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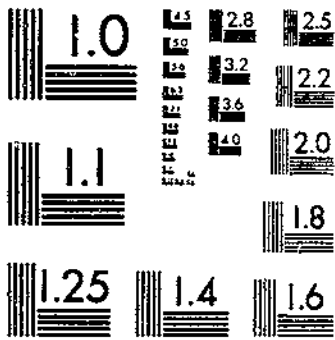
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ANIMAL UNITS OF LIVESTOCK FED ANNUALLY 1909 TO 1961

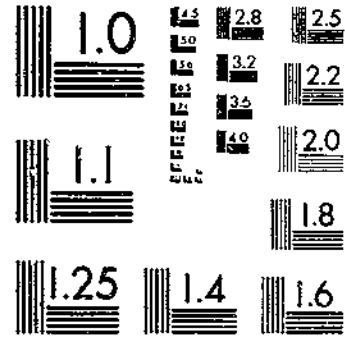
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DEPARTMENT OF AGRICULTURE

ANIMAL UNITS

of livestock fed annually
1909 to 1961

DEPOSITION

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U. S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

Statistical Bulletin No. 324

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Washington, D. C.

February 1963

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ANIMAL UNITS OF LIVESTOCK FED ANNUALLY
1909 to 1961 1/

By Earl F. Hodges, Agricultural Economist
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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 the relative abundance or scarcity of feed available per animal unit. In this report, animal units are presented in four series: (1) grain-consuming; (2) roughage-consuming; (3) grain-and-roughage-consuming; and (4) high protein-consuming. (See tables 1 - 9 and figures 1 - 3.) These four series are based on feed consumption in terms of (1) concentrates, (2) roughages including pasture, (3) all feed including pasture, and (4) high-protein feeds.

An animal unit is the equivalent of one milk cow in terms of feed consumed. Each kind of livestock, including 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. For the first three animal unit series, the base period 1940-45 is used in computing ratios, or factors, for all livestock except broilers; for broilers the period 1950-53 is used. 2/ For the high-protein-consuming animal unit series, average feed relationships during the period 1955-59 are used to compute ratios or factors. This series is developed at the national level only, as State feeding rates are not available.

Livestock numbers used in calculating animal units in the four series take into account all livestock and poultry fed on farms during the feeding year beginning October 1. 3/ They are based on numbers of livestock and poultry of

1/ This publication brings to date the series on animal units fed annually reported in Animal Units of Livestock Fed Annually, 1909 to 1960, USDA Statist. Bul. 301, by E. F. Hodges.

2/ Feed consumption data for the various classes of livestock for the base periods are available in Consumption of Feed by Livestock, 1909-56, USDA Prod. Res. Rpt. 21, Nov. 1958, by R. D. Jennings, and from unpublished data in the Farm Prod. Econ. Div.

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

different kinds on farms January 1 of the feeding year and on numbers raised during the year, as reported by USDA. Animal units in the first three series 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. 4/

Calculations for each type of animal unit are made separately. 5/ To determine grain-consuming animal units, livestock 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 are multiplied by a third set of weights representing consumption of feed of all kinds, including pasture.

Grain-Consuming Animal Units

Grain-consuming animal units increased from 153 million in 1947 to 168 million in 1950. In the next 8 years the number varied from a low of 157 million in 1953 to a high of 168 million in 1958, and remained at that general level through 1960 (table 1). These changes reflect mainly the variations in animal units from hogs and beef cattle.

Animal units from beef cattle and poultry increased by about 31 and 12 percent, respectively, during the fifties. Units from hogs decreased about 4 percent. Units from horses and mules declined from 7 to 12 percent a year from 1950 to 1958; in 1959 the decline was less than 5 percent. After 1960, official USDA estimates of numbers of horses and mules were discontinued. The number is assumed to have been the same in 1961 as in 1960.

At 168.6 million, the number of grain-consuming animal units in the feeding year 1961-62 was about 1.1 million higher than in 1960, mainly because of an increase in numbers from beef cattle and hogs. The fall pig crop of 1961 was 4 percent larger than that of 1960, and the spring crop of 1962 was 2 percent smaller than that of 1961, resulting in a net increase of about 1.5 million units from hogs. Units from chickens raised in 1961 decreased about 9 percent from 1960. Units from hens and pullets on hand on January 1, 1962, were up 1 percent from a year earlier. Slightly more units came from broilers and about 13 percent fewer from turkeys in 1961 than in 1960.

4/ Factors used in each State are given in Animal Units of Livestock Fed Annually, 1909 to 1955, USDA Statis. Bul. 194, by R. D. Jennings.

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

During the 10 years, 1952 to 1961, the composition of the livestock population changed in many ways (table 2). Numbers of grain-consuming animal units declined or increased as follows:

Animal units	Increase	Decrease
	<u>Percent</u>	<u>Percent</u>
Milk cows-----	---	17
Hens and pullets-----	---	8
Chickens raised-----	---	44
Sheep-----	---	2
Horses and mules-----	---	47
Cattle on feed-----	39	---
Other beef cattle-----	21	---
Broilers-----	111	---
Turkeys-----	72	---

The total number was about 6 percent higher in 1961 than 10 years earlier. During the 10 years, the number ranged from 156.8 million in 1953 to 168.6 million in 1961, a change of nearly 8 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 1961 was about 2 percent higher than in 1960, mainly because of an increase of nearly 2.0 million units from beef cattle. The number from 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 97.2 million in 1961 (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 1961. The increase in units from hogs, the heavy grain consumers, was exceeded by the increase in units from beef cattle, the heavy roughage consumers (table 4). The units from hogs increased about 2

percent and from cattle on feed and other beef cattle about 4 percent and 3 percent, respectively. Units from poultry decreased about 3 percent, and from milk cows about 1 percent.

