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Broiler Condemnations in the United States: Importance--Causes--Trends

University of Tennessee Agricultural Experiment Station

B. D. Raskopf

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Broiler Condemnations In the United States Importance--Causes--Trends

by B. D. Rasköpf



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SUMMARY

OF THE 16,712,122,000 broilers produced in the U. S. from 1959 through 1966, over 86% were slaughtered under Federal inspection and the balance under state, local, and plant inspection. Post mortem plant condemnations for all broilers produced during the 1959-66 period were estimated at 2.33%, or 389,392,000 birds representing a liveweight loss of 1,339 million pounds.

Condemnation percentages, by states, were quite erratic from 1959 to 1966. As an average for the 8 years, they were highest and above the U. S. average in the States of California, South Carolina, Missouri, Louisiana, Oklahoma, Delaware, Arkansas, Maryland, Georgia, and Pennsylvania.

From 1961 to 1966, for which detailed data on causes of condemnations were available, the condemnation rate in the U. S. averaged 2.41% of the 6-year production of 13,180,267,000 birds. Post mortem condemnations were estimated at 317,644,000 birds. Of all condemnations, 41.44% were for airsacculitis, 17.31% for leukosis, 17.17% for septicemia, 5.40% for synovitis, 4.62% for contamination, 3.19% for cadavers or misbleds, .95% for bruises, .41% for overscald, .33% for tumors, and 9.18% for all other or undefined causes. The proportions of condemned broilers for various causes showed wide variations among states.

For the U. S., an estimated 90.6% of the causes of condemnations were attributed to diseases or ailments and 9.4% to imperfect processing operations resulting in contamination, cadavers, bruises, overscald, decomposition, excessive feathers, broken bones, or unclean carcasses.

The rate of all broiler condemnations in most of the broiler-producing states, and for the U. S. as a whole, averaged higher during the winter or colder months, but generally the incidence by specific causes varied as follows:

Airsacculitis, higher from November through April

Septicemia, higher from October to March

Leukosis showed no definite seasonal pattern

Synovitis, higher from October to April

Contamination, higher from July to December

Cadavers, higher from October to February

Bruises, higher from November to February

Overscald, higher from June to September

Tumors, higher from August to January

Undefined causes, higher from December to April

The patterns of higher condemnation rates from late fall to early spring for diseases or ailments suggests that colder weather or adverse weather conditions during the year contributes to a higher incidence of these diseases. This appears to be true within each state, but the condemnation rates for various causes did not average any lower in the South than in other areas. From 1959

to 1966, the 10 southern states of Georgia, Arkansas, Alabama, North Carolina, Mississippi, Texas, Virginia, Tennessee, Louisiana, and South Carolina reported 71% of the U. S. broiler production, and had 72% of the condemned broilers, while the broiler condemnation rate averaged 2.37% or about the same as the U. S. average.

While the trend of total condemnation percentages—by causes, in most states, and the U. S. as a whole—has been upward during the years of this study, there were exceptions in various states by specified causes. The percentage trend from 1961 to 1966 was **downward for:**

- Airsaculitis in Alabama, Georgia, Tennessee, Kentucky, Indiana, and Maine
- Septicemia in Washington, Connecticut, Virginia, Idaho, Delaware, Kentucky, and Indiana
- Leukosis in Washington
- Synovitis since 1964 in all states except Connecticut and Indiana
- Contamination in California and Missouri
- Cadavers in Connecticut, South Carolina, Missouri, Tennessee, Kentucky, Wisconsin, and Idaho
- Bruises in Kentucky, California, and Maine
- Overscald in Idaho, Kentucky, California, Indiana, Virginia, Tennessee, and Connecticut
- Tumors in California, Louisiana, Oklahoma, Delaware, Idaho, Indiana, Maryland, and Virginia
- Undefined causes in all states except Connecticut, Texas, Louisiana, and Oklahoma

The relative importance of the causes and trends of condemnations varied widely by states and was attributed primarily to the following factors or conditions: 1) the wide variation from month to month in the volume of birds processed in each state; 2) sporadic outbreaks of diseases in particular areas; 3) seasonal changes in climatic conditions within states; 4) variations in processing machinery and methods of processing; 5) differences in methods of prevention and control of diseases and ailments in the various broiler production areas; and 6) the variation in Federal, state, and plant inspection programs among states.

Results of the study emphasize the importance of: 1) developing better methods of controlling diseases and ailments in the growing of broilers, particularly in the control of leukosis, airsaculitis, and septicemia, the three most important causes of condemnations; 2) improvements in methods of processing to reduce the rates of condemnation losses attributed to contamination, cadavers, bruises, overscald, decomposition, and other faulty processing; 3) continued development by the Federal, state, and plant inspection services of more precise and uniform methods of determining and describing the causes of condemnations; and 4) recognition of the fact that direct losses from condemned birds (liveweight losses and cost of processing) comprise only about one-fourth of the total losses associated with broiler condemnations.

Broiler Condemnations In the United States Importance--Causes--Trends

by

B. D. Raskopf*

INTRODUCTION

Broiler Inspection

CONGRESS PASSED the Poultry Products Inspection Act, August 28, 1957. The program became mandatory in the United States in 1959 for those plants shipping dressed poultry interstate. Of the 16.7 billion broilers produced in the United States from 1959 through 1966, nearly 14.5 billion (86.6%) were slaughtered in Federally-inspected plants (Appendix A). The remainder were subject to plant and state inspection programs and intended for intra-state consumption.

The primary purpose of broiler inspection is to assure consumers that poultry processed under the inspection program is wholesome, free from adulteration, truthfully labeled, and handled under prescribed conditions of sanitation and operating procedures.

Losses Associated with Broiler Condemnations

Losses from broiler condemnations have been of significant importance to the broiler industry in the United States. Post mortem condemnation losses in the U. S. ranged from 1.47% in 1959 to 3.40% in 1966 and averaged 2.33% for the 8 years (Table 1). For the period 1959 to 1966, the estimated losses in number of condemned birds in the U. S. amounted to 389,392,000 (Appendix A).

While the direct losses from condemned birds are high, they comprise only about one-fourth of the total losses associated with broiler condemnations. A previous study shows that condemnation losses in the broiler industry in the U. S. in 1966 were estimated at \$179 million or about 2¢ per pound. About 51% of these losses

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consisted of extra feed required, 26% liveweight value, 21% cost of medication, and 2% cost of processing condemned birds.¹

The economic importance of broiler condemnations is presented in this report.

Objectives and Scope of Study

This study was initiated because of complaints arising in various segments of the broiler industry due to the increasing incidence of, and wide variation in, condemnations at broiler processing plants throughout the United States. To combat and control the diseases, ailments, and conditions causing these condemnations, it was desirable to obtain detailed information on the importance, causes, and trends of these condemnations in the important broiler-producing states over a period of several years. The study was started in 1962 and was a contributing project to Regional Project SM-26.

The first part of this report deals with the proportion of all broilers condemned in processing plants, by states, from 1959 to 1966 and the seasonality of all broiler condemnations in the U. S. during the 8 years.

The second part points out the importance and seasonality of causes of broiler condemnations by states, from 1961 to 1966. Evaluation of the relative importance of the various causes of condemnations is based on the number of birds condemned. Analysis of the seasonality of condemnations, by causes, is based on the number of all broilers inspected.

As shown in the footnotes of Table 1 and Appendix, the data for Connecticut, Idaho, Louisiana, Oklahoma, and Kentucky were incomplete for 1 or 2 years. To avoid disclosure of individual plant operations, the data for 19 states were combined under "other"; however, these states produced only 4.4% of all broilers grown in the U. S. from 1959 through 1966 (Appendix A).

Broiler condemnation percentages shown in this report are based on volume of broilers processed under Federal inspection in the various states. These percentages may not be precisely representative of all broilers produced within a given state for several reasons: 1) Broilers Federally inspected, as a percentage of each state production, varied considerably from 1959 to 1966—Appendix

¹Broiler Condemnations Their Economic Importance, *Tennessee Farm and Home Science*, April, May, June, Progress Report 62, University of Tennessee, 1967.

C; 2) in 11 states, namely Pennsylvania, Tennessee, Kentucky, Missouri, South Carolina, Virginia, Louisiana, Oklahoma, Ohio, Wisconsin, and Idaho, more broilers in several years were processed under Federal inspection than were produced in the state since some plants bought broilers from out of the state; and 3) plants not operated under Federal inspection may average different condemnation rates than those operating under the Federal inspection program.²

Definitions used in this report of the causes of condemnations are based on the Poultry Inspector's Handbook, Poultry Division, Consumer and Marketing Service, USDA; Commercial Broiler Production, Agriculture Handbook No. 320, Agricultural Research Service, USDA, February 1967; and interviews with inspectors and managers of poultry processing plants in Tennessee and adjoining states during the years 1962 and 1967.

The broiler condemnation data used in this study are mainly for the years 1959 to 1966. However, before this report was published, preliminary data were available on broiler condemnations in the U. S. in 1967. The percent of all broilers condemned in the U. S., and the proportion of condemned broilers, preliminary for 1967, is discussed in this report and shown in Appendix Z.

BROILER CONDEMNATIONS, 1959 TO 1966

Of the 16,712 million broilers produced in the United States from 1959 through 1966, nearly 87% or 14,481 million were slaughtered under Federal inspection. Condemnations of inspected broilers for the 8 years were 336,924,000 or an average of 2.33% of inspected birds. Condemnations for all broilers produced, 1959-66, were estimated at 389,392,000 (Appendix A). The live-weight equivalent of condemned birds amounted to 1,338,676,500 pounds.

Proportion of all Broilers Condemned, by States

As an average for the years 1959-66, broiler condemnation percentages were highest in the states of California, South Carolina, and Missouri; and lowest in Wisconsin, Ohio, and Indiana (Table 1).

For the 8 years the southern states of Georgia, Arkansas, Alabama, North Carolina, Mississippi, Texas, Virginia, Tennessee,

²Labor Efficiency in Broiler Processing Plants in the South, Southern Cooperative Series Bulletin No. 112, January, 1966.

