 90,537 |
| 1958 ^{2/} ----- | 20,089 | 8,280 | 1,226 | 50,600 | 6,632 | 1,242 | 2,447 | 92,516 |
| 1959 ^{2/} ----- | 19,528 | 8,343 | 3,599 | 52,863 | 6,796 | 1,234 | 2,386 | 94,749 |
| 1960 ^{2/} ----- | 19,317 | 8,337 | 3,803 | 53,577 | 6,805 | 1,240 | 2,366 | 95,465 |

^{1/} Data for 48 States only.
^{2/} Revised.
^{3/} Preliminary.

Table 4. - Grain-and-roughage-consuming animal units fed annually, by kind of livestock, United States, 1951-60^{1/}

| Year beginning Oct. 1 | Milk cows | Other dairy cattle | Cattle on feed | Other beef cattle | Sheep and goats | Hogs | Poultry | Horses and mules | Total |
|--------------------------|-------------|--------------------|----------------|-------------------|-----------------|-------------|-------------|------------------|-------------|
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| 1951----- | 23,465 | 7,682 | 4,243 | 32,259 | 4,848 | 18,937 | 11,821 | 5,338 | 108,585 |
| 1952----- | 23,975 | 7,905 | 4,889 | 35,460 | 4,818 | 16,365 | 11,323 | 4,694 | 109,627 |
| 1953----- | 24,353 | 7,754 | 4,509 | 36,718 | 4,780 | 15,833 | 11,815 | 4,162 | 110,024 |
| 1954 ^{2/} ----- | 23,954 | 7,510 | 4,991 | 37,595 | 4,860 | 17,538 | 11,476 | 3,734 | 111,678 |
| 1955 ^{2/} ----- | 23,446 | 7,139 | 5,073 | 37,768 | 4,829 | 18,146 | 12,117 | 3,430 | 111,898 |
| 1956 ^{2/} ----- | 22,870 | 6,931 | 5,244 | 36,103 | 4,756 | 17,174 | 12,220 | 3,139 | 108,446 |
| 1957 ^{2/} ----- | 21,837 | 6,782 | 5,070 | 36,005 | 4,890 | 17,042 | 12,491 | 2,453 | 107,050 |
| 1958 ^{2/} ----- | 20,734 | 6,692 | 5,647 | 37,853 | 5,111 | 18,950 | 12,746 | 2,745 | 110,178 |
| 1959 ^{2/} ----- | 20,161 | 6,738 | 6,347 | 39,544 | 5,227 | 18,218 | 12,394 | 2,655 | 111,284 |
| 1960 ^{3/} ----- | 19,957 | 6,735 | 6,680 | 40,091 | 5,235 | 17,749 | 12,917 | 2,655 | 112,019 |

^{1/} Data for 48 States only.
^{2/} Revised.
^{3/} Preliminary.