The high point in this series was reached in 1943, with more than 120 million animal units. Other high points or crests occurred in 1918, 1933, and 1961. The number of animal units in 1961 was about 6 percent less than the record number in 1943. During the 10-year period 1952-61, the number increased about 4 percent.

Projecting Animal Unit Numbers for Future Years

Grain-consuming animal units constitute a basic part of the livestock-feed balance. The data in this series are used by other agencies of USDA 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. 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 use in calculating how large the surplus may be.

Calculations are made at the national level for a year or more in advance, before data on livestock by States are available. In table 10, the method of estimating is illustrated by calculating grain-consuming animal units of livestock for the feeding years 1961 and 1962 on the basis of national livestock numbers reported in 1962 and estimated for 1963. The number calculated on this basis for 1961 differs only slightly from the total number determined by States for that year (table 5). The small difference indicates the usability of the method for general projections at the national level. According to the numbers used in these projections, units of grain-consuming livestock may increase to about 172.5 million in the feeding year 1962.

Factors have been calculated also for the purpose of projecting roughage-consuming and grain-and-roughage-consuming animal units at the national level. 6/

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 USDA technicians.

6/ Jennings, R. D., Animal Units of Livestock Fed Annually, 1909 to 1956. USDA Statis. Bul. 215, 1957.

Concentrates Fed Per Grain-Consuming Animal Unit

Concentrates fed per grain-consuming animal unit increased steadily from 0.77 ton in 1956-57 to 0.92 ton in 1961-62 (table 8). Several influences contributed to this increase. High prices for feeder and slaughter livestock compared to feed prices made it more economical to feed livestock to heavier weights even though some feed efficiency is sacrificed at the heavier weight levels. Slaughter steers (all grades) at Chicago averaged 36 pounds heavier in 1961 than in 1957. Barrows and gilts in 1961 averaged 6 pounds more than in 1957. 7/

The replacement of horses and mules in the livestock inventory by other classes of livestock up to the midfifties concealed much of the expansion of the feed needed by beef cattle, dairy cattle, broilers, and turkeys. Since the decline in number of horses ceased at that time, further increases in high-grain-consuming livestock would increase the total grain consumption and the grain consumption per animal unit.

The increase in size of most livestock enterprises may also be a factor in the increased feeding rate per animal unit. This is particularly true in the dairy enterprises, where the size of herds is increasing markedly. Here, under better management and with more resources available, milk cows are being fed at much higher rates. (This increased feeding of milk cows greatly increases the average amount fed per animal unit.) The same principle prevails in other livestock enterprises where, as management improves, livestock is fed more in accordance with its ability to consume feed.

Another factor of importance is the increase of confinement feeding and raising of livestock. This involves the increased use of harvested feeds and a consequent reduction in feed coming from pastures. The feeding of commercial formula feeds has increased about 45 percent since the midforties. Formula feeds mixed commercially account for about one-fourth of all concentrates fed.

High-Protein-Consuming Animal Units

For the purpose of estimating or projecting the consumption of the high-protein feeds by livestock, a variation of the grain-consuming animal unit series--the high-protein-consuming animal unit series--has been helpful. In the latter series as presently constructed, the grain-consuming animal units (including broilers) are estimated on the basis of average feed relationships during the period 1955-59, and are weighted by the amount of high-protein feeds consumed by the various classes of livestock divided by the amount consumed by dairy cattle. 8/

7/ Livestock Div., U. S. Agr. Market Serv., Market News, Livestock-Meat-Wool; Weekly Summary and Statistics; V. 30, No. 47, Nov. 20, 1962, p. 894.

8/ Livestock in cities and horses and mules have been omitted in this series. A more detailed description of the calculations involved in the high-protein-consuming animal unit series is given in USDA Statis. Bul. 301.

This series is based on high-protein feeds consumed only (oilseed meals, animal proteins, and grain proteins). No consideration is given to protein contained in other by-product feeds, feed grains, harvested forages, or pasture. In areas where large amounts of alfalfa hay or meal are fed, the factors may need to be modified.

The amounts of high-protein feeds available for feeding annually from 1940 to 1962 and the amounts fed per animal unit are given in table 10. The amount fed per unit has increased each year with few exceptions, and since the early forties has nearly doubled. The total number of units has remained about the same during the 23-year period, but the production of the high-protein feeds, principally soybean meal, has doubled.