Table 1.—Percent of broilers condemned under Federal inspection by States, 1959-66

States	1959	1960	1961	1962	1963	1964	1965	1966	1959-66
Cal.	1.69	2.41	2.91	3.82	3.87	3.55	3.00	4.37	3.26
S. C.	1.18	2.28	1.82	2.81	2.39	3.11	3.28	5.48	3.08
Mo.	1.38	3.20	2.43	2.55	2.18	2.63	2.87	5.56	2.79
La.-Okla.	1.24*	3.42	1.70	1.86	2.36	2.38	2.91	3.88	2.75
Del.	1.32	2.60	1.57	2.00	2.38	2.49	3.34	4.73	2.65
Ark.	2.31	2.98	1.88	2.12	2.53	2.35	2.36	3.49	2.55
Md.	1.00	1.96	1.50	1.59	2.05	2.54	3.51	4.50	2.49
Ga.	1.56	3.19	2.03	2.42	2.47	2.37	2.17	3.21	2.46
Pa.	1.13	1.65	1.83	1.56	1.76	2.34	3.42	4.39	2.36
Miss.	2.05	3.56	1.90	1.93	2.22	2.68	1.98	2.47	2.32
Tenn.	1.45	2.94	2.21	2.19	2.09	1.92	1.87	3.13	2.26
Ala.	1.50	2.83	2.52	2.44	2.09	1.88	1.89	2.73	2.26
Tex.	2.15	2.25	1.58	1.55	1.85	2.44	2.38	3.00	2.21
Va.	0.91	1.77	2.40	1.48	1.95	2.34	3.41	3.59	2.20
N. C.	1.01	1.56	1.41	1.70	1.72	1.99	2.16	3.52	2.02
Conn.	1.21	2.10	1.89	2.28	1.99*	2.57	3.36	2.40*	1.98
Me.	1.03	2.17	1.72	1.77	1.76	1.83	2.14	3.04	1.97
Ida.	1.24*	1.55	1.69	1.35	1.90	2.26*	2.03	2.37*	1.86
Ky.	1.24*	1.59	1.73	1.85	1.78	1.64	1.51	1.93	1.72
Wash.	1.61	1.69	1.69	1.25	1.67	1.61	1.89	1.52	1.62
Wis.	0.64	1.16	1.42	1.45	1.93	1.80	1.97	1.81	1.52
Ohio	0.66	0.97	1.52	1.64	1.66	1.97	2.28	2.61	1.35
Ind.	0.62	1.01	1.24	1.45	1.45	0.94	1.38	1.63	1.19
Other	1.26	1.27	1.70	1.74	1.98	1.95	1.95	4.71	1.89
U. S.	1.47	2.49	1.90	2.04	2.17	2.29	2.40	3.40	2.33

*Estimated from data available for less than 1 year.

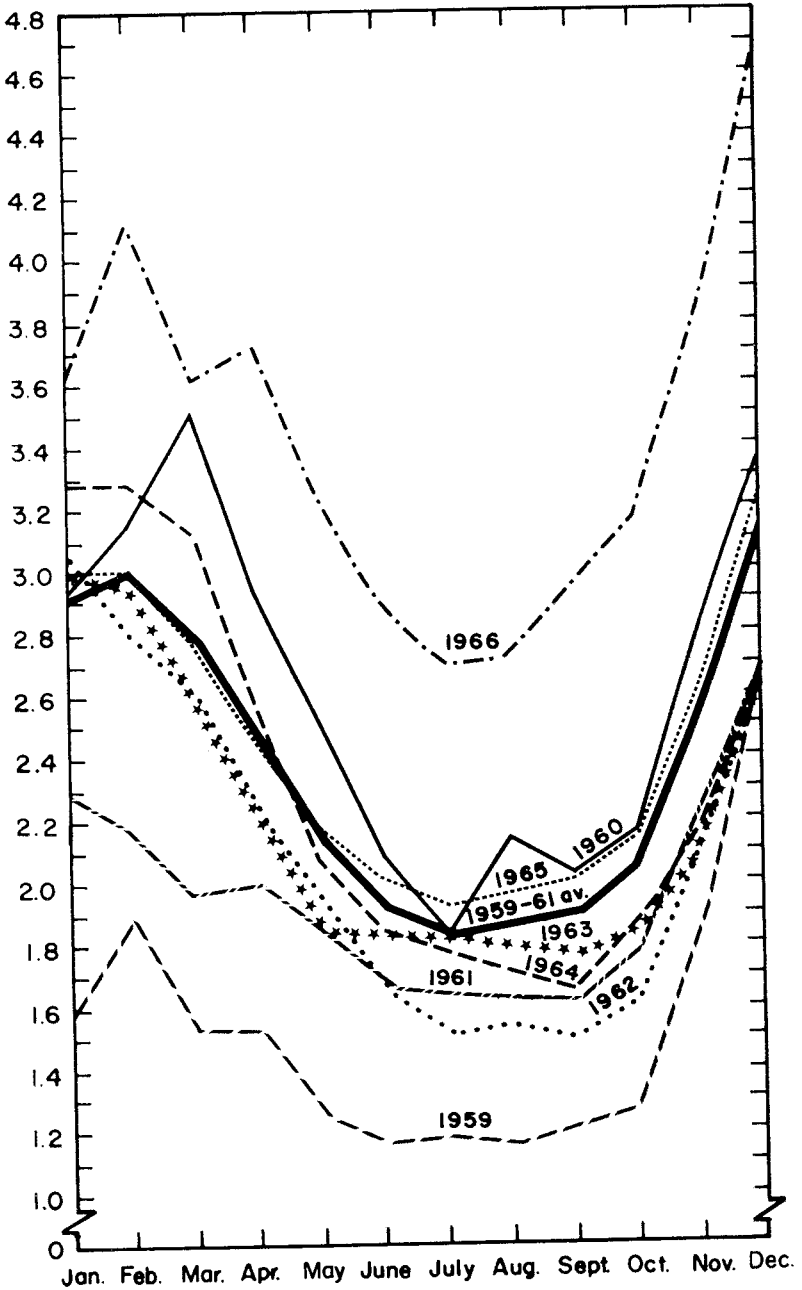
Louisiana, and South Carolina reported 71% of the U. S. broiler production, had 72% of the condemned broilers, and broiler condemnation rate averaged 2.37% or about the same as the U. S. average.

The trend in broiler condemnation percent has been upward since 1959 in all states except Alabama. The 1966 rate exceeded the 1959-66 average in all states except Washington. Condemnations in 1966 ranged from 1.52% in Washington, to 5.56% in Missouri, and averaged 3.40% for the U. S. (Table 1). The condemnation rate for 1967 in the U. S. is expected to average about 3.59% (Appendix Z).

Seasonality of Broiler Condemnations in the U. S.

From the beginning of the Federal poultry inspection program in 1959 through 1966, the broiler condemnation rate in the U. S., as a whole, averaged higher during the months of November through April, than May through October. Each year, condemna-

% CONDEMNATIONS



Source: Appendix D.

Figure 1. Broiler condemnation percentages in the United States, by months, 1959 to 1966.

tions generally were 1 percent or more higher during the winter than the summer months (Figure 1).

As an average for the 8 years, the condemnation rate averaged lowest in July (1.83%), gradually increased to 2.02% in October, increased to 3.10% in December, remained around the 3.00% level to February, and then decreased to 1.93% in June (Appendix D).

The U. S. annual average condemnation rate varied considerably by years—1.47% in 1959 to 3.40% in 1966 and 3.59% in 1967. However, the seasonal pattern of higher condemnations during the winter months was about the same each year (Figure 1 and Appendix Z).

Condemnations by season of year were computed for each of 24 important broiler-producing states. In each state, each year, they were higher during the winter compared with the summer months. The seasonality of broiler condemnations, by states, by causes as an average for the years 1961 to 1966, is discussed later in the report and given in Appendixes P to Y.

CAUSES OF CONDEMNATIONS, 1961 TO 1966, BY STATES

Volume of Condemned Broilers

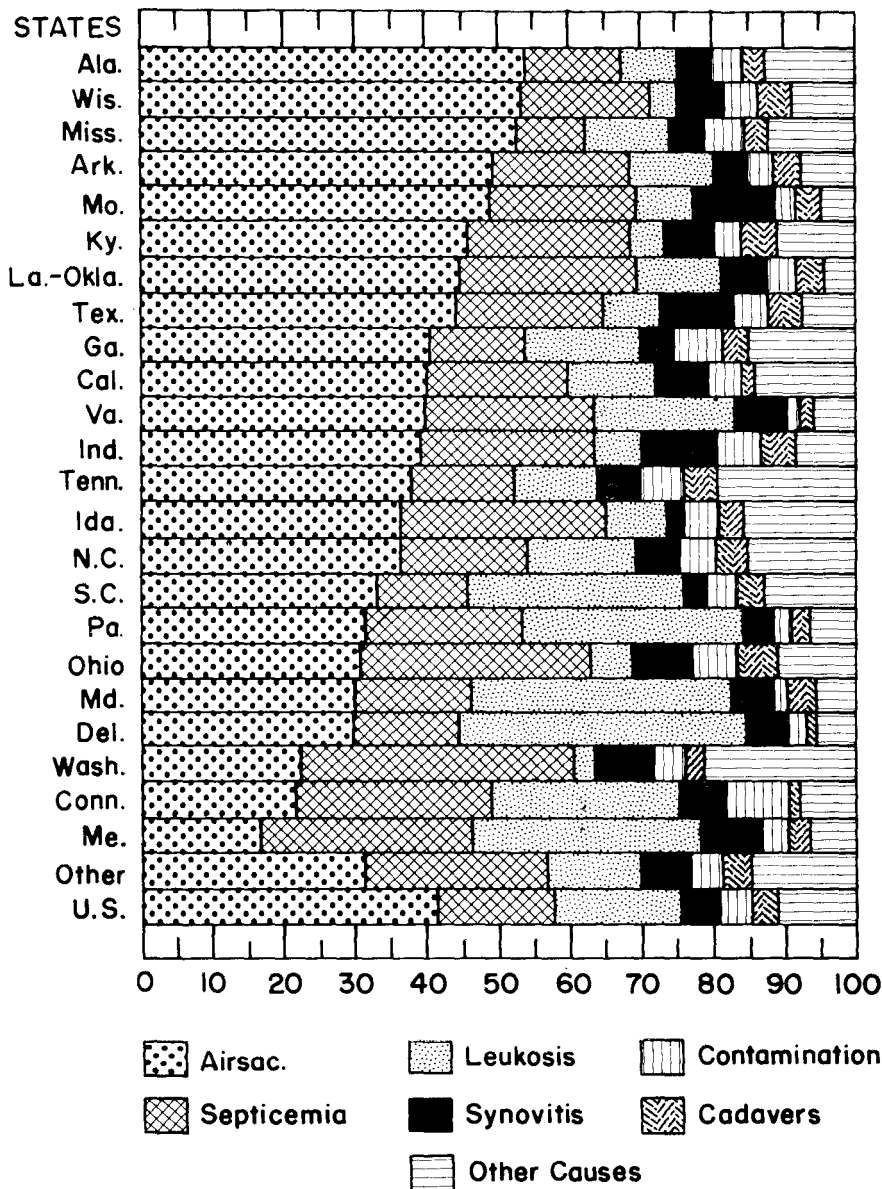
Data were available to compute the percent of condemned broilers by major causes by states for the years 1961 through 1966. Summarized data by states as an average for the 6 years are shown in Figure 2 and Appendix B, and for individual states by years in Appendixes E to N.