Table 5.- Grain-consuming animal units fed annually, by States, 1951-60

| State | Year beginning Oct. 1 | | | | | | | | | |
|-------------------------------|-----------------------|----------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 1951 | 1952 | 1953 | 1954 ^{1/} | 1955 ^{1/} | 1956 ^{1/} | 1957 ^{1/} | 1958 ^{1/} | 1959 ^{1/} | 1960 ^{2/} |
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| Northeast: | | | | | | | | | | |
| Maine----- | 831 | 869 | 892 | 907 | 961 | 1,021 | 1,074 | 1,089 | 1,050 | 1,073 |
| New Hampshire----- | 456 | 464 | 481 | 456 | 442 | 406 | 384 | 358 | 333 | 332 |
| Vermont----- | 541 | 568 | 587 | 577 | 566 | 538 | 502 | 489 | 476 | 473 |
| Massachusetts----- | 931 | 899 | 902 | 885 | 864 | 807 | 785 | 733 | 665 | 656 |
| Rhode Island----- | 99 | 98 | 97 | 94 | 94 | 89 | 88 | 85 | 82 | 80 |
| Connecticut----- | 793 | 823 | 820 | 815 | 828 | 789 | 779 | 748 | 683 | 679 |
| New York----- | 3,856 | 3,807 | 3,743 | 3,728 | 3,714 | 3,583 | 3,460 | 3,346 | 3,216 | 3,206 |
| New Jersey----- | 1,690 | 1,740 | 1,732 | 1,746 | 1,805 | 1,775 | 1,634 | 1,545 | 1,378 | 1,296 |
| Pennsylvania----- | 5,200 | 5,211 | 5,134 | 5,030 | 5,115 | 4,970 | 4,809 | 4,741 | 4,663 | 4,614 |
| Delaware----- | 738 | 762 | 787 | 764 | 822 | 925 | 932 | 848 | 891 | 938 |
| Maryland----- | 1,471 | 1,470 | 1,412 | 1,385 | 1,426 | 1,439 | 1,513 | 1,538 | 1,560 | 1,588 |
| Lake States: | | | | | | | | | | |
| Michigan----- | 3,697 | 3,491 | 3,489 | 3,435 | 3,439 | 3,244 | 2,990 | 3,066 | 2,979 | 2,865 |
| Wisconsin----- | 7,234 | 7,030 | 7,226 | 7,456 | 7,369 | 7,167 | 7,281 | 7,502 | 7,195 | 7,331 |
| Minnesota----- | 9,650 | 9,212 | 9,434 | 9,945 | 9,910 | 9,474 | 9,528 | 10,321 | 10,000 | 10,297 |
| Corn Belt: | | | | | | | | | | |
| Ohio----- | 7,543 | 7,045 | 6,966 | 7,130 | 7,337 | 7,016 | 6,673 | 6,770 | 6,586 | 6,657 |
| Indiana----- | 9,253 | 8,688 | 8,689 | 8,878 | 9,398 | 9,167 | 8,824 | 9,102 | 8,754 | 8,869 |
| Illinois----- | 13,395 | 12,875 | 12,802 | 13,393 | 13,891 | 13,893 | 13,622 | 14,299 | 13,856 | 13,882 |
| Iowa----- | 23,446 | 23,027 | 22,359 | 23,784 | 23,663 | 22,674 | 22,755 | 24,709 | 23,944 | 23,485 |
| Missouri----- | 8,670 | 7,985 | 7,924 | 8,060 | 8,657 | 8,351 | 8,080 | 8,557 | 8,265 | 8,327 |
| Northern Plains: | | | | | | | | | | |
| North Dakota----- | 1,659 | 1,576 | 1,586 | 1,657 | 1,727 | 1,590 | 1,583 | 1,658 | 1,530 | 1,560 |
| South Dakota----- | 3,903 | 3,693 | 3,691 | 4,031 | 3,981 | 3,675 | 3,911 | 4,373 | 4,009 | 4,007 |
| Nebraska----- | 7,898 | 7,744 | 7,342 | 7,843 | 7,300 | 6,699 | 6,812 | 7,704 | 7,480 | 7,529 |
| Kansas----- | 4,308 | 3,587 | 3,436 | 3,451 | 3,376 | 3,050 | 3,130 | 3,436 | 3,407 | 3,596 |
| Appalachian: | | | | | | | | | | |
| Virginia----- | 742 | 2,730 | 2,633 | 2,561 | 2,665 | 2,667 | 2,585 | 2,524 | 2,507 | 2,519 |
| West Virginia----- | 1,057 | 963 | 970 | 923 | 841 | 864 | 817 | 796 | 754 | 735 |
| North Carolina----- | 3,663 | 3,588 | 3,590 | 3,775 | 3,886 | 4,080 | 4,370 | 4,480 | 4,699 | 4,563 |
| Kentucky----- | 3,213 | 2,886 | 2,822 | 2,917 | 3,107 | 3,138 | 3,056 | 3,091 | 3,158 | 3,172 |
| Tennessee----- | 3,315 | 2,951 | 2,841 | 2,919 | 3,050 | 3,064 | 3,001 | 3,061 | 3,154 | 3,076 |
| Southeast: | | | | | | | | | | |
| South Carolina----- | 1,618 | 1,534 | 1,395 | 1,345 | 1,398 | 1,415 | 1,367 | 1,368 | 1,385 | 1,355 |
| Georgia----- | 3,929 | 3,781 | 3,932 | 4,205 | 4,595 | 4,920 | 5,178 | 5,411 | 5,615 | 5,652 |
| Florida----- | 1,211 | 1,219 | 1,183 | 1,151 | 1,202 | 1,252 | 1,246 | 1,292 | 1,333 | 1,371 |
| Alabama----- | 2,785 | 2,565 | 2,652 | 2,764 | 2,971 | 3,031 | 3,224 | 3,509 | 3,683 | 3,679 |
| Delta States: | | | | | | | | | | |
| Mississippi----- | 2,454 | 2,390 | 2,312 | 2,275 | 2,459 | 2,491 | 2,541 | 2,673 | 2,810 | 2,790 |
| Arkansas----- | 2,365 | 2,214 | 2,121 | 2,032 | 2,298 | 2,354 | 2,433 | 2,668 | 2,862 | 2,950 |
| Louisiana----- | 1,396 | 1,314 | 1,215 | 1,200 | 1,264 | 1,248 | 1,132 | 1,073 | 1,093 | 1,052 |
| Southern Plains: | | | | | | | | | | |
| Oklahoma----- | 2,472 | 1,982 | 1,904 | 1,882 | 1,888 | 1,726 | 1,569 | 1,685 | 1,636 | 1,593 |
| Texas----- | 6,115 | 5,421 | 5,045 | 5,172 | 5,453 | 5,183 | 5,075 | 5,450 | 5,406 | 5,357 |
| Mountain: | | | | | | | | | | |
| Montana----- | 727 | 657 | 651 | 664 | 680 | 620 | 620 | 644 | 641 | 648 |
| Idaho----- | 689 | 646 | 635 | 660 | 671 | 641 | 636 | 691 | 737 | 730 |
| Wyoming----- | 336 | 314 | 298 | 280 | 275 | 276 | 278 | 293 | 304 | 288 |
| Colorado----- | 1,303 | 1,179 | 1,086 | 1,104 | 1,111 | 1,091 | 1,082 | 1,170 | 1,406 | 1,399 |
| New Mexico----- | 293 | 261 | 246 | 249 | 265 | 251 | 239 | 261 | 280 | 273 |
| Arizona----- | 209 | 204 | 215 | 254 | 286 | 296 | 280 | 305 | 425 | 458 |
| Utah----- | 589 | 527 | 572 | 567 | 570 | 568 | 570 | 546 | 577 | 647 |
| Nevada----- | 69 | 66 | 67 | 68 | 64 | 64 | 63 | 60 | 70 | 70 |
| Pacific: | | | | | | | | | | |
| Washington----- | 1,105 | 1,057 | 1,074 | 1,110 | 1,121 | 1,079 | 1,124 | 1,178 | 1,205 | 1,217 |
| Oregon----- | 1,086 | 1,007 | 984 | 1,032 | 1,042 | 995 | 1,005 | 1,032 | 1,042 | 1,066 |
| California----- | 5,026 | 4,806 | 4,879 | 5,023 | 5,257 | 5,321 | 5,274 | 5,424 | 6,026 | 6,553 |
| 48 States ^{3/} ----- | 167,331 | 158,936 | 156,853 | 161,595 | 165,264 | 160,927 | 159,905 | 167,728 | 165,710 | 166,553 |

^{1/} Revised.^{2/} Preliminary.^{3/} Data not available for Alaska and Hawaii.