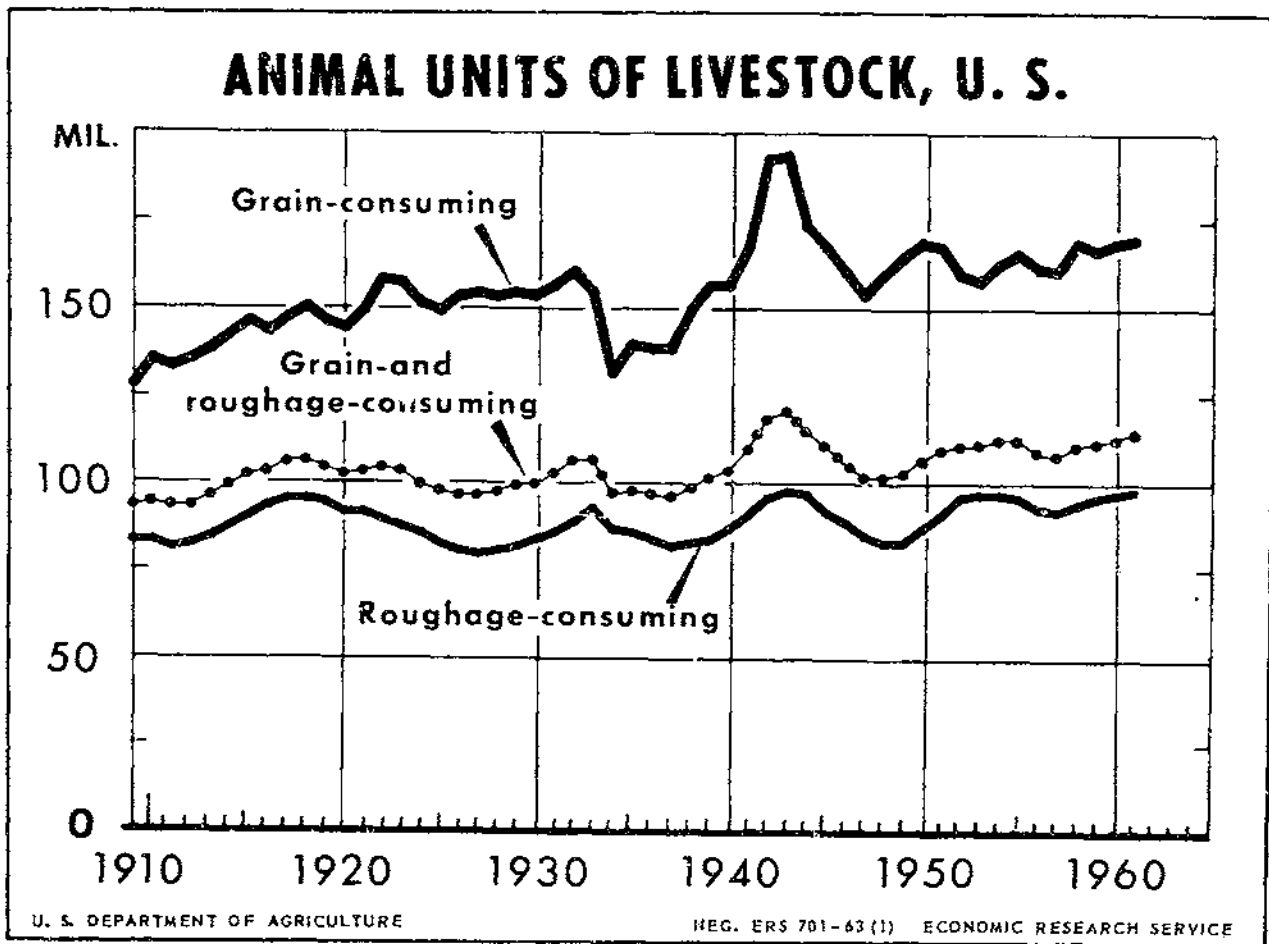


Figure 1

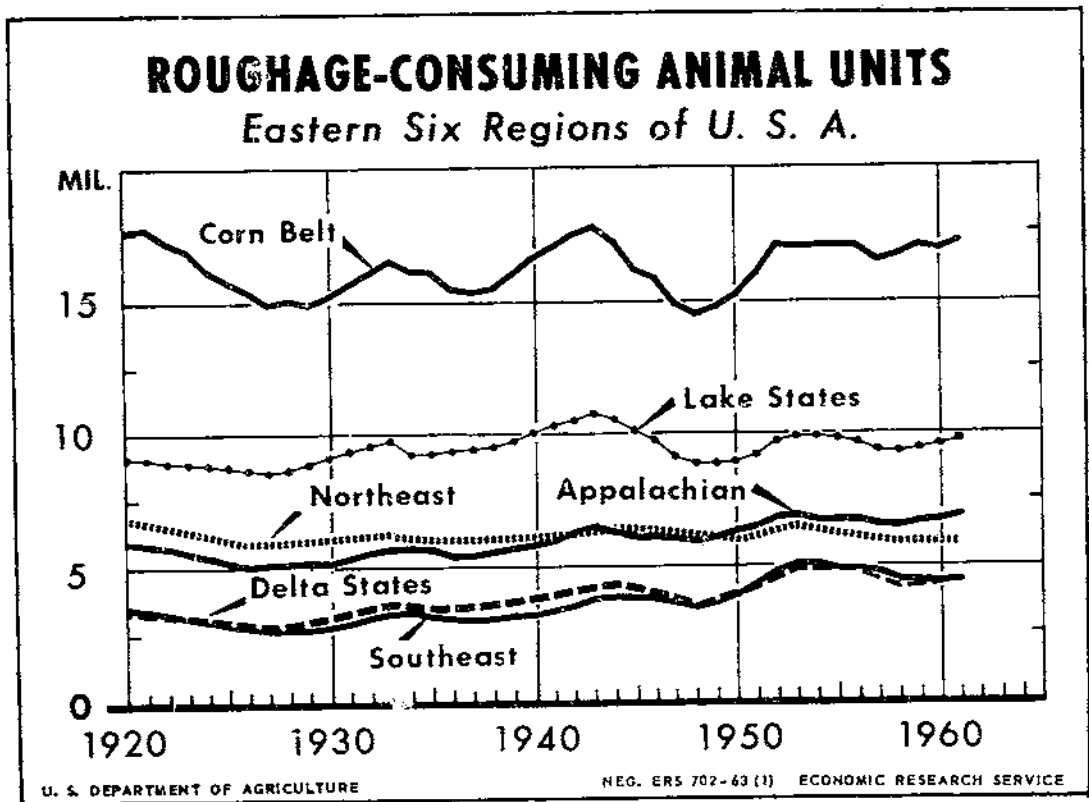


Figure 2

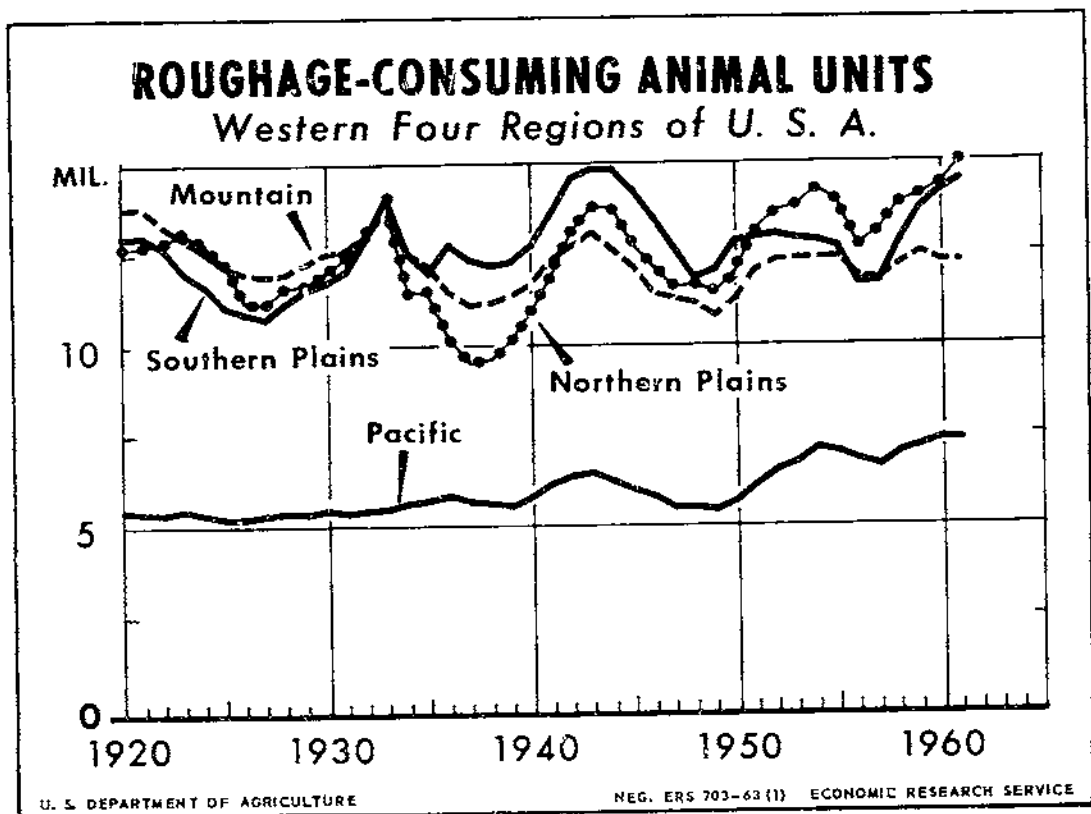


Figure 3

Table 1.--Animal units of livestock fed annually, by kinds, United States, 1909-61 ^{1/}

Year beginning Oct. 1	Grain-consuming 1,000 units	Roughage-consuming 1,000 units	Grain-and-roughage- consuming 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	159,736	88,206	105,614
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	82,391	102,290
1950	168,104	85,592	105,631
1951	167,331	90,175	108,595
1952	158,936	94,567	109,627
1953	156,853	95,664	110,024
1954	161,595	96,157	111,678
1955	165,264	95,232	111,888
1956	160,927	91,944	108,446
1957	159,905	90,537	107,050
1958	167,728	92,516	110,478
1959 ^{2/}	165,704	94,750	111,283
1960 ^{2/}	167,557	95,577	112,359
1961 ^{3/}	168,634	97,175	113,693

^{1/} See figure 1. Data not available for Alaska and Hawaii.

^{2/} Revised.

^{3/} Preliminary.

Table 2.—Grain-consuming animal units fed annually, by kind of livestock, United States, 1952-61 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
1952	23,968	4,246	11,885	8,319	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	57,819	21,359	9,831	8,381	4,086	6,157	156,853
1954	23,918	4,093	11,547	8,892	1,139	64,095	21,264	8,363	8,732	4,041	5,511	161,595