This part of the report points out the relative importance of the various causes of condemnations in the broiler-producing states by years. The data shown in Figure 2 and Appendixes B, and E to N, are based on volumes of condemned broilers and do not reflect the trends or seasonality of all broiler condemnations by causes. The seasonality of broiler condemnations, by causes, is shown in a later section of the report.

Airsacculitis³

Airsacculitis is an inflammation of the thin air sac membrane. The inflammation may result in the formation of an exudate in the air sac which may be observed within the body cavity, in pneu-

³The description and causes of diseases and condemnations used in this report are based on the Poultry Inspector's Handbook, Poultry Division, Consumer and Marketing Service, USDA.



Source: Appendix B.

Figure 2. Percent of condemned broilers, by major causes, by states, 1961-66 average.

matic bones, and near certain joints. Airsaculitis may be due to a wide variety of causes including mycoplasma, gallisepticum, and secondary infections.

During the years 1961 to 1966, more broilers were condemned for airsaculitis than for any other cause in all states except Ohio, Maryland, Delaware, Washington, Connecticut, and Maine (Figure 2 and Appendix B).

Airsaculitis, as a 6-year average, accounted for 17% of all condemnations in Maine to over 50% in Alabama, Wisconsin, and Mississippi, and averaged 41% in the U. S. (Appendix E). The U. S. average in 1967 is expected to be about 34% of the condemnations (Appendix Z).

The proportion of birds rejected due to airsaculitis was erratic from year to year in each of the states. The greatest annual variation occurred in Wisconsin, Virginia, Tennessee, Idaho, South Carolina, and Connecticut (Appendix E).

Septicemia

Septicemia or toxemia is a generalized diseased condition caused by invasion of the blood stream by virulent microorganisms. This condition may be indicated by lesions including, but not limited to, cyanosis, hyperemia, anemia, edema, dehydration, or inflammatory lesions in any part of the body.

For the 6-year period 1961-66, Washington, Ohio, and Connecticut had higher proportions of condemned birds for septicemia than for any other cause (Appendix B). Septicemia accounted for over 38% of all condemnations in Washington, to 15% or less in Delaware, Tennessee, Alabama, Georgia, South Carolina, and Mississippi. The 6-year average for the U. S. was 17.2% (Appendix F). The 1967 average was about 16.7% (Appendix Z).

The percent of condemnations due to septicemia, within each state, varied considerably from year to year. The greatest variations occurred in the states of Ohio, Maine, Virginia, Pennsylvania, Arkansas, Maryland, and Delaware (Appendix F).

Leukosis

Avian diseases of the leukosis complex are characterized primarily by an independent rapid succession of divisions of essential blood-forming cells. Leukosis includes visceral lymphomatosis, osteopetrosis, erythroblastosis, myeloblastosis, myelocytomatosis,

and nephroblastoma. The disease may be manifested by paralysis, skin tumors, eye damage, or enlarged liver.

From 1961 through 1966 the states of Delaware, Maryland, and Maine had higher proportions of condemned birds for leukosis than for any other cause (Figure 2). Leukosis accounted for under 5% of the condemnations in Washington and Wisconsin to over 30% in South Carolina, Pennsylvania, Maine, Maryland, and Delaware. The 6-year average for the U. S. was 17.3% (Appendix G). In 1967, however, leukosis represented about 35% of all condemnations in the U. S. Beginning in May 1967, leukosis comprised a higher proportion of the condemned birds than for any other cause (Appendix Z).

The percent of condemned birds due to leukosis, within each state, varied widely from year to year. The greatest variations occurred in the states of Delaware, Maryland, Maine, Pennsylvania, South Carolina, and Virginia (Appendix G). In these states in 1966, the condemnations for leukosis were higher than for any other cause.⁴

Synovitis

Synovitis is an inflammation of synovial tissues which are lubricating membranes lining the joint capsules that surround movable joints, enclose tendons, and cover bony prominences such as the keel bones.

For the years 1961-66, synovitis accounted for 5.4% of the condemnations in the U. S., ranging from 2% in Idaho to over 9% in Texas, Indiana, and Missouri (Appendix H).

The proportion of condemned birds due to synovitis among states varied widely from year to year. The greatest variations occurred in the states of Missouri, Kentucky, Wisconsin, Virginia, North Carolina, and Tennessee (Appendix H). In most states the proportion of birds rejected for synovitis reached a high in 1964 and since then has been declining.

The proportion of birds rejected due to synovitis in the U. S. was highest (10.2%) in 1964, 4.5% in 1965, 3.1% in 1966 and is expected to average about 2.2% in 1967 (Appendixes H and Z).

⁴Preliminary data indicate that condemnations for leukosis in 1967 were higher than for any other cause in all of the important broiler-producing states except Indiana, Wisconsin, Tennessee, Mississippi, Louisiana, Texas, and Washington.

Contamination

Carcasses or parts thereof that are contaminated with paint, grease, oils, kerosene, poisons, obnoxious gases, fecal material, gall, contents of the crops, or other noxious materials or substances which may permeate the tissues rendering them unfit for human food are condemned.

During the 6-year period 1961-66, contamination accounted for 4.6% of the condemnations in the U. S.—ranging from 2.5% in Maryland and Delaware to over 6% in Georgia, Tennessee, Indiana, and Connecticut (Appendix I). The amount of condemned birds for contamination varied widely in the remaining states by years (Appendix I).

Indications are that the proportion of broilers condemned due to contamination will average about 4.4% for the U. S. in 1967, or slightly under the 1961-66 average (Appendix I and Z).

Cadavers

Birds dead from any cause other than by slaughter are classified as "cadavers." Cadavers result mainly from improper slaughtering cuts or improper bleeding. They are generally referred to as "misbleds."

For the 6-year period, cadavers or misbleds accounted for 3.2% of the condemnations in the U. S. and ranged from under 2% in Connecticut, Delaware, and California to 5.7% in Ohio (Figure 2 and Appendix J).

The proportion of condemned broilers for cadavers is expected to average about 2.5% in 1967 (Appendix Z).

Bruises

Bruises are due primarily to mishandling birds in the operations of catching, loading, transporting, unloading and hanging, and to machine injuries. When bruises or hemorrhage, associated with broken bones, have occurred long enough before slaughter so that there is evidence of systemic disturbance, the whole carcass is condemned. When the bruised condition is localized in nature or has occurred immediately prior to, or during slaughter, the affected parts are trimmed away and condemned.

As an average, 1961-66, bruises accounted for only about 1% of the condemned broilers in the U. S. However, the proportion

varied from under .6% in Delaware, Virginia, Pennsylvania, and Maryland to over 2% in Kentucky, Idaho, and Wisconsin (Appendix K). The proportion of broilers rejected for bruises in the U. S. in 1967 is expected to average about 1.0% (Appendix Z).

Overscald

Carcasses of broilers which have been overscalded or oversinged, resulting in a cooked appearance of the flesh, are condemned. In overscald, the skin will slip from the meat of the carcass and portions of the intestines may show a cooked appearance.

As an average, 1961-66, only .41% of the condemnations in the U. S. were from overscald but the rate varied from .1% in Connecticut to over 1% in Idaho and Kentucky (Appendix L). The proportion of condemned broilers for overscald in the U. S. in 1967 is expected to average about .4% (Appendix Z).

Tumors

Whole broiler carcasses are condemned for tumors when there is evidence of metastasis or multicentric involvement of more than one organ; if a malignant tumor is in the skin, bone, or skeletal muscle; or if the size, position, or nature of the tumor is such that the general condition of the bird has been affected, rendering it unfit for human consumption.

While the proportion of condemnations for tumors not of the leukosis complex averaged only .33% in the U. S. from 1961 through 1966, the proportion ranged from less than .2% in Virginia, South Carolina, Tennessee, and Missouri to over .6% in Texas, Wisconsin, and Ohio (Appendix M).

The proportion of broilers condemned for tumors in the U. S. in 1967 is expected to average about .3% (Appendix Z).

Other Causes

The important other causes of condemnations include: infectious processes and evidence of diseases; abnormal organs, and conditions; excessive dehydration; extreme emaciation; anemia; feed contamination; fat metabolism imbalance; abdominal accumulations or yellowish deposits; excessive vestigial feathers; abnormal discolorations of skin and flesh; disjointed, broken or enlarged bones; decomposition; bad odor; parasite or pest damage; dirty or bloody carcass; no viscera available for inspection; trauma; dead

birds or birds in a dying condition; tuberculosis; diseases directly transmissible to man such as ornithosis or erysipelas; and unwholesome general appearance of the carcass.

The proportion of condemnations for undefined causes for the 1961-66 period ranged from under 3% in Louisiana, Oklahoma, and Missouri to over 16% in Washington and Tennessee and averaged 9.2% in the U. S. (Appendix N). The average for 1967 is expected to be about 2.9% (Appendix Z).

The proportion of birds condemned for "other" or undefined causes, by states, averaged considerably lower from 1964 to 1966 compared with the period 1961-63 (Appendix N). A plausible explanation for this decrease is that more precise methods of determining and describing causes of condemnations have been developed by the poultry inspection services. Another reason is that in recent years some improvements have occurred in growing and processing broilers to reduce the incidence of condemnation losses classified as "other."

Seasonality of Broiler Condemnations

The rate of total broiler condemnations in the U. S., by season of the year, 1959 to 1966, was shown to be higher during the winter compared with summer months (Figure 1 and Appendix D). However, the pattern of condemnations, by specific causes, as an average for the years 1961 to 1966 for which data were available, showed considerable variation among states and for the U. S. as a whole. This part of the report points out these variations and the incidence of condemnations by major causes by states.

The volume of broiler production, broilers processed under Federal inspection, and condemnations by states for the 6 years, 1961 to 1966, is shown in Appendix O.