Table 6. - Roughage-consuming animal units fed annually, by States, 1951-60^{1/}

| State | Year beginning Oct. 1 | | | | | | | | | |
|-------------------------------|-----------------------|--------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 1951 | 1952 | 1953 | 1954 ^{2/} | 1955 ^{2/} | 1956 ^{2/} | 1957 ^{2/} | 1958 ^{2/} | 1959 ^{2/} | 1960 ^{3/} |
| | units | units | units | units | units | units | units | units | units | units |
| Northeast: | | | | | | | | | | |
| Maine----- | 239 | 258 | 260 | 247 | 239 | 228 | 214 | 207 | 207 | 212 |
| New Hampshire----- | 122 | 128 | 130 | 124 | 124 | 118 | 109 | 105 | 103 | 103 |
| Vermont----- | 455 | 488 | 498 | 490 | 490 | 469 | 445 | 436 | 437 | 442 |
| Massachusetts----- | 200 | 211 | 210 | 205 | 196 | 187 | 173 | 164 | 163 | 165 |
| Rhode Island----- | 30 | 30 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 22 |
| Connecticut----- | 190 | 192 | 193 | 192 | 197 | 179 | 170 | 163 | 160 | 162 |
| New York----- | 2,334 | 2,402 | 2,422 | 2,400 | 2,362 | 2,313 | 2,240 | 2,190 | 2,199 | 2,220 |
| New Jersey----- | 253 | 261 | 264 | 262 | 261 | 254 | 243 | 236 | 228 | 225 |
| Pennsylvania----- | 1,748 | 1,832 | 1,870 | 1,863 | 1,831 | 1,821 | 1,771 | 1,767 | 1,818 | 1,846 |
| Delaware----- | 66 | 69 | 71 | 67 | 64 | 60 | 58 | 54 | 53 | 50 |
| Maryland----- | 448 | 481 | 509 | 488 | 467 | 458 | 449 | 447 | 441 | 451 |
| Lake States: | | | | | | | | | | |
| Michigan----- | 1,770 | 1,857 | 1,840 | 1,807 | 1,751 | 1,673 | 1,572 | 1,557 | 1,559 | 1,548 |
| Wisconsin----- | 4,050 | 4,279 | 4,348 | 4,365 | 4,352 | 4,295 | 4,200 | 4,158 | 4,206 | 4,254 |
| Minnesota----- | 3,300 | 3,512 | 3,618 | 3,635 | 3,614 | 3,589 | 3,478 | 3,497 | 3,577 | 3,633 |
| Corn Belt: | | | | | | | | | | |
| Ohio----- | 2,317 | 2,401 | 2,442 | 2,402 | 2,401 | 2,353 | 2,271 | 2,226 | 2,232 | 2,231 |
| Indiana----- | 1,879 | 2,039 | 2,066 | 2,043 | 2,069 | 2,046 | 1,939 | 1,900 | 1,948 | 1,980 |
| Illinois----- | 3,222 | 3,436 | 3,488 | 3,459 | 3,498 | 3,600 | 3,440 | 3,405 | 3,449 | 3,361 |
| Iowa----- | 4,893 | 5,262 | 5,121 | 5,308 | 5,251 | 5,207 | 5,217 | 5,437 | 5,621 | 5,459 |
| Missouri----- | 3,630 | 3,867 | 3,851 | 3,775 | 3,777 | 3,767 | 3,562 | 3,687 | 3,751 | 3,825 |
| Northern Plains: | | | | | | | | | | |
| North Dakota----- | 1,562 | 1,772 | 1,938 | 1,998 | 3,071 | 1,966 | 1,864 | 1,826 | 1,783 | 1,907 |
| South Dakota----- | 2,890 | 3,070 | 3,225 | 3,325 | 3,367 | 3,201 | 3,246 | 3,362 | 3,345 | 3,397 |
| Nebraska----- | 4,328 | 4,594 | 4,419 | 4,690 | 4,412 | 4,123 | 4,203 | 4,500 | 4,665 | 4,757 |
| Kansas----- | 4,208 | 4,162 | 4,169 | 4,185 | 4,025 | 3,368 | 3,739 | 4,121 | 4,216 | 4,238 |
| Appalachian: | | | | | | | | | | |
| Virginia----- | 1,433 | 1,529 | 1,535 | 1,500 | 1,496 | 1,472 | 1,430 | 1,433 | 1,461 | 1,475 |
| West Virginia----- | 686 | 704 | 699 | 680 | 673 | 648 | 611 | 594 | 604 | 602 |
| North Carolina----- | 848 | 949 | 981 | 961 | 929 | 897 | 871 | 843 | 839 | 832 |
| Kentucky----- | 1,902 | 1,954 | 1,949 | 1,901 | 1,978 | 2,040 | 2,017 | 2,037 | 2,094 | 2,141 |
| Tennessee----- | 1,592 | 1,654 | 1,692 | 1,624 | 1,608 | 1,611 | 1,575 | 1,556 | 1,623 | 1,657 |
| Southeast: | | | | | | | | | | |
| South Carolina----- | 452 | 517 | 557 | 561 | 550 | 539 | 504 | 467 | 455 | 456 |
| Georgia----- | 1,101 | 1,217 | 1,304 | 1,346 | 1,282 | 1,252 | 1,220 | 1,140 | 1,139 | 1,145 |
| Florida----- | 1,413 | 1,517 | 1,527 | 1,525 | 1,494 | 1,540 | 1,556 | 1,426 | 1,400 | 1,364 |
| Alabama----- | 1,336 | 1,522 | 1,652 | 1,587 | 1,511 | 1,483 | 1,444 | 1,397 | 1,390 | 1,388 |
| Delta States: | | | | | | | | | | |
| Mississippi----- | 1,571 | 1,762 | 1,885 | 1,987 | 1,998 | 1,997 | 1,893 | 1,704 | 1,714 | 1,708 |
| Arkansas----- | 1,242 | 1,336 | 1,386 | 1,299 | 1,304 | 1,310 | 1,218 | 1,140 | 1,120 | 1,132 |
| Louisiana----- | 1,312 | 1,520 | 1,594 | 1,560 | 1,570 | 1,575 | 1,481 | 1,375 | 1,413 | 1,455 |
| Southern Plains: | | | | | | | | | | |
| Oklahoma----- | 2,929 | 3,058 | 3,146 | 3,084 | 2,972 | 2,799 | 2,759 | 3,057 | 3,209 | 3,342 |
| Texas----- | 9,961 | 9,907 | 9,707 | 9,713 | 9,661 | 8,830 | 8,921 | 9,706 | 10,446 | 10,804 |
| Mountain: | | | | | | | | | | |
| Montana----- | 2,488 | 2,546 | 2,672 | 2,758 | 2,794 | 2,568 | 2,542 | 2,585 | 2,640 | 2,513 |
| Idaho----- | 1,411 | 1,474 | 1,533 | 1,611 | 1,619 | 1,585 | 1,578 | 1,641 | 1,658 | 1,640 |
| Wyoming----- | 1,598 | 1,617 | 1,603 | 1,504 | 1,527 | 1,550 | 1,565 | 1,602 | 1,633 | 1,569 |
| Colorado----- | 2,341 | 2,388 | 2,335 | 2,267 | 2,227 | 2,173 | 2,226 | 2,370 | 2,470 | 2,446 |
| New Mexico----- | 1,484 | 1,474 | 1,414 | 1,389 | 1,421 | 1,305 | 1,255 | 1,330 | 1,384 | 1,368 |
| Arizona----- | 901 | 1,032 | 1,007 | 1,038 | 1,055 | 990 | 972 | 992 | 1,054 | 1,047 |
| Utah----- | 1,010 | 1,057 | 1,056 | 1,064 | 1,024 | 998 | 983 | 995 | 1,001 | 995 |
| Nevada----- | 677 | 681 | 689 | 691 | 675 | 656 | 623 | 624 | 620 | 589 |
| Pacific: | | | | | | | | | | |
| Washington----- | 1,074 | 1,162 | 1,209 | 1,256 | 1,246 | 1,128 | 1,127 | 1,180 | 1,224 | 1,240 |
| Oregon----- | 1,421 | 1,548 | 1,618 | 1,658 | 1,602 | 1,508 | 1,507 | 1,577 | 1,596 | 1,613 |
| California----- | 3,658 | 3,839 | 3,932 | 4,234 | 4,179 | 4,179 | 4,030 | 4,275 | 4,377 | 4,456 |
| 48 States ^{4/} ----- | 90,175 | 94,567 | 95,664 | 96,157 | 95,232 | 91,944 | 90,537 | 92,516 | 94,749 | 95,465 |