1955	23,387	3,899	11,546	9,009	1,110	66,133	20,858	8,558	10,750	4,962	5,052	165,244
1956	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	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	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	15,009	9,586	1,155	66,364	20,171	5,891	14,360	5,677	3,691	165,704
1960 2/	19,936	3,700	15,893	9,683	1,158	64,565	19,634	6,105	15,941	7,251	3,691	167,557
1961 3/	19,806	3,704	16,511	10,049	1,107	66,100	19,834	5,560	15,999	6,273	3,691	168,634

1/ Data not available for Alaska and Hawaii.

2/ Revised.

3/ Preliminary.

Table 3.—Roughage-consuming animal units fed annually, by kind of livestock, United States, 1952-61 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
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	95,464
1954	23,248	9,289	2,809	50,168	6,280	1,130	3,233	96,157
1955	22,740	8,834	2,868	50,336	6,258	1,194	2,974	95,232
1956	22,187	8,574	2,971	48,131	6,163	1,179	2,739	91,944
1957	21,165	8,372	2,850	48,051	6,352	1,153	2,594	90,537
1958	20,089	8,280	3,226	50,600	6,632	1,242	2,447	92,316
1959 2/	19,528	8,343	3,599	52,863	6,797	1,234	2,386	94,750
1960 2/	19,367	8,306	3,828	53,677	6,766	1,247	2,386	95,577
1961 3/	19,245	8,299	3,957	55,539	6,523	1,226	2,386	97,175

1/ Data not available for Alaska and Hawaii.

2/ Revised.

3/ Preliminary.