The proportion of broilers condemned under Federal inspection, due to various causes, is given in Appendixes P to Z. The relative importance of any one of the causes of condemnations in any particular state (1961-66 av.) may be computed by dividing the condemnation rate for a particular cause by the total condemnation rate. For example, in Missouri the condemnation rate for airsacculitis averaged 1.46% (Appendix P) and the total condemnation rate for all causes averaged 2.97% (Appendix O). Therefore, as an average for the years 1961-66, airsacculitis represented about 49% of all condemnations ($1.46 \div 2.97 \times 100$).

Airsacculitis

From 1961 to 1966 the broiler condemnation rate for airsacculitis in the U. S., by months ranged from a low of .47% in September, 1964, to a high of 2.22% in December, 1966,⁵ and averaged about 1.0% for the 6 years (Figure 3.) The monthly condemnation rates for airsacculitis were higher each year during the colder-weather months.

The rate of broiler condemnations for airsacculitis in the United States for the years 1961 to 1966 averaged 94% higher from November to April than from May to October. As an average for 6 years, the proportion of broilers condemned for airsacculitis in the U. S. increased from .65% in August to 1.61% in February and then declined to .64% in July (Appendix P).

All of the broiler-producing states followed the U. S. pattern of

⁵Although not shown in Figure 3, the monthly condemnation rate for airsacculitis reached a peak of 2.52% in January, 1967 (Appendix Z).

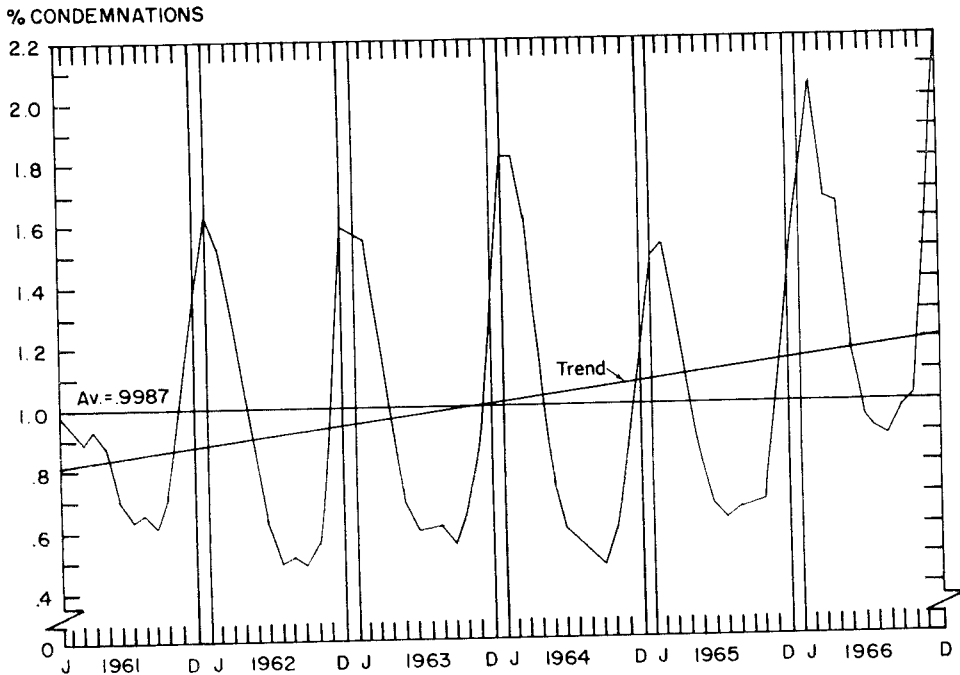


Figure 3. Broiler condemnation percentages for airsacculitis in the U. S., by months, 1961-66.

seasonality in losses from this disease; that is, the rate of condemnations for airsacculitis averaged higher during the months of November to April than for May to October (Appendix P).

While the incidence of condemnations for airsacculitis in the U. S. from 1961 to 1966 was highly seasonal, the monthly trend was erratic by years (Figure 3). Monthly variations in the condemnation rate of airsacculitis in the U. S. may be attributed to seasonal changes in weather conditions within states, differences in the methods of prevention and control of this disease in various production areas, and variation in plant inspection programs among states.

The trend of condemnations for airsacculitis has been upward in the U. S. during the past 6 years at .1% annually, ranging from .83% in 1961 to 1.36% in 1966 (Figure 3). The 1967 average, however, is expected to be around 1.2% (Appendix Z). Although the trend in condemnation rate for airsacculitis has been upward in the U. S., as a whole, it was downward in several states including Alabama, Georgia, Tennessee, Kentucky, Indiana, and Maine.

The pattern of higher condemnations for airsacculitis during the winter months suggests that colder weather, or adverse weather conditions during the colder period of the year, contributes to the higher incidence of airsacculitis. While this appears to be true within each state, the data do not show that condemnation rates for airsacculitis average higher in the northern and eastern, compared with the southern states.

For the 6 years, or 1961-66, the proportion of broilers condemned for airsacculitis in Wisconsin, Delaware, Pennsylvania, Maryland, Kentucky, Idaho, Indiana, Ohio, Connecticut, Washington, and Maine was below the U. S. average (Appendix P). These data indicate that many factors, other than temperature, are important in determining the rate of condemnations for airsacculitis in the various broiler-producing states.

The condemnation rate of 1 per 100 birds for airsacculitis in the U. S. as an average for the 6 years, 1961 to 1966, has been high. Of the 13,180,267,000 broilers produced in the U. S. during the six years, an estimated 131,615,000 were condemned due to airsacculitis. These condemnations for airsacculitis represented 41.44% of the 317,644,000 birds condemned during this period (Appendix B and O).

Septicemia

During the years, 1961-66, the broiler condemnation rate for septicemia, in the U. S., by months, ranged from a low of .13% in May and June, 1963, to a high of .81% in December 1966, and averaged .41% for the six years (Figure 4). During 5 of the 6 years, the septicemia condemnation rates were higher during the colder-weather months.

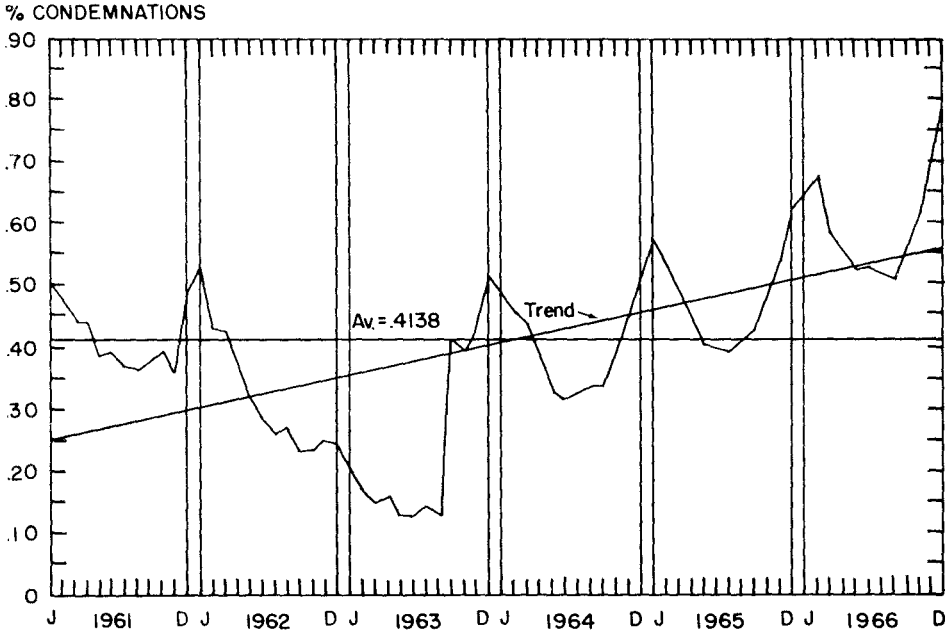


Figure 4. Broiler condemnation percentages for septicemia in the U. S., by months, 1961-66.

Broiler condemnations for septicemia in the U. S. as an average for 1961-66 were 29% higher during the period October to March than from April to September. The rate was highest in the late fall and winter, and lowest in the late spring and summer months. For the 6 years the proportion of broilers condemned for septicemia in the U. S. increased from .35% in August to .56% in December, and then steadily declined to .34% in July (Appendix Q).

All of the broiler-producing states followed the U. S. pattern of seasonality in losses from septicemia. However, there were wide seasonal differences among states, and wide variations in the level

of septicemia condemnations among states as an average for the 6 years (Appendix Q).

While the incidence of condemnations for septicemia in the U. S. was seasonal, as an average for the years 1961-66, there was an exception in 1962. The trend of septicemia in the U. S. has been upward (Figure 4). The rate decreased from .42% in 1961 to .24% in 1963 and then increased to .60% in 1966. The rate in 1967 is expected to be about .60% (Appendix Z).

Although the trend of condemnations for septicemia was upward in the U. S. from 1961 to 1966, the trend was downward in several states including Washington, Connecticut, Virginia, Idaho, Delaware, Kentucky, and Indiana.

The condemnations at the rate of 1 per 242 birds for septicemia in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 54,533,000 birds and represented 17.17% of all broilers condemned during this period (Appendix B).

Leukosis

For the years 1961 to 1966, the broiler condemnation rate for leukosis in the U. S., by months, ranged from a low of .1% in April, 1961, to a high of 1.2% in December, 1966, and averaged .4% for the six years (Figure 5).^a No definite seasonal pattern for leukosis condemnations was established.

For the U. S. as a whole, leukosis condemnations averaged highest in December (.57%), and lowest in January (.35%), but the rate was erratic throughout most months of the seasons (Appendix R).

The trend in leukosis condemnations in the U. S. has been rapidly upward since 1961 (Figure 5). The annual rate increased from .11% in 1961 to .93% in 1966. Preliminary data indicate that the condemnation rate for leukosis alone in the U. S. in 1967 would average nearly 1.3% and represent about 36% of all condemnation losses (Appendix Z).

The trend in the rate of leukosis condemnation since 1961 has been rapidly upward in all of the broiler producing states except Washington. The increase has been especially swift in the states of Delaware, Maryland, the Carolinas, Pennsylvania, Maine, Virginia, Georgia, Arkansas, California, and Idaho.

^aThe monthly condemnation rate for leukosis increased to 1.5% in December, 1967 (Appendix Z).