^{1/} See figure 2.^{2/} Revised.^{3/} Preliminary.^{4/} Data not available for Alaska and Hawaii.

Table 7. - Grain-and-roughage-consuming animal units fed annually, by States, 1951-60

| State | Year beginning Oct. 1 | | | | | | | | | |
|-------------------------------|-----------------------|----------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 1951 | 1952 | 1953 | 1954 ^{1/} | 1955 ^{1/} | 1956 ^{1/} | 1957 ^{1/} | 1958 ^{1/} | 1959 ^{1/} | 1960 ^{2/} |
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| Northeast: | | | | | | | | | | |
| Maine----- | 389 | 411 | 420 | 412 | 420 | 427 | 430 | 427 | 419 | 428 |
| New Hampshire----- | 207 | 214 | 218 | 210 | 206 | 193 | 179 | 169 | 161 | 163 |
| Vermont----- | 471 | 502 | 517 | 507 | 505 | 483 | 455 | 445 | 443 | 445 |
| Massachusetts----- | 392 | 396 | 394 | 385 | 374 | 353 | 337 | 316 | 298 | 297 |
| Rhode Island----- | 49 | 50 | 49 | 48 | 46 | 45 | 42 | 42 | 39 | 38 |
| Connecticut----- | 340 | 359 | 357 | 356 | 355 | 340 | 330 | 316 | 297 | 298 |
| New York----- | 2,762 | 2,798 | 2,786 | 2,778 | 2,747 | 2,678 | 2,594 | 2,524 | 2,496 | 2,511 |
| New Jersey----- | 620 | 641 | 638 | 644 | 655 | 630 | 599 | 572 | 524 | 502 |
| Pennsylvania----- | 2,651 | 2,725 | 2,743 | 2,716 | 2,713 | 2,672 | 2,561 | 2,569 | 2,593 | 2,600 |
| Delaware----- | 235 | 251 | 264 | 252 | 281 | 286 | 285 | 258 | 267 | 277 |
| Maryland----- | 717 | 745 | 753 | 731 | 722 | 720 | 729 | 734 | 733 | 747 |
| Lake States: | | | | | | | | | | |
| Michigan----- | 2,313 | 2,319 | 2,308 | 2,274 | 2,234 | 2,124 | 1,977 | 1,981 | 1,961 | 1,923 |
| Wisconsin----- | 4,885 | 4,995 | 5,098 | 5,187 | 5,150 | 5,055 | 5,015 | 5,049 | 5,001 | 5,071 |
| Minnesota----- | 4,928 | 4,994 | 5,139 | 5,281 | 5,245 | 5,118 | 5,050 | 5,270 | 5,249 | 5,374 |
| Corn Belt: | | | | | | | | | | |
| Ohio----- | 3,677 | 3,604 | 3,613 | 3,633 | 3,669 | 3,548 | 3,397 | 3,392 | 3,345 | 3,363 |
| Indiana----- | 3,825 | 3,771 | 3,787 | 3,820 | 3,068 | 3,885 | 3,718 | 3,772 | 3,694 | 3,742 |
| Illinois----- | 5,671 | 5,658 | 5,586 | 5,811 | 5,853 | 6,008 | 5,828 | 5,973 | 5,867 | 5,818 |
| Iowa----- | 9,359 | 9,489 | 9,247 | 9,730 | 9,653 | 9,371 | 9,390 | 10,044 | 9,946 | 9,726 |
| Missouri----- | 4,826 | 4,794 | 4,774 | 4,764 | 4,918 | 4,832 | 4,620 | 4,843 | 4,805 | 4,870 |
| Northern Plains: | | | | | | | | | | |
| North Dakota----- | 1,607 | 1,666 | 1,785 | 1,847 | 1,921 | 1,810 | 1,741 | 1,734 | 1,673 | 1,770 |
| South Dakota----- | 3,050 | 3,133 | 3,246 | 3,402 | 3,422 | 3,230 | 3,316 | 3,514 | 3,415 | 3,453 |
| Nebraska----- | 4,980 | 5,134 | 4,925 | 5,234 | 4,905 | 4,561 | 4,633 | 5,055 | 5,108 | 5,184 |
| Kansas----- | 4,135 | 3,917 | 3,895 | 3,916 | 3,776 | 3,225 | 3,491 | 3,840 | 3,899 | 3,966 |