Table 4.—Grain-and-roughage-consuming animal units fed annually, by kind of livestock, United States, 1952-61 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
1952	23,975	7,805	4,989	35,460	4,818	16,365	11,521	4,694	109,627
1953	24,353	7,754	4,609	36,718	4,780	15,833	11,815	4,163	110,024
1954	23,954	7,510	4,991	37,595	4,860	17,558	11,476	3,734	111,678
1955	23,446	7,139	5,073	37,708	4,829	18,146	12,117	3,430	111,888
1956	22,879	6,931	5,244	36,103	4,756	17,174	12,220	3,139	108,446
1957	21,837	6,763	5,070	36,005	4,890	17,042	12,491	2,953	107,030
1958	20,734	6,692	5,647	37,853	5,111	18,950	12,746	2,745	110,475
1959 2/	20,161	6,738	6,347	39,544	5,228	18,218	12,392	2,655	111,383
1960 2/	20,007	6,713	6,737	40,165	5,213	17,715	13,154	2,655	112,359
1961 3/	19,877	6,701	6,975	41,564	5,021	18,123	12,777	2,655	113,693

1/ Data not available for Alaska and Hawaii.

2/ Revised.

3/ Preliminary.

Table 5.—Grain-consuming animal units fed annually, by States, 1952-61

State	Year beginning Oct. 1									
	1952	1953	1954	1955	1956	1957	1958	1959 ^{1/}	1960 ^{1/}	1961 ^{2/}
	units	units	units	units	units	units	units	units	units	units
Northeast:										
Maine	859	892	907	961	1,021	1,074	1,089	1,050	1,082	1,085
New Hampshire	464	481	456	442	406	384	358	333	328	322
Vermont	568	587	577	566	538	502	489	476	477	480
Massachusetts	899	902	885	864	807	785	733	665	637	591
Rhode Island	98	97	94	94	89	88	85	82	79	77
Connecticut	823	820	815	828	789	779	748	683	665	647
New York	3,807	3,743	3,728	3,714	3,583	3,460	3,346	3,216	3,184	3,148
New Jersey	1,740	1,732	1,746	1,805	1,725	1,634	1,545	1,378	1,287	1,236
Pennsylvania	5,211	5,134	5,030	5,115	4,970	4,809	4,741	4,663	4,609	4,524
Delaware	762	787	764	882	925	932	848	891	879	881
Maryland	1,470	1,412	1,385	1,426	1,439	1,513	1,538	1,560	1,566	1,637
Lake States:										
Michigan	3,491	3,489	3,435	3,439	3,244	2,990	3,066	2,979	2,874	2,870
Wisconsin	7,030	7,226	7,456	7,369	7,167	7,281	7,502	7,195	7,307	7,238
Minnesota	9,212	9,434	9,945	9,910	9,474	9,529	10,321	9,998	10,310	9,925
Corn Belt:										
Ohio	7,045	6,966	7,130	7,337	7,016	6,673	6,770	6,586	6,528	6,414
Indiana	8,688	8,689	8,878	9,398	9,167	8,824	9,102	8,754	8,833	8,849
Illinois	12,875	12,802	13,393	13,891	13,893	13,622	14,299	13,856	13,895	14,173
Iowa	23,027	23,359	23,784	23,663	22,674	22,755	24,709	23,940	23,658	23,786
Missouri	7,995	7,924	8,060	8,657	8,351	8,080	8,557	8,265	8,392	8,347
Northern Plains:										
North Dakota	1,576	1,586	1,657	1,727	1,590	1,583	1,658	1,530	1,549	1,493
South Dakota	3,693	3,691	4,031	3,981	3,675	3,911	4,373	4,009	3,997	4,223
Nebraska	7,744	7,342	7,843	7,309	6,699	6,812	7,704	7,480	7,670	8,288
Kansas	3,587	3,436	3,461	3,376	3,050	3,130	3,436	3,407	3,613	3,730
Appalachian:										
Virginia	2,730	2,633	2,561	2,665	2,667	2,585	2,524	2,507	2,476	2,482
West Virginia	963	970	923	941	864	817	796	754	710	701
North Carolina	3,588	3,590	3,775	3,886	4,080	4,370	4,480	4,599	4,739	4,768
Kentucky	2,886	2,822	2,917	3,107	3,138	3,056	3,091	3,158	3,166	3,192
Tennessee	2,951	2,841	2,919	3,050	3,064	3,001	3,081	3,154	3,054	3,074
Southeast:										
South Carolina	1,534	1,395	1,345	1,398	1,415	1,367	1,368	1,385	1,368	1,328
Georgia	3,781	3,932	4,205	4,595	4,920	5,178	5,411	5,615	5,737	5,846
Florida	1,219	1,183	1,154	1,202	1,252	1,246	1,292	1,333	1,382	1,432
Alabama	2,565	2,652	2,764	2,971	3,031	3,224	3,509	3,683	3,765	3,828
Delta States:										
Mississippi	2,390	2,312	2,275	2,459	2,491	2,541	2,673	2,810	2,893	2,908
Arkansas	2,214	2,121	2,032	2,298	2,354	2,433	2,668	2,862	3,322	3,276
Louisiana	1,314	1,215	1,200	1,264	1,248	1,132	1,073	1,093	1,070	1,040
Southern Plains:										
Oklahoma	1,982	1,904	1,882	1,888	1,726	1,559	1,685	1,636	1,611	1,609
Texas	5,421	5,045	5,172	5,453	5,183	5,075	5,450	5,406	5,484	5,556
Mountain:										
Montana	657	651	664	680	620	620	644	641	650	634
Idaho	646	635	660	671	641	636	691	737	727	693
Wyoming	314	298	280	275	276	278	293	304	284	280
Colorado	1,179	1,086	1,104	1,111	1,091	1,082	1,170	1,406	1,410	1,367
New Mexico	261	246	249	265	251	239	261	280	274	286
Arizona	204	215	254	286	296	260	305	425	452	480
Utah	527	572	567	570	568	570	546	577	653	658
Nevada	66	67	68	64	64	63	66	70	70	65
Pacific:										
Washington	1,057	1,074	1,110	1,121	1,079	1,124	1,178	1,205	1,214	1,236
Oregon	1,007	984	1,032	1,042	995	1,005	1,032	1,042	1,039	1,019
California	4,806	4,879	5,023	5,257	5,321	5,274	5,424	6,026	6,570	6,912
48 States ^{3/}	158,936	156,853	161,595	165,264	160,927	159,905	167,728	165,704	167,557	168,634