% CONDEMNATIONS

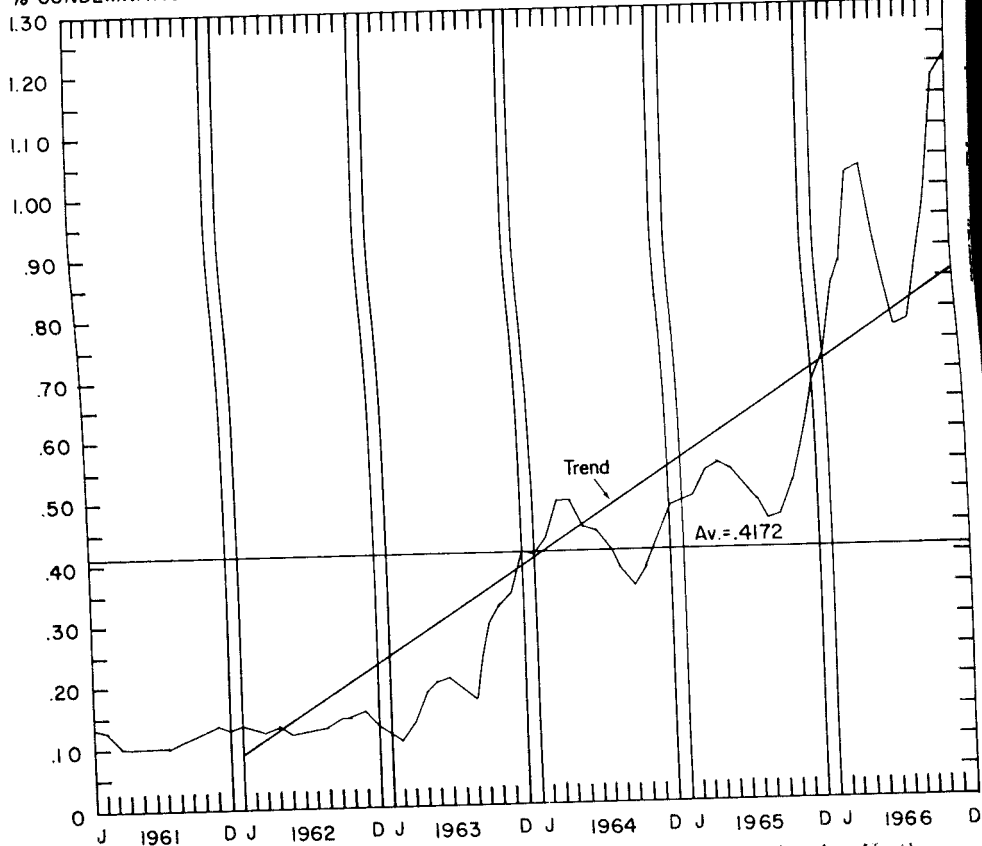


Figure 5. Broiler condemnation percentages for leukosis in the U. S., by months, 1961-66.

The condemnations at the rate of 1 per 240 birds for leukosis in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 54,981,000 birds and represented 17.3% of all broilers condemned during this period (Appendix B).

Synovitis

During the years, 1961-66, the broiler condemnation rate for synovitis in the U. S., by months, ranged from a low of .07% in September, 1962, to a high of .29% in March, 1964, and averaged .13% for the 6 years (Figure 6). While the monthly condemnation rates for synovitis varied erratically during each of the 6

% CONDEMNATIONS

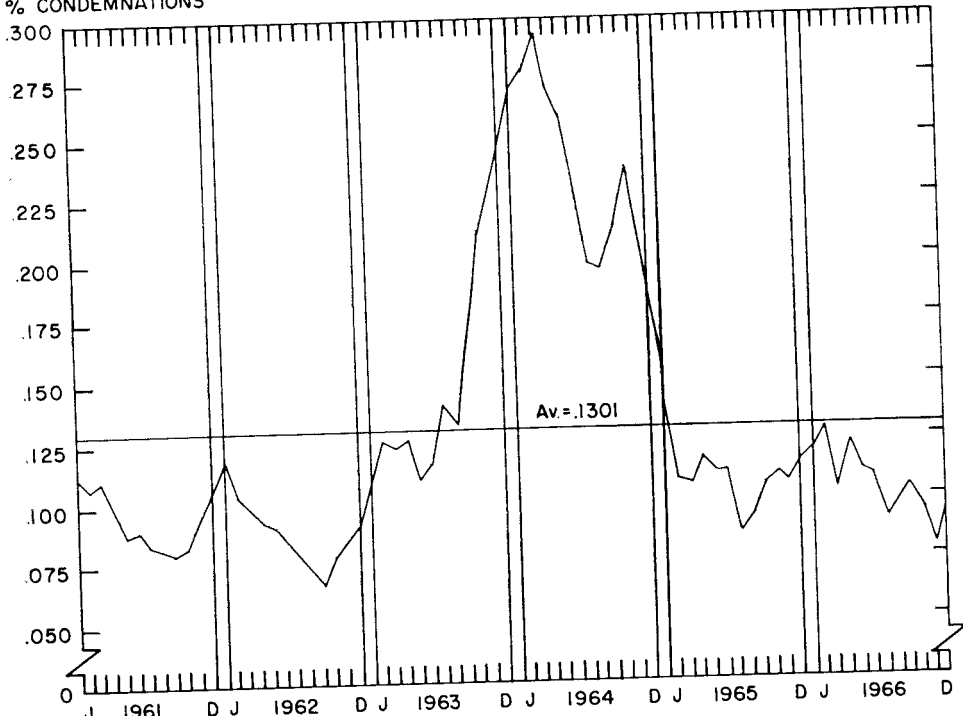


Figure 6. Broiler condemnation percentages for synovitis in the U. S. by months, 1961-66.

years, they generally were higher during the colder-weather months, October to April.

Broiler condemnations for synovitis in the U. S., as an average for 1961-66, were about 16% higher during the period October to April than from May to September. The rate increased from .11% in August to .15% in February, and then declined to .11% in July. The seasonality pattern of synovitis condemnations in all of the broiler-producing states except Tennessee was similar to that in the U. S., but there were wide variations among states in the monthly rates (Appendix S).

For the U. S. as a whole, the annual trend of synovitis condemnations was upward from 1961 to 1964 and downward from 1964 to 1966 (Figure 6). All states followed the U. S. pattern except Connecticut and Indiana. The condemnation rate for synovitis in the U. S. as a whole in 1967 is expected to average about .08% or under the 1961-66 average of .13% (Appendix Z).

Condemnations at the rate of 1 per 769 birds for synovitis in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 17,145,000 birds and represented 5.4% of all broilers condemned during this period (Appendix B).

Contamination

During the years 1961-66, the broiler condemnation rate for contaminations in the U. S., by months ranged from a low of .06% in March and April, 1961, to a high of .18% in September, 1966, and averaged .11% for the 6 years (Figure 7). While the monthly condemnation rates for contamination varied considerably during each year, they generally were higher during the period from mid-summer to mid-fall.

Broiler condemnation percentages for contamination in the U. S., as an average, were about 15% higher during the period July to December than from January to June. The rate increased from May to September and then erratically declined to April. In all states except Connecticut, Indiana, and Delaware, the monthly condemnation rate for contamination followed the U. S. average pattern (Appendix T).

The trend in condemnation rates for contamination was slightly upward in the U. S., ranging from .07% in 1961 to .15% in 1966.

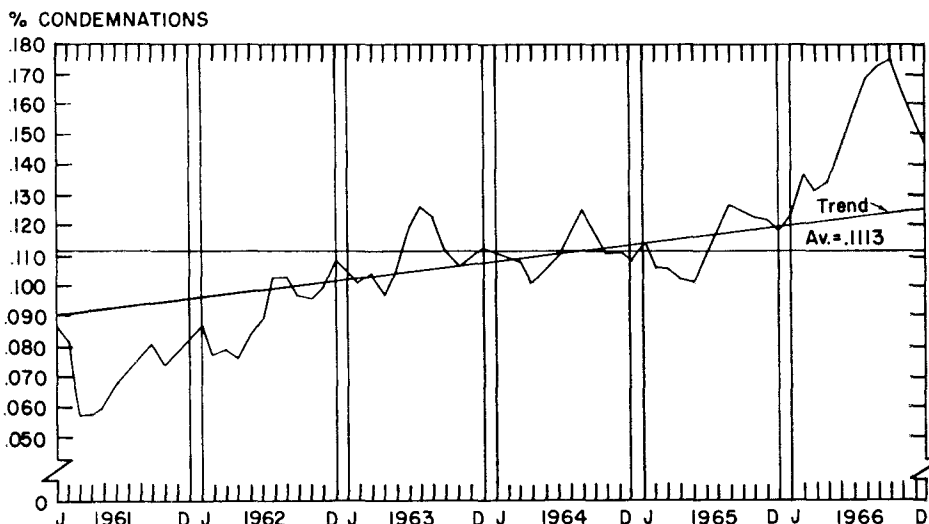


Figure 7. Broiler condemnation percentages for contamination in the U. S., by months, 1961-66.

in 1966 (Figure 8). The 1967 rate is estimated at .16% (Appendix Z).

The trend in condemnation rate for contamination was upward in all states except California and Missouri.

Processors generally are responsible for most condemnations classified as contamination. The results of this study indicate that the processors in many states are more efficient than those in other areas in the control of the various factors associated with contamination. As an average for the years, 1961-66, the proportion of all broilers condemned because of contamination averaged .111 in the U. S. but less than the U. S. average in 17 states (Appendix T).

Condemnations at the rate of 1 per 899 birds for contamination in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 14,668,000 birds and represented 4.6% of all broilers condemned during the period (Appendix B).

Cadavers

During the years 1961-66, the broiler condemnation rate for cadavers in the U. S. ranged from a low of .06% in April, 1961 to a high of .11% in December, 1966, and averaged .08% for the 6 years (Figure 8). The monthly condemnation rates for cadavers

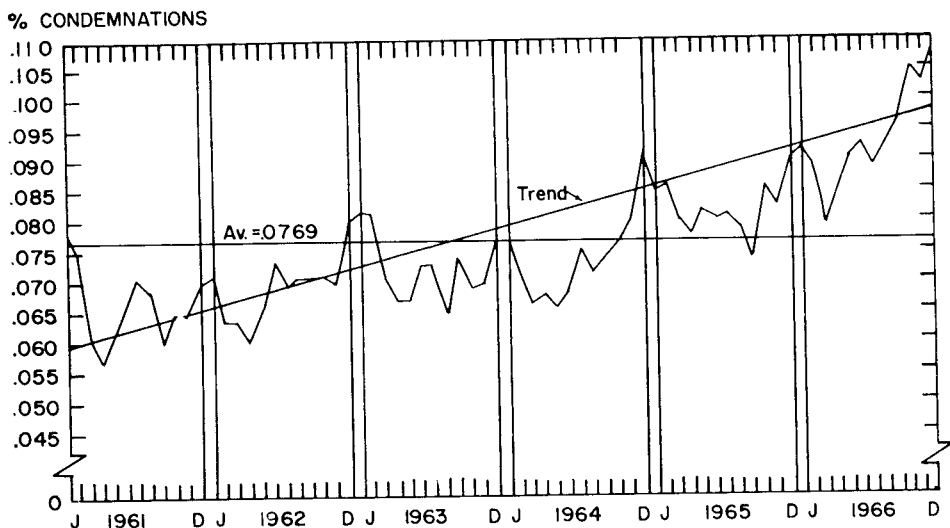


Figure 8. Broiler condemnation percentages for cadavers in the U. S., by months, 1961-66.

varied widely during each year but they generally were higher during the colder-weather months.