| Appalachian: | | | | | | | | | | |
| Virginia----- | 1,792 | 1,812 | 1,789 | 1,753 | 1,778 | 1,770 | 1,720 | 1,714 | 1,709 | 1,726 |
| West Virginia----- | 758 | 756 | 755 | 731 | 730 | 689 | 651 | 632 | 626 | 621 |
| North Carolina----- | 1,627 | 1,679 | 1,703 | 1,746 | 1,746 | 1,775 | 1,831 | 1,844 | 1,865 | 1,844 |
| Kentucky----- | 2,249 | 2,193 | 2,177 | 2,171 | 2,279 | 2,331 | 2,292 | 2,325 | 2,377 | 2,419 |
| Tennessee----- | 2,092 | 2,033 | 2,032 | 2,012 | 2,040 | 2,050 | 2,008 | 2,026 | 2,091 | 2,098 |
| Southeast: | | | | | | | | | | |
| South Carolina----- | 779 | 814 | 810 | 798 | 801 | 798 | 759 | 731 | 724 | 715 |
| Georgia----- | 1,900 | 1,952 | 2,063 | 2,171 | 2,219 | 2,278 | 2,318 | 2,319 | 2,366 | 2,376 |
| Florida----- | 1,281 | 1,361 | 1,371 | 1,361 | 1,354 | 1,400 | 1,406 | 1,334 | 1,324 | 1,306 |
| Alabama----- | 1,710 | 1,787 | 1,906 | 1,897 | 1,894 | 1,891 | 1,911 | 1,952 | 1,989 | 1,986 |
| Delta States: | | | | | | | | | | |
| Mississippi----- | 1,828 | 1,959 | 2,038 | 2,112 | 2,164 | 2,174 | 2,109 | 2,002 | 2,048 | 2,037 |
| Arkansas----- | 1,564 | 1,598 | 1,609 | 1,522 | 1,598 | 1,610 | 1,566 | 1,566 | 1,599 | 1,630 |
| Louisiana----- | 1,420 | 1,564 | 1,597 | 1,568 | 1,596 | 1,591 | 1,488 | 1,391 | 1,420 | 1,441 |
| Southern Plains: | | | | | | | | | | |
| Oklahoma----- | 2,681 | 2,638 | 2,676 | 2,625 | 2,549 | 2,386 | 2,310 | 2,541 | 2,629 | 2,705 |
| Texas----- | 8,547 | 8,311 | 8,061 | 8,108 | 8,143 | 7,504 | 7,532 | 8,177 | 8,668 | 8,891 |
| Mountain: | | | | | | | | | | |
| Montana----- | 1,975 | 2,001 | 2,091 | 2,155 | 2,186 | 2,013 | 1,993 | 2,032 | 2,064 | 1,977 |
| Idaho----- | 1,204 | 1,241 | 1,285 | 1,349 | 1,354 | 1,312 | 1,300 | 1,366 | 1,378 | 1,364 |
| Wyoming----- | 1,247 | 1,252 | 1,240 | 1,166 | 1,177 | 1,197 | 1,207 | 1,240 | 1,263 | 1,214 |
| Colorado----- | 2,037 | 2,041 | 1,979 | 1,936 | 1,907 | 1,862 | 1,898 | 2,026 | 2,118 | 2,101 |
| New Mexico----- | 1,153 | 1,138 | 1,089 | 1,072 | 1,102 | 1,014 | 975 | 1,035 | 1,074 | 1,062 |
| Arizona----- | 797 | 829 | 815 | 856 | 879 | 847 | 817 | 844 | 907 | 912 |
| Utah----- | 907 | 930 | 942 | 948 | 917 | 897 | 886 | 886 | 893 | 909 |
| Nevada----- | 518 | 520 | 526 | 530 | 514 | 500 | 474 | 477 | 472 | 450 |
| Pacific: | | | | | | | | | | |
| Washington----- | 1,073 | 1,127 | 1,164 | 1,203 | 1,199 | 1,105 | 1,115 | 1,167 | 1,204 | 1,221 |
| Oregon----- | 1,299 | 1,374 | 1,422 | 1,462 | 1,421 | 1,342 | 1,344 | 1,403 | 1,416 | 1,438 |
| California----- | 4,059 | 4,141 | 4,232 | 4,488 | 4,503 | 4,516 | 4,390 | 4,609 | 4,827 | 5,009 |
| 48 States^{3/} | 108,595 | 109,627 | 110,024 | 111,678 | 111,888 | 108,446 | 107,050 | 110,478 | 111,284 | 112,019 |