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

Table 6.--Roughage-consuming animal units fed annually, by States, 1952-61 1/

State	Year beginning Oct. 1									
	1952	1953	1954	1955	1956	1957	1958	1959 2/	1960 2/	1961 3/
	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	258	260	247	239	228	214	207	207	212	212
New Hampshire	128	130	124	124	118	109	105	103	103	104
Vermont	488	498	490	490	469	445	436	437	445	454
Massachusetts	211	210	205	196	187	173	164	163	168	165
Rhode Island	30	30	29	28	27	26	25	24	22	21
Connecticut	192	193	192	187	179	170	163	160	162	159
New York	2,402	2,422	2,400	2,362	2,313	2,240	2,190	2,199	2,220	2,234
New Jersey	261	264	262	261	254	243	236	228	225	222
Pennsylvania	1,832	1,870	1,863	1,831	1,821	1,771	1,767	1,818	1,846	1,860
Delaware	69	71	67	64	60	58	54	53	50	50
Maryland	481	509	488	467	458	449	447	441	451	435
Lake States:										
Michigan	1,857	1,840	1,807	1,751	1,673	1,572	1,557	1,559	1,564	1,588
Wisconsin	4,279	4,348	4,365	4,352	4,295	4,200	4,158	4,206	4,243	4,274
Minnesota	3,512	3,618	3,635	3,614	3,589	3,478	3,497	3,577	3,672	3,794
Corn Belt:										
Ohio	2,401	2,442	2,402	2,401	2,353	2,271	2,226	2,232	2,229	2,206
Indiana	2,029	2,066	2,043	2,069	2,046	1,939	1,900	1,948	1,979	1,980
Illinois	3,436	3,488	3,459	3,498	3,600	3,440	3,405	3,449	3,365	3,337
Iowa	5,262	5,321	5,308	5,251	5,207	5,217	5,437	5,621	5,445	5,602
Missouri	3,867	3,851	3,775	3,777	3,767	3,562	3,687	3,751	3,830	4,022
Northern Plains:										
North Dakota	1,772	1,938	1,998	2,071	1,966	1,864	1,826	1,783	1,875	1,892
South Dakota	3,070	3,225	3,325	3,367	3,201	3,246	3,362	3,345	3,397	3,484
Nebraska	4,594	4,419	4,690	4,412	4,423	4,203	4,500	4,665	4,712	4,899
Kansas	4,162	4,169	4,185	4,025	3,368	3,739	4,121	4,216	4,324	4,629
Appalachian:										
Virginia	1,529	1,535	1,500	1,496	1,472	1,430	1,433	1,461	1,477	1,479
West Virginia	704	699	680	673	648	611	594	604	598	590
North Carolina	949	981	961	929	897	871	843	839	833	837
Kentucky	1,954	1,949	1,901	1,978	2,040	2,017	2,037	2,094	2,138	2,240
Tennessee	1,654	1,692	1,624	1,608	1,611	1,575	1,556	1,623	1,658	1,712
Southeast:										
South Carolina	517	557	561	550	539	504	467	455	456	465
Georgia	1,217	1,304	1,346	1,282	1,252	1,220	1,140	1,139	1,146	1,171
Florida	1,517	1,527	1,525	1,494	1,540	1,556	1,426	1,400	1,367	1,361
Alabama	1,522	1,652	1,587	1,511	1,483	1,444	1,397	1,390	1,388	1,411
Delta States:										
Mississippi	1,762	1,885	1,987	1,998	1,997	1,893	1,704	1,714	1,708	1,707
Arkansas	1,336	1,386	1,299	1,304	1,310	1,218	1,140	1,120	1,135	1,120
Louisiana	1,520	1,594	1,560	1,570	1,575	1,481	1,375	1,413	1,456	1,453
Southern Plains:										
Oklahoma	3,058	3,146	3,084	2,972	2,799	2,759	3,057	3,209	3,342	3,469
Texas	9,907	9,707	9,713	9,661	8,830	8,921	9,706	10,446	10,774	10,964
Mountain:										
Montana	2,546	2,672	2,758	2,794	2,568	2,542	2,585	2,640	2,538	2,461
Idaho	1,474	1,533	1,611	1,619	1,585	1,578	1,641	1,658	1,637	1,601
Wyoming	1,617	1,603	1,504	1,527	1,550	1,565	1,602	1,633	1,547	1,564
Colorado	2,388	2,335	2,267	2,227	2,173	2,226	2,370	2,470	2,485	2,527
New Mexico	1,474	1,414	1,389	1,421	1,305	1,255	1,330	1,384	1,370	1,414
Arizona	1,032	1,007	1,038	1,055	999	972	992	1,055	1,078	1,075
Utah	1,057	1,056	1,064	1,024	998	983	995	1,001	974	966
Nevada	681	689	691	675	656	623	624	620	595	601
Pacific:										
Washington	1,162	1,209	1,256	1,246	1,128	1,127	1,180	1,224	1,274	1,326
Oregon	1,548	1,418	1,658	1,602	1,508	1,507	1,577	1,597	1,606	1,596
California	3,839	3,932	4,234	4,179	4,179	4,030	4,275	4,376	4,458	4,442
48 States 4/	94,567	95,664	96,157	95,232	91,944	90,537	92,516	94,750	95,577	97,175

1/ See figures 2 and 3.