For the U. S. as a whole, the condemnation rate for cadavers averaged about 10% higher during the months of October to February than for the months of March to September. In all states except Louisiana, Oklahoma, and Missouri, the monthly condemnation rate for cadavers followed the U. S. average pattern.

The trend in cadaver condemnation rate in the U. S. was upward from 1961 to 1966 (Figure 8). The annual rate increased from .07% in 1961 to .09% in 1966. The 1967 rate is expected to average about .09% (Appendix Z).

Although the trend in condemnation rate for cadavers has been upward for the U. S. as a whole, the rate has been declining in several states including Connecticut, South Carolina, Missouri, Tennessee, Kentucky, Wisconsin, and Idaho.

Processors are responsible for condemnations classified as cadavers. The results of this study indicate that the processors in many states have been able to hold down the level of condemnation rate for cadavers. As an average for the years, 1961-66, the proportion of all broilers condemned because of cadavers averaged .08% in the U. S. but less than the U. S. average in 12 states (Appendix U).

Studies in processing plants showed that the rate of killing of 2,400 birds per man-hour or 40 birds per man per minute resulted in an excessive rate of cadavers, or mutilated, unmarketable birds. The goal established for tunnel killers was 2,000 birds per worker per hour, a requirement of three tunnel killers for operation at the level of 4,800 to 6,000 birds per hour.⁷

Condemnations at the rate of 1 per 1,300 birds for cadavers in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 10,134,000 birds and represented 3.2% of all birds condemned during the period (Appendix B).

Bruises

From 1961 to 1966, the broiler condemnation rate for bruises in the U. S., by months, ranged from a low of .014% in May, 1962 to a high of .040% in February, 1966, and averaged .023% for the

⁷Labor Efficiency in Broiler Processing Plants in the South, Southern Cooperative Series Bulletin No. 112, January, 1966.

6 years (Figure 9).² For the 6 years, the rate averaged higher during the colder-weather months.

Broiler condemnations for bruises, as an average for 1961-66, were 18% higher during the months of November to February than from March to October. The condemnation rate for bruises in all states tended to follow the U. S. seasonal pattern in being higher during the colder-, compared with warmer-weather, months.

Processors and loading crews are responsible for most of the condemnations classified as bruises caused in the handling of birds. In many states, the processors have been able to hold down the level of condemnation rate for bruises. As an average for the years 1961-66, the proportion of all broilers condemned because of bruises averaged .023%, but it was less than the U. S. average in 11 states, ranging from .012% in Delaware to .023% in Georgia (Appendix V).

An acceptable plant level of condemnations for bruises averaged about .02%. Rates above the .02% level show considerable effect on output per worker. Each increase of .01% in condemna-

²The monthly condemnation rate for bruises reached a peak of .042% in January, 1967 (Appendix Z).

% CONDEMNATIONS

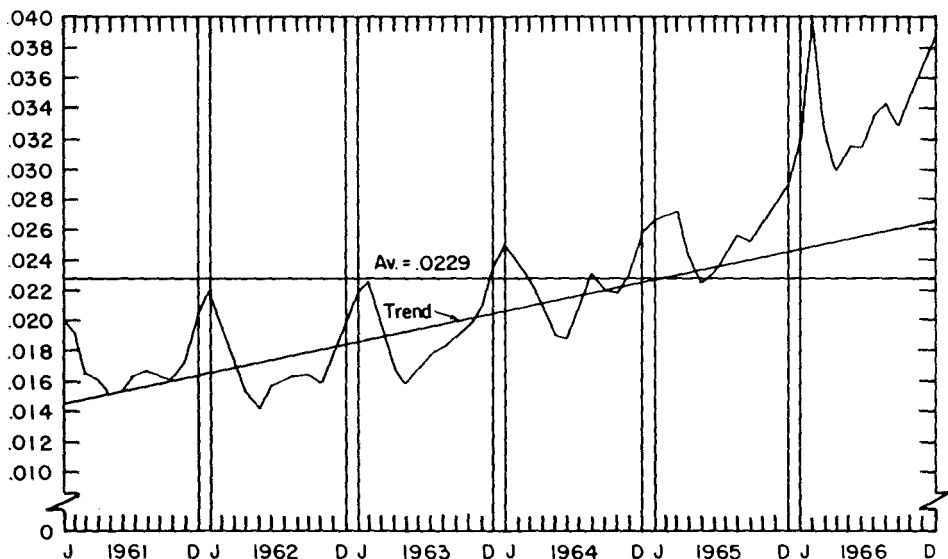


Figure 9. Broiler condemnation percentages for bruises in the U. S., by months, 1961-66.

tion rate is associated with an overall decrease of .004 ready-to-cook bird in rate per worker per hour. On the other hand, to lower the condemnation rate for bruises much below the .02% level requires extra labor, and can upset established crew balance in relation to desired production level or line speed within some departments of processing operations.

The trend in condemnation rate for bruises was upward in all states except Kentucky, California, and Maine. The annual rate in the U. S. ranged from .017% in 1961 to .034% in 1966. The 1967 rate is estimated at .035% (Appendix Z).

Condemnations at the rate of 1 per 4,367 birds for bruises in the U. S. as an average for the 6 years, 1961 to 1966, were estimated at 3,018,000 birds and represented .95% of all birds condemned during the period (Appendix B).

Overscald

Broiler condemnation rates for overscald, by months for the period 1961-66 in the U. S., ranged from a low of .004% in February, 1964 to a high of .018% in August, 1966, and averaged .010% for the 6 years (Figure 10). Each year the rates averaged highest during the summer.

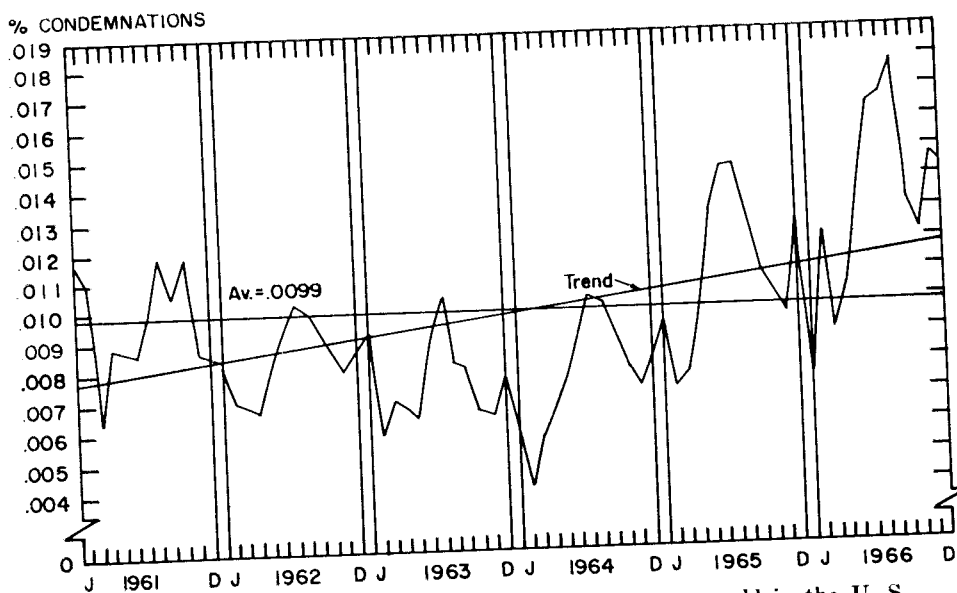


Figure 10. Broiler condemnation percentages for overscald in the U. S., by months, 1961-66.

Broiler condemnations for overscald in the U. S. for the 6 years averaged 30% higher during the months of June to September than for other months of the season. The condemnation rate for overscald in all states except South Carolina, Pennsylvania, Virginia, and Connecticut followed the U. S. pattern of being lower during the warmer months.

The trend in condemnation rate for overscald in the U. S. was upward (Figure 10). However, the annual rate was erratic, declining from .010% in 1961 to .008% in 1963 and 1964, and then increasing to .014% in 1966. The 1967 rate is estimated at .016% (Appendix Z). The trend for condemnation rate for overscald has been upward in all states except Idaho, Kentucky, California, Indiana, Virginia, Tennessee, and Connecticut.

Processors are responsible for the condemnations classified as overscald. The results of this study indicate that the incidence of condemnations for overscald varies widely among states by years. As an average for the period, 1961-66, the proportion of all broilers condemned because of overscald averaged .010% in the U. S. but higher than the U. S. average in 16 states (Appendix W).

The condemnation rate for overscald in the U. S. as an average for the 6 years was 1 condemnation per 10,100 birds. Of the 13,180,267,000 broilers produced in the U. S. from 1961 to 1966, an estimated 1,305,000 were condemned as unfit for human consumption because of overscald.

Tumors

Broiler condemnation rates for tumors, by months, for the years 1961-66 in the U. S., ranged from a low of .005% in March, 1963 to a high of .012% in December, 1966, and averaged .008% for the six years (Figure 11). The rate averaged higher from late summer to mid-winter than for other months of the season.

As an average for the 6 years in the U. S., the condemnation rate for tumors averaged lowest in March, or .007%, gradually increased to .009% in December, and then declined to .007% in early spring. While most states followed the U. S. pattern of higher condemnations during the fall and winter months, exceptions occurred in the states of Connecticut, Idaho, and Indiana (Appendix X).