1/ Revised.

2/ Preliminary.

3/ Data not available for Alaska and Hawaii.

Table 8. - Calculation of grain-consuming animal units, United States, for the years 1960 and 1961, beginning Oct. 1, each year^{1/}

| Type of livestock | Feeding year 1960 | | | Feeding year 1961 ^{2/} | | |
|-------------------------------------|-------------------|--------|------------------------------|---------------------------------|--------|------------------------------|
| | Number | Factor | Grain-consuming animal units | Number | Factor | Grain-consuming animal units |
| | Thousands | | 1,000 units | Thousands | | 1,000 units |
| On farms, Jan. 1 of feeding year: | | | | | | |
| Cattle: | | | | | | |
| Milk cows----- | 19,291 | 1.02 | 19,677 | 19,100 | 1.02 | 19,482 |
| Milk heifers and heifer calves----- | 10,645 | .344 | 3,662 | 10,700 | .344 | 3,681 |
| Beef cows----- | 26,984 | .167 | 4,506 | 27,300 | .167 | 4,559 |
| Cattle on feed----- | 7,950 | 2.0 | 15,900 | 8,000 | 2.00 | 16,000 |
| Other cattle----- | 32,269 | .154 | 4,969 | 32,900 | .154 | 5,067 |
| Stock sheep----- | 28,677 | .022 | 631 | 28,100 | .022 | 618 |
| Sheep and lambs on feed----- | 4,255 | .12 | 511 | 4,200 | .12 | 504 |
| Horses and mules: | | | | | | |
| 2 years and over----- | 2,883 | 1.34 | 3,863 | 2,883 | 1.34 | 3,863 |
| Colts----- | 206 | .15 | 31 | 206 | .15 | 31 |
| Hens and pullets----- | 340,068 | .0577 | 19,622 | 347,000 | .0577 | 20,022 |
| Hogs----- | 55,305 | --- | --- | 57,000 | --- | --- |
| Raised or fed during year: | | | | | | |
| Broilers----- | 1,980,000 | .008 | 15,840 | 2,080,000 | .008 | 16,640 |
| Chickens----- | 346,026 | .018 | 6,228 | 360,000 | .018 | 6,480 |
| Turkeys, large----- | 94,323 | .07 | 6,603 | 83,000 | .07 | 5,810 |
| Turkeys, small----- | 12,549 | .03 | 376 | 12,000 | .03 | 360 |
| Goats clipped----- | 4,117 | --- | 64,866 | 4,200 | --- | --- |
| Hogs fed ^{3/} ----- | 91,104 | .712 | --- | 93,791 | .712 | 66,779 |
| Total animal units----- | --- | --- | 167,285 | --- | --- | 169,896 |

^{1/} Data for 48 States only.

^{2/} Based on conditions in June 1961.

^{3/} Calculated as follows:

| Feeding year 1960 | | Feeding year 1961 | |
|---|--------|---|--------|
| Spring pigs 1960 (20 percent of 47,191) | 9,438 | Spring pigs 1961 (20 percent of 50,456) | 10,091 |
| Fall pigs 1960 (100 percent of 41,301) | 41,301 | Fall pigs 1961 (100 percent of 42,500) | 42,500 |
| Spring pigs 1961 (80 percent of 50,456) | 40,365 | Spring pigs 1962 (80 percent of 51,500) | 41,200 |
| Total pigs fed | 91,104 | Total pigs fed | 93,791 |