2/ Revised.

3/ Preliminary.

4/ Data not available for Alaska and Hawaii.

Table 7.--Grain-and-roughage-consuming animal units fed annually, by States, 1952-61

State	Year beginning Oct. 1									
	1952	1953	1954	1955	1956	1957	1958	1959 1/2	1960 1/2	1961 2/2
	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	411	420	412	420	427	430	427	419	430	429
New Hampshire	214	218	210	206	193	179	169	161	163	161
Vermont	502	517	507	505	483	455	445	443	449	455
Massachusetts	396	394	385	374	353	337	316	298	295	279
Rhode Island	50	49	48	46	45	42	42	39	38	38
Connecticut	359	357	356	355	340	330	316	297	296	287
New York	2,798	2,796	2,778	2,747	2,678	2,594	2,524	2,496	2,506	2,508
New Jersey	641	638	644	655	630	599	572	524	499	483
Pennsylvania	2,725	2,743	2,716	2,713	2,672	2,591	2,569	2,593	2,599	2,586
Delaware	251	264	252	281	286	285	258	267	261	261
Maryland	745	753	731	722	720	729	734	733	742	741
Lake States:										
Michigan	2,319	2,308	2,274	2,234	2,124	1,977	1,981	1,961	1,937	1,954
Wisconsin	4,995	5,098	5,187	5,150	5,055	5,015	5,049	5,001	5,057	5,063
Minnesota	4,994	5,139	5,281	5,245	5,118	5,050	5,270	5,248	5,405	5,389
Corn Belt:										
Ohio	3,604	3,613	3,633	3,669	3,548	3,397	3,392	3,345	3,325	3,272
Indiana	3,771	3,787	3,820	3,968	3,885	3,718	3,772	3,694	3,732	3,733
Illinois	5,668	5,626	5,811	5,953	6,008	5,828	5,973	5,867	5,828	5,878
Iowa	9,489	9,247	9,730	9,653	9,371	9,390	10,044	9,945	9,765	9,891
Missouri	4,794	4,774	4,764	4,918	4,832	4,620	4,843	4,805	4,889	5,002
Northern Plains:										
North Dakota	1,666	1,785	1,847	1,921	1,810	1,741	1,734	1,673	1,745	1,742
South Dakota	3,133	3,246	3,402	3,422	3,230	3,316	3,514	3,415	3,451	3,573
Nebraska	5,134	4,925	5,234	4,905	4,561	4,633	5,055	5,108	5,188	5,468
Kansas	3,917	3,895	3,916	3,776	3,225	3,494	3,840	3,899	4,032	4,282
Appalachian:										
Virginia	1,812	1,789	1,753	1,778	1,770	1,720	1,714	1,709	1,716	1,704
West Virginia	756	755	731	730	689	651	632	626	612	604
North Carolina	1,679	1,703	1,746	1,746	1,775	1,831	1,844	1,865	1,888	1,902
Kentucky	2,193	2,177	2,171	2,279	2,331	2,292	2,325	2,377	2,415	2,496
Tennessee	2,033	2,032	2,012	2,040	2,050	2,008	2,026	2,091	2,094	2,138
Southeast:										
South Carolina	814	810	798	801	798	759	731	724	719	718
Georgia	1,952	2,063	2,171	2,219	2,278	2,318	2,319	2,366	2,397	2,443
Florida	1,361	1,371	1,361	1,354	1,400	1,406	1,334	1,324	1,308	1,321
Alabama	1,787	1,906	1,897	1,894	1,891	1,911	1,952	1,989	2,007	2,042
Delta States:										
Mississippi	1,959	2,038	2,112	2,164	2,174	2,109	2,002	2,048	2,063	2,070
Arkansas	1,598	1,609	1,522	1,598	1,610	1,566	1,566	1,599	1,728	1,708
Louisiana	1,564	1,597	1,568	1,596	1,591	1,488	1,391	1,420	1,448	1,439
Southern Plains:										
Oklahoma	2,638	2,676	2,625	2,549	2,386	2,310	2,541	2,629	2,709	2,794
Texas	8,311	8,061	8,108	8,143	7,504	7,532	8,177	8,668	8,901	9,049
Mountain:										
Montana	2,001	2,091	2,155	2,186	2,013	1,993	2,032	2,064	1,996	1,937
Idaho	1,241	1,285	1,349	1,354	1,312	1,300	1,366	1,378	1,362	1,327
Wyoming	1,252	1,240	1,166	1,177	1,197	1,207	1,240	1,263	1,197	1,206
Colorado	2,041	1,979	1,936	1,907	1,862	1,898	2,026	2,118	2,131	2,150
New Mexico	1,138	1,089	1,072	1,102	1,014	975	1,035	1,074	1,063	1,098
Arizona	829	815	856	879	847	817	844	907	933	939
Utah	930	942	948	917	897	886	886	893	896	889
Nevada	520	526	530	514	500	474	477	472	455	459
Pacific:										
Washington	1,127	1,164	1,203	1,199	1,105	1,115	1,167	1,204	1,244	1,286
Oregon	1,374	1,422	1,462	1,421	1,342	1,344	1,403	1,417	1,430	1,411
California	4,141	4,232	4,488	4,503	4,516	4,390	4,609	4,827	5,015	5,088
48 States 3/	109,627	110,024	111,678	111,888	108,446	107,050	110,478	111,283	112,359	113,693

1/ Revised.

2/ Preliminary.

3/ Data not available for Alaska and Hawaii.