The trend in condemnation rate for tumors in the U. S. was

% CONDEMNATIONS

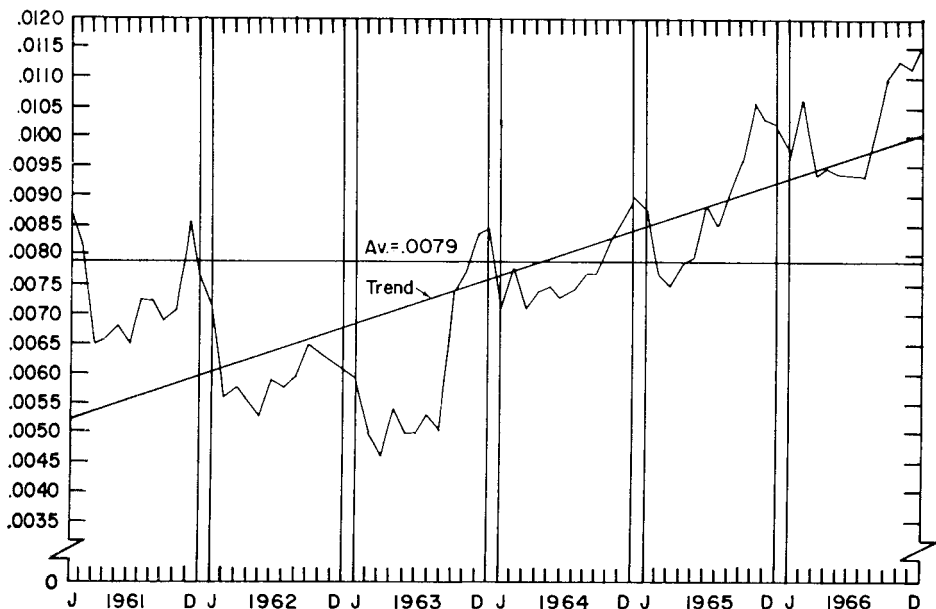


Figure 11. Broiler condemnation percentages for tumors in the U. S., by months, 1961-66.

upward (Figure 11). However, the annual rate was erratic, declining from .007% in 1961 to .006% in 1962 and 1963, and then increasing to .010% in 1966. The 1967 rate is expected to average .010% (Appendix Z). While the trend was upward for the U. S. as a whole, it was downward in 8 states including California, Louisiana, Oklahoma, Delaware, Idaho, Indiana, Maryland, and Virginia.

The condemnation rate for tumors in the U. S. as an average for the 6 years was low or one condemnation per 12,661 birds. Of the 13,180,267,000 broilers produced in the U. S. from 1961 to 1966, an estimated 1,041,000 were condemned as unfit for human consumption because of tumors.

Other Causes

Broiler condemnation rate for undefined causes in the U. S. from 1961 to 1966 ranged from a high of .78% in February, 1963 to a low of .04% in May, 1964, and averaged .22% for the 6 years (Figure 12). Condemnation rates for undefined causes established

ECONOMIC IMPORTANCE OF BROILER CONDEMNATIONS

The primary purpose of this study was to show the causes, seasonality and trends of broiler condemnations, by states, over a period of several years. The economic importance of broiler condemnations has been discussed in other reports.⁹ The results of these studies indicated that in 1966:

1. Condemnation losses in the U. S. broiler industry in 1966 were estimated at \$178,719,000 on 2,568,000,000 broilers, and they amounted to 1.992 cents per pound of liveweight processed.
2. With condemnation rate averaging 3.4%, it is estimated that it required .233 of a pound extra feed to produce a pound of broiler liveweight. The total extra feed cost amounted to \$91,982,000, or 1.025 cents per pound for all broilers produced. Each increase of 1% in condemnation rate was associated with an increase of .06855 of a pound in feed conversion ratio.
3. Condemnation loss was estimated at \$46,719,000 for the liveweight of birds condemned, or .521 cent per pound for all broilers processed.
4. Cost of medication and treatment was estimated at \$37,062,000, or .413 cents per pound for all broilers processed. An increase of 1% in condemnation rate was associated with an increase in medication cost of .1 cent per pound liveweight of broiler produced.
5. Plant cost of processing condemned birds, up to inspection point, cost \$2,956,000 or .033 cent per pound for all birds slaughtered.
6. Additional varying cost of condemnations relate to the effect of broiler condemnation percent on output per worker in processing plants. As an average, each increase of 1% in condemnation rate was associated with an overall decrease of .4 ready-to-cook bird in rate per worker per hour.
7. The total loss in anticipated income associated with broiler condemnations in the U. S. in 1966, of 1.992 cents per pound, comprised 13% of the average liveweight market value of 15.2 cents per pound of all broilers processed.

⁹Broiler Condemnations—Their Economic Importance, Tennessee Farm and Home Science, April, May, June, Progress Report 62, University of Tennessee, 1967; and Labor Efficiency in Broiler Processing Plants in the South, Southern Cooperative Series Bulletin No. 112, January, 1966.

APPENDIX A

Broiler production and post mortem condemnations in the United States, 1959 to 1966

States	Broilers under Federal inspection						
	Broilers produced		Inspected		Percent of prod.	Condemnation	Condemnations total**
	(000)	%	(000)	%	%	%*	(000)
Ga.	2,917,683	17.46	2,481,830	17.14	85.06	2.46	71,775
Ark.	2,043,921	12.23	1,849,518	12.77	90.49	2.55	52,120
Ala.	1,827,825	10.94	1,464,780	10.11	80.14	2.26	41,309
N. C.	1,611,391	9.64	1,505,822	10.40	93.45	2.02	32,550
Miss.	1,163,974	6.96	1,007,498	6.96	86.56	2.32	27,004
Tex.	1,034,867	6.19	794,802	5.49	76.80	2.21	22,871
Md.	980,889	5.87	867,509	5.99	88.44	2.49	24,424
Del.	797,930	4.77	637,476	4.40	79.89	2.65	21,145
Me.	505,130	3.02	489,917	3.38	96.99	1.97	9,951
Cal.	472,181	2.83	226,596	1.57	47.99	3.26	15,393
Va.	398,876	2.39	382,517	2.64	95.90	2.20	8,775
Pa.	318,832	1.91	592,543	4.09	185.85	2.36	7,524
Tenn.	304,004	1.82	428,433	2.96	140.93	2.26	6,871
Mo.	267,915	1.60	337,594	2.33	126.01	2.79	7,475
Ind.	243,656	1.46	111,259	.77	45.66	1.19	2,900
La.	214,645	1.28	188,845	1.30	87.98	2.75	5,903
S. C.	146,727	.88	146,861	1.01	100.09	3.08	4,519
Wash.	143,724	.86	63,761	.44	44.36	1.62	2,328
Conn.	129,514	.77	71,615	.49	55.30	1.98	2,564
Wis.	126,726	.76	112,588	.78	88.84	1.52	1,926
Ky.	112,075	.67	147,172	1.02	131.32	1.72	1,928
Ohio	92,908	.56	77,504	.54	83.42	1.35	1,254
Okla.	83,306	.50	64,966	.45	77.98	2.75	2,291
Ida.	36,470	.22	27,991	.19	76.75	1.86	678
Other***	736,953	4.41	401,960	2.78	54.54	1.89	13,914
U. S.	16,712,122	100.00	14,481,357	100.00	86.65	2.33	389,392

*See Table 1.

**State production multiplied by the percent condemnation.

***Ariz., Cal., Fla., Hawaii, Ill., Iowa, Kan., Mass., Mich., Minn., Neb., N. H., N. J., N. Y., Ore., R. I., Utah, Vt., and W. Va.

Source: 1. Monthly Reports of Broilers Slaughtered Under Federal Inspection, Statistical Reporting Service, USDA, 1959 to 1967.

2. Agricultural Statistics, USDA, 1959 to 1967.

NOTE: The above sources apply to each succeeding Appendix.

APPENDIX B
Percent of condemned broilers, rejected under Federal inspection, by various causes, by states, 1961-66 average

States	Air-sac.	Sept-icemia	Leu-kosis	Syno-vitis	Contami-nation	Cadavers	Bruises	Over-scald	Tumors	Other Causes
Ala.	54.2	13.7	7.9	4.0	4.8	2.7	.6	.3	.3	11.5
Wis.	53.8	17.9	4.0	6.6	4.6	4.6	3.2	.6	.7	4.0
Miss.	52.7	9.5	11.7	4.1	5.7	3.5	1.3	.5	.3	10.7
Ark.	49.2	19.4	11.5	4.6	3.4	3.9	.9	.4	.3	6.4
Mo.	49.2	20.5	8.1	11.0	3.5	3.4	.9	.4	.2	2.8
Ky.	46.0	22.4	5.2	6.6	4.4	4.6	2.6	1.2	.3	6.7
La.-Okla.	45.0	24.9	11.5	6.4	4.0	3.4	1.4	.4	.5	2.5
Tex.	44.3	20.4	8.2	9.3	4.9	4.4	1.7	.5	.7	5.6
Ga.	40.9	13.0	16.6	4.4	6.5	2.8	.9	.4	.3	14.2
Cal.	40.7	18.9	12.5	7.3	4.5	1.9	.8	.5	.5	12.4
Va.	40.6	22.5	20.1	6.3	2.6	2.0	.5	.3	.1	5.0
Ind.	39.6	23.9	7.5	9.9	7.3	4.9	2.0	.9	.4	3.6
Tenn.	38.1	14.6	11.5	5.3	6.8	4.2	.8	.3	.2	18.2
Ida.*	36.8	28.4	8.9	2.0	5.3	3.0	2.7	1.2	.4	11.3
N. C.	35.9	17.5	15.2	5.5	5.4	4.1	1.1	.5	.3	14.5
S. C.	33.4	12.7	30.1	2.7	4.7	3.6	.9	.4	.1	11.4
Pa.	31.6	21.8	30.8	4.2	2.9	2.2	.5	.4	.3	5.3
Ohio	31.0	32.2	6.2	8.0	5.7	5.7	1.2	.6*	.8	8.6
Md.	29.9	16.4	36.5	5.6	2.5	2.4	.6	.4	.3	5.4
Del.	30.0	15.2	39.9	5.6	2.5	1.7	.4	.2	.3	4.2
Wash.	24.2	38.5	3.1	8.0	3.7	3.4	1.0	.8	.4	16.9
Conn.*	22.1	27.5	27.0	6.3	9.0	1.0	.7	.1	.5	5.8
Me.	17.4	30.0	31.9	8.2	3.7	3.0	1.0	.3	.3	4.2
Other	31.7	25.6	13.2	6.4	4.9	3.7	1.2	.4	.7	12.2
U. S.	41.44	17.17	17.31	5.40	4.62	3.19	.95	.41	.33	9.18

*Condemnation data available for less than 6 years.