Table 9. - Feed fed per animal unit, United States, 1926-60^{1/}

| Year beginning Oct. 1 | Concentrates | Hay | Year beginning Oct. 1 | Concentrates | Hay |
|--------------------------|--------------|-------------|--------------------------|--------------|-------------|
| | <u>Tons</u> | <u>Tons</u> | | <u>Tons</u> | <u>Tons</u> |
| 1926----- | 0.68 | 0.96 | 1944----- | 0.76 | 1.05 |
| 1927----- | .70 | 1.17 | 1945----- | .80 | 1.13 |
| 1928----- | .70 | 1.11 | 1946----- | .78 | 1.18 |
| 1929----- | .68 | 1.07 | 1947----- | .73 | 1.21 |
| 1930----- | .63 | .92 | 1948----- | .76 | 1.17 |
| 1931----- | .66 | .88 | 1949----- | .78 | 1.18 |
| 1932----- | .70 | .92 | 1950----- | .78 | 1.21 |
| 1933----- | .60 | .85 | 1951----- | .80 | 1.22 |
| 1934----- | .54 | .73 | 1952----- | .78 | 1.13 |
| 1935----- | .68 | .96 | 1953----- | .80 | 1.12 |
| 1936----- | .55 | .94 | 1954----- | .78 | 1.12 |
| 1937----- | .70 | .94 | 1955----- | .80 | 1.17 |
| 1938----- | .67 | 1.08 | 1956----- | .82 | 1.17 |
| 1939----- | .65 | 1.09 | 1957----- | .88 | 1.24 |
| 1940----- | .71 | 1.08 | 1958----- | .92 | 1.32 |
| 1941----- | .72 | 1.07 | 1959----- | .96 | 1.29 |
| 1942----- | .75 | 1.11 | 1960 ^{2/} ----- | .98 | 1.20 |
| 1943----- | .73 | 1.09 | | | |

^{1/} Concentrates per grain-consuming animal unit and hay per roughage-consuming animal unit. Data for 48 States only.

^{2/} Preliminary estimate.

Table 10. - Feed fed per head, by kinds of livestock, base periods, 1940-45 and 1955-59^{1/}

| Type of livestock | Concentrates fed per head | | Roughages fed per head ^{2/} | | All feed fed per head ^{2/} | |
|------------------------------------|---------------------------|---------------|--------------------------------------|---------------|-------------------------------------|---------------|
| | 1940-45 | 1955-59 | 1940-45 | 1955-59 | 1940-45 | 1955-59 |
| | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> |
| On farms, Jan. 1: | | | | | | |
| Cattle: | | | | | | |
| Milk cows----- | 1,373 | 2,016 | 3,563 | 4,327 | 4,981 | 6,388 |
| Other dairy cattle----- | 585 | 524 | 2,755 | 3,507 | 3,423 | 4,201 |
| Beef cows----- | 173 | 213 | 3,207 | 3,247 | 3,404 | 3,484 |
| Cattle on feed ^{3/} ----- | 2,864 | 3,443 | 3,969 | 2,091 | 4,812 | 5,727 |
| Other beef cattle----- | 173 | 213 | 3,207 | 3,247 | 3,404 | 3,484 |
| Stock sheep----- | 45 | 35 | 752 | 644 | 799 | 779 |
| Sheep and lambs on feed----- | | 150 | | 124 | | 289 |
| Goats clipped----- | --- | --- | 770 | 734 | 770 | 734 |
| Hogs----- | --- | --- | 84 | 56 | --- | --- |
| Horses and mules----- | 1,709 | 1,111 | 3,478 | 3,361 | 5,130 | 4,473 |
| Colts----- | 366 | 194 | 3,098 | 3,139 | 3,451 | 3,281 |
| Hens and pullets----- | 67 | 90 | 1.6 | 1.5 | 71 | 78 |
| Raised or fed during year: | | | | | | |
| Broilers----- | 12.1 | 8.5 | --- | --- | 13.9 | 10.4 |
| Chickens raised----- | 22 | 24 | 1.3 | 1.2 | 24 | 27 |
| Turkeys, heavy----- | 96 | 84 | 6 | 4.5 | 112 | 92 |
| Turkeys, light----- | | 35 | | 4.5 | | |
| Hogs fed in year----- | 1,037 | 1,018 | --- | --- | 1,176 | 1,145 |

^{1/} Basic data for tables 10 - 13 are from U. S. Dept. Agr. Prod. Res. Rpt. 21, with revisions and years subsequent to 1956 from unpublished data, Farm Economics Division, Economic Research Service, U. S. Department of Agriculture.

^{2/} In feed units. Includes pasture.

^{3/} Based on number on feed Jan. 1.

Table 11. - Factors used to calculate animal units, base periods, 1940-45 and 1955-59

| Type of livestock | Factors based on - | | | | | |
|----------------------------|--------------------|---------|------------------------|---------|------------------------|---------|
| | Concentrates | | Roughage ^{1/} | | All feed ^{1/} | |
| | 1940-45 | 1955-59 | 1940-45 | 1955-59 | 1940-45 | 1955-59 |
| On farms, Jan. 1: | | | | | | |
| Cattle: | | | | | | |
| Milk cows----- | 1.0200 | 1.0000 | 0.3900 | 1.0000 | 1.0000 | 1.0000 |
| Other dairy cattle----- | .3440 | .2599 | .7820 | .8104 | .6300 | .6576 |
| Beef cows----- | .1670 | .1056 | .9750 | .7504 | .7600 | .5453 |
| Cattle on feed ----- | 2.0000 | 1.7079 | .4830 | .4832 | .8600 | .8965 |
| Other beef cattle----- | .1540 | .1056 | .8440 | .7504 | .6100 | .5453 |
| Stock sheep ----- | .0220 | .0173 | .2000 | .1488 | .1500 | .1219 |
| Sheep on feed----- | .1200 | .0744 | .0580 | .0286 | .0740 | .0452 |
| Goats clipped----- | --- | --- | .2000 | .1696 | .1500 | .1149 |
| Hogs----- | --- | --- | .0100 | .0129 | --- | --- |
| Horses and mules----- | 1.3400 | .5510 | .7370 | .7767 | .8800 | .7002 |
| Colts ----- | .1500 | .0818 | 1.0000 | .7254 | .6000 | .5136 |
| Hens and pullets ----- | .0577 | .0446 | .0012 | .0003 | .0154 | .0153 |
| Raised or fed during year: | | | | | | |
| Broilers ----- | .0080 | .0042 | --- | --- | .0020 | .0016 |
| Chickens raised ----- | .0180 | .0119 | --- | .0002 | .0043 | .0042 |
| Turkeys, heavy ----- | .0700 | .0416 | .0024 | .0010 | .0200 | .0144 |
| Turkeys, light----- | .0300 | .0173 | .0024 | .0010 | .0200 | .0144 |
| Hogs fed in year ----- | .7120 | .5049 | --- | --- | .1950 | .1792 |