Table 8.--Feed fed per animal unit, United States, 1940-1961 1/

Year beginning Oct. 1	Concentrates <u>2/</u>	Hay
	<u>Tons</u>	<u>Tons</u>
1940-----	0.68	1.08
1941-----	.70	1.07
1942-----	.73	1.11
1943-----	.71	1.09
1944-----	.73	1.05
1945-----	.78	1.13
1946-----	.75	1.18
1947-----	.70	1.21
1948-----	.73	1.17
1949-----	.75	1.18
1950-----	.75	1.21
1951-----	.77	1.22
1952-----	.74	1.13
1953-----	.76	1.12
1954-----	.74	1.12
1955-----	.76	1.17
1956-----	.77	1.16
1957-----	.83	1.23
1958-----	.85	1.30
1959-----	.90	1.26
1960-----	.91	1.17
1961 <u>3/</u> -----	.92	1.25

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

2/ Includes seeds, skim milk, and corn hogged off, but excludes corn in silage.

3/ Preliminary estimate.

Table 9.--High-protein-consuming animal units, high-protein feeds fed and amount fed per animal unit, 1940-62.

Year beginning Oct. 1	Dairy cattle	Beef cattle	Sheep	Poultry	Hogs	Total animal units	High-protein feeds available for feed	Quantity available per animal unit
	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 tons	Pounds
1940-----	28,554	13,186	3,127	55,804	24,170	124,841	6,912	111
1941-----	29,568	13,823	3,276	62,624	27,417	136,708	7,252	106
1942-----	30,543	14,882	3,242	72,238	33,630	154,535	8,508	110
1943-----	31,226	14,414	3,000	71,452	34,210	154,302	8,765	114
1944-----	31,169	15,328	2,878	69,758	25,783	144,916	8,718	120
1945-----	29,647	14,769	2,698	65,208	26,300	138,622	8,085	117
1946-----	28,919	14,889	2,338	60,766	25,058	131,970	8,271	125
1947-----	27,618	13,589	2,090	57,370	24,979	125,646	8,481	135
1948-----	26,827	15,162	1,834	59,822	26,367	130,012	9,602	148
1949-----	26,868	14,980	1,738	61,194	28,399	133,179	10,207	153
1950-----	26,643	15,854	1,735	61,078	29,995	135,305	11,332	168
1951-----	26,224	17,588	1,879	60,704	29,535	135,930	11,679	172
1952-----	26,764	20,010	1,913	58,432	25,498	132,617	11,503	173
1953-----	27,084	19,356	1,886	59,442	24,591	132,359	11,622	176
1954-----	26,550	20,479	1,920	57,626	27,247	133,822	11,639	174
1955-----	25,848	20,818	1,877	60,424	28,195	137,162	12,632	184
1956-----	25,175	20,930	1,862	60,646	26,696	135,309	13,268	196
1957-----	24,045	20,414	1,850	61,702	26,448	134,459	13,889	207
1958-----	22,881	22,346	1,970	62,762	29,383	139,342	15,174	218
1959-----	22,296	24,764	1,968	60,898	28,276	138,202	14,828	215
1960 <u>1/</u> -----	22,098	25,927	1,973	63,892	27,445	141,335	15,548	220
1961 <u>1/</u> -----	21,967	26,829	1,877	62,290	28,018	140,981	16,216	230
1962 <u>1/</u> -----	21,703	28,505	1,807	62,936	28,514	143,465	16,694	233

1/ Preliminary.

Table 10.--Calculation of grain-consuming animal units, United States, for the years 1961 and 1962, beginning Oct. 1, each year ^{1/}

Type of livestock	Feeding year 1961			Feeding year 1962 ^{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-----	19,215	1.02	19,599	19,000	1.02	19,380
Milk heifers and heifer calves-----	10,590	.344	3,643	10,400	.344	3,578
Beef cows-----	28,111	.167	4,695	29,200	.167	4,876
Cattle on feed-----	8,287	2.00	16,574	8,900	2.00	17,800
Other cattle-----	33,297	.154	5,128	34,500	.154	5,313
Stock sheep-----	27,281	.022	600	26,100	.022	574
Sheep and lambs on feed-----	4,165	.12	500	3,900	.12	468
Horses and mules:						
2 years and over-----	2,883	1.34	3,863	2,833	1.34	3,863
Colts-----	206	.15	31	206	.15	31
Hens and pullets-----	347,326	.0577	20,041	345,000	.0577	19,906
Hogs-----	56,982	---	---	58,200	---	---
Raised or fed during year:						
Broilers-----	2,010,000	.008	16,080	2,120,000	.008	16,960
Chickens-----	316,997	.018	5,706	330,000	.018	5,940
Turkeys, large-----	83,144	.07	5,820	84,500	.07	5,915
Turkeys, small-----	8,627	.03	259	9,500	.03	285
Goats clipped-----	4,150	---	65,851	4,200	---	---
Hogs fed ^{3/} -----	92,487	.712	---	94,974	.712	67,621
Total animal units-----	---	---	168,390	---	---	172,510

^{1/} Data not available for Alaska and Hawaii.
^{2/} Based on conditions in October 1962.
^{3/} Calculated as follows:

<u>Feeding year 1961</u>	
Spring pigs 1961 (20 percent of 50,411)	10,088
Fall pigs 1961 (100 percent of 42,701)	42,701
Spring pigs 1962 (80 percent of 49,622)	39,698
Total pigs fed	92,487

<u>Feeding year 1962</u>	
Spring pigs 1962 (20 percent of 49,622)	9,924
Fall pigs 1962 (100 percent of 43,450)	43,450
Spring pigs 1963 (80 percent of 52,000)	41,600
Total pigs fed	94,974

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