APPENDIX C

Proportion of broilers slaughtered under Federal inspection, in relation to number produced, by states, 1959 to 1966

States	1959	1960	1961	1962	1963	1964	1965	1966
	Broilers Federally inspected as a percentage of production							
Pa.	176.9	184.6	168.9	176.6	184.5	191.9	196.2	198.5
Tenn.	138.0	161.6	163.8	162.3	142.5	129.5	124.7	122.6
Ky.	*	121.6	152.1	151.9	165.9	185.2	195.5	135.9
Mo.	112.1	141.9	118.9	109.5	127.9	131.1	122.0	164.7
S. C.	69.3	59.0	74.7	89.3	100.3	121.3	147.2	147.8
Me.	93.4	98.5	97.2	98.5	99.1	96.8	96.1	96.3
Va.	89.2	89.4	99.4	104.8	111.1	98.5	92.6	85.3
N. C.	84.4	95.1	93.8	91.9	91.5	96.3	96.0	95.2
Ark.	87.1	91.9	90.2	90.5	94.0	91.0	90.8	88.4
La.-Okla.	*	80.7	81.9	93.4	86.1	87.0	120.1	111.8
Md.	88.9	88.2	96.9	85.2	85.4	90.2	83.6	90.6
Miss.	70.7	73.9	84.8	89.0	92.4	94.9	90.8	87.3
Ohio	92.2	120.8	128.1	96.1	81.1	59.6	41.7	12.0
Ga.	86.6	85.2	84.7	85.4	84.5	85.6	86.1	83.0
Del.	76.2	75.5	81.6	88.4	79.1	77.7	82.0	78.6
Wis.	68.5	78.8	84.2	86.0	100.9	106.8	85.2	102.7
Ala.	85.9	81.5	82.3	82.3	78.3	77.9	78.7	78.0
Tex.	63.5	66.1	69.8	75.5	77.4	86.4	82.7	86.1
Ida.	*	85.3	101.6	99.0	87.8	82.6	99.4	45.7
Conn.	58.3	70.3	70.5	74.9	42.1	73.4	14.5	*
Cal.	43.4	52.5	52.4	52.0	45.4	47.0	45.5	45.4
Ind.	38.4	52.8	49.4	47.5	44.2	41.3	48.3	41.3
Wash.	40.0	38.8	40.1	52.4	48.1	47.0	42.9	44.9
Other	60.4	54.9	50.2	40.6	47.9	41.0	46.9	49.4
U. S.	81.5	85.4	86.7	87.1	87.3	88.6	88.2	84.8

*Incomplete data or no broilers Federally inspected.

APPENDIX D

Percent of inspected broilers condemned under Federal inspection, by months, Tennessee and United States, 1959-66 average

Years	Area	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Condemnation percent														
1959	Tenn.	1.44	1.34	1.21	1.20	1.29	1.47	1.22	1.26	1.38	1.17	1.87	2.80	1.45
	U. S.	1.56	1.89	1.53	1.52	1.25	1.16	1.18	1.15	1.19	1.27	1.86	2.70	1.47
1960	Tenn.	3.13	3.77	4.50	3.53	2.81	2.63	2.33	2.75	2.63	2.00	3.34	2.22	2.94
	U. S.	2.93	3.14	3.50	2.92	2.51	2.07	1.83	2.13	2.02	2.15	2.82	2.38	2.49
1961	Tenn.	2.60	2.43	2.10	2.39	2.12	1.89	1.94	1.75	2.04	2.52	2.58	2.90	2.21
	U. S.	2.28	2.17	1.96	1.99	1.86	1.67	1.61	1.62	1.60	1.75	2.21	2.60	1.90
1962	Tenn.	4.66	3.86	2.40	2.26	1.92	1.46	1.22	1.37	1.26	1.53	2.63	3.34	2.19
	U. S.	3.04	2.79	2.61	2.23	1.97	1.66	1.52	1.54	1.50	1.61	2.09	2.63	2.04
1963	Tenn.	3.72	3.31	2.23	2.39	2.09	1.65	1.56	1.32	1.43	1.79	2.20	2.31	2.09
	U. S.	2.98	2.95	2.59	2.20	1.85	1.81	1.84	1.77	1.76	1.83	2.10	2.83	2.17
1964	Tenn.	2.66	2.82	3.23	2.08	1.61	1.75	1.57	1.29	1.35	1.65	1.72	2.29	1.92
	U. S.	3.27	3.27	3.12	2.55	2.05	1.83	1.78	1.71	1.65	1.86	2.17	2.68	2.29
1965	Tenn.	3.08	2.88	2.38	1.63	1.32	1.25	1.35	1.58	1.55	1.40	1.95	2.84	1.87
	U. S.	2.99	2.99	2.78	2.44	2.17	2.00	1.92	1.96	2.00	2.13	2.61	3.25	2.40
1966	Tenn.	2.86	3.14	2.57	2.66	2.03	2.43	2.59	2.39	2.58	2.52	4.08	8.43	3.13
	U. S.	3.61	4.11	3.61	3.72	3.23	2.89	2.70	2.71	2.94	3.16	3.83	4.76	3.40
1959-66	Tenn.	3.11	2.98	2.60	2.29	1.93	1.84	1.75	1.74	1.80	1.83	2.59	3.62	2.26
	U. S.	2.91	3.00	2.77	2.49	2.14	1.93	1.83	1.87	1.89	2.02	2.53	3.10	2.33
1967	Tenn.	7.09	4.86	4.69	3.61	3.60	3.50	3.25	3.08	2.14	2.05	2.66	3.36	3.64
	U. S.	5.13	4.64	4.48	3.72	3.67	3.31	2.95	2.73	2.72	2.93	3.49	3.71	3.59

*Preliminary estimate for season average.

APPENDIX E

Percent of condemned broilers rejected under Federal inspection because of airsacculitis, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of airsacculitis							
Ala.	62.3	64.1	53.1	45.9	44.0	54.4	54.2
Wis.	39.4	49.4	61.9	60.4	62.4	46.0	53.8
Miss.	59.0	52.9	47.2	54.3	52.0	53.6	52.7
Ark.	43.7	48.8	61.5	57.6	52.0	38.8	49.2
Mo.	42.6	43.6	48.9	51.2	48.5	54.9	49.2
Ky.	40.0	53.0	49.4	44.2	39.5	50.6	46.0
La.-Okla.	38.9	40.5	52.1	55.9	52.5	35.2	45.0
Tex.	38.1	32.9	44.6	49.0	47.2	45.4	44.3
Ga.	55.9	48.4	39.0	36.8	34.2	36.9	40.9
Cal.	38.4	46.1	37.1	35.1	34.0	48.9	40.7
Va.	41.2	29.0	36.6	54.1	44.2	35.6	40.6
Ind.	36.4	43.7	37.6	38.1	44.9	37.7	39.6
Tenn.	47.0	40.8	31.1	23.9	32.8	44.8	38.1
Ida.	20.7	39.0	41.5	56.2*	31.2	31.0*	36.8
N. C.	21.8	35.4	35.7	39.4	37.5	38.2	35.9
S. C.	28.3	52.6	38.7	36.6	25.1	28.6	33.4
Pa.	35.2	26.2	22.2	27.6	34.0	34.9	31.6
Ohio	26.4	38.3	31.1	31.2	34.9	15.9	31.0
Del.	24.9	28.5	26.3	27.4	32.2	33.1	30.0
Md.	30.2	24.2	24.5	24.2	34.4	33.5	29.9
Wash.	28.3	17.0	19.5	21.6	28.1	19.0	24.2
Conn.	23.9	19.2	9.6*	20.4	36.4*	21.9*	22.1
Me.	11.5	19.7	13.6	13.2	12.2	24.9	17.4
Other	36.4	29.4	28.6	39.0	24.2	31.1	31.7
U. S.	43.8	43.8	41.8	41.8	39.9	39.9	41.4

*Estimated from data for less than 1 year.

APPENDIX F

Percent of condemned broilers rejected under Federal inspection because of septicemia, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of septicemia							
Wash.	34.5	48.1	44.1	41.0	33.5	33.1	38.5
Ohio	41.8	27.9	19.2	32.0	27.7	36.9	32.2
Me.	56.8	42.4	24.5	22.2	22.5	23.1	30.0
Ida.	32.6	27.7	28.6	18.1*	27.7	35.2*	28.4
Conn.	32.3	30.1	32.7*	26.4	15.5*	27.5*	27.5
La.-Okla.	35.2	31.7	19.8	20.7	22.4	26.1	24.9
Ind.	27.0	30.0	22.2	14.6	19.9	20.4	23.9
Va.	37.5	38.9	14.0	10.2	17.6	21.2	22.5
Ky.	35.6	19.4	17.3	17.5	22.5	18.6	22.4
Pa.	40.2	38.7	19.7	18.4	18.8	16.4	21.8
Mo.	28.2	28.3	10.2	16.6	25.5	16.7	20.5
Tex.	28.7	28.5	18.3	15.8	19.6	19.9	20.4
Ark.	32.2	21.9	6.6	18.0	21.9	20.1	19.4
Cal.	27.5	20.5	10.3	18.3	25.4	15.2	18.9
Wis.	19.6	21.1	9.9	7.9	20.1	27.9	17.9
N. C.	11.8	5.1	12.2	19.0	22.2	22.7	17.5
Md.	34.9	29.4	7.8	13.4	15.3	13.7	16.4
Del.	39.4	29.1	11.8	12.3	11.3	8.6	15.2
Tenn.	12.6	9.5	8.7	20.0	20.8	16.6	14.6
Ala.	6.3	2.6	8.8	19.6	23.1	18.2	13.7
Ga.	9.7	3.2	7.9	18.6	19.5	15.4	13.0
S. C.	11.2	1.7	10.2	17.8	17.1	13.2	12.7
Miss.	10.1	5.5	8.5	10.7	12.0	10.1	9.5
Other	24.0	26.7	22.3	21.8	32.4	26.0	25.6
U. S.	21.9	15.5	11.0	17.1	19.7	17.6	17.2

*Estimated from data for less than 1 year.

APPENDIX G

Percent of condemned broilers rejected under Federal inspection because of leukosis, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of leukosis							
Del.	18.9	23.8	31.4	44.3	45.6	49.9	39.9
Md.	13.5	19.2	26.1	45.1	38.6	44.3	36.5
Me.	12.5	14.5	24.6	40.5	45.9	39.1	31.9
Pa.	12.6	18.8	21.2	34.3	35.0	38.8	30.8
S. C.	1.8	.8	8.4	26.5	44.8	47.5	30.1
Conn