^{1/} Includes pasture.

Table 12. - Feed fed per animal unit, 1950-60^{1/}

| Year beginning Oct. 1 | Concentrates fed per animal unit | | Hay fed per animal unit | |
|--------------------------|-------------------------------------|------------------------|----------------------------|------------------------|
| | Base period 1940-45 | Base period 1955-59 | Base period 1940-45 | Base period 1955-59 |
| | <u>Tons</u> | <u>Tons</u> | <u>Tons</u> | <u>Tons</u> |
| 1950----- | 0.78 | 1.05 | 1.21 | 1.32 |
| 1951----- | .80 | 1.07 | 1.22 | 1.34 |
| 1952----- | .78 | 1.05 | 1.13 | 1.25 |
| 1953----- | .80 | 1.09 | 1.12 | 1.25 |
| 1954----- | .78 | 1.06 | 1.12 | 1.25 |
| 1955----- | .80 | 1.08 | 1.17 | 1.31 |
| 1956----- | .82 | 1.10 | 1.17 | 1.30 |
| 1957----- | .88 | 1.19 | 1.24 | 1.39 |
| 1958----- | .92 | 1.25 | 1.32 | 1.49 |
| 1959----- | .96 | 1.31 | 1.29 | 1.45 |
| 1960----- | .98 | 1.35 | 1.20 | 1.36 |

^{1/} Concentrates per grain-consuming animal unit and hay per roughage-consuming animal unit.

Table 13. - High protein-consuming animal units, 1940-61^{1/}

| Year beginning Oct. 1 | Dairy cattle | Beef cattle | Sheep | Poultry | Hogs | Total |
|--------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|
| | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units | 1,000 units |
| 1940 | 28,858 | 13,024 | 3,127 | 55,804 | 24,170 | 123,722 |
| 1941 | 29,873 | 13,662 | 3,276 | 62,624 | 27,417 | 135,528 |
| 1942 | 30,858 | 14,716 | 3,242 | 72,238 | 33,630 | 153,282 |
| 1943 | 31,554 | 14,240 | 3,000 | 71,452 | 34,210 | 153,111 |
| 1944 | 31,503 | 15,153 | 2,878 | 69,758 | 25,783 | 143,669 |
| 1945 | 29,949 | 14,609 | 2,698 | 65,208 | 26,300 | 137,416 |
| 1946 | 30,106 | 14,733 | 2,338 | 60,766 | 25,058 | 131,673 |
| 1947 | 28,900 | 13,442 | 2,090 | 57,370 | 24,979 | 125,573 |
| 1948 | 28,023 | 15,024 | 1,834 | 59,822 | 26,367 | 129,761 |
| 1949 | 27,990 | 14,847 | 1,738 | 61,194 | 28,399 | 132,881 |
| 1950 | 27,920 | 15,724 | 1,735 | 61,078 | 29,995 | 135,098 |
| 1951 | 27,875 | 17,459 | 1,879 | 60,704 | 29,535 | 135,953 |
| 1952 | 27,014 | 19,877 | 1,913 | 58,432 | 25,498 | 131,045 |
| 1953 | 27,324 | 19,228 | 1,886 | 59,442 | 24,591 | 130,835 |
| 1954 | 26,776 | 20,355 | 1,920 | 59,682 | 27,247 | 134,255 |
| 1955 | 26,065 | 20,704 | 1,877 | 60,602 | 28,195 | 135,693 |
| 1956 | 25,387 | 20,818 | 1,862 | 60,692 | 26,696 | 133,699 |
| 1957 | 24,242 | 20,310 | 1,850 | 61,840 | 26,448 | 132,974 |
| 1958 | 23,066 | 22,248 | 1,970 | 62,762 | 29,383 | 137,554 |
| 1959 | 22,296 | 24,764 | 1,968 | 60,866 | 28,261 | 136,086 |
| 1960 | 22,058 | 25,779 | 1,951 | 62,732 | 27,329 | 137,704 |
| 1961 | 21,881 | 26,026 | 1,956 | 63,560 | 28,916 | 140,174 |

^{1/} In this series, animal units of livestock on farms, excluding horses and mules, were adjusted in accordance with the ratio of high-protein feeds consumed to all concentrates consumed. The following factors were applied to grain-consuming animal units to calculate the high protein feed-consuming animal units: dairy cattle, 1.0; beef cattle, 1.3; sheep, 2.4; poultry, 2.0; and hogs, 0.6. This table is based on average feed-livestock relationships during the period 1955-59.



Growth Through Agricultural Progress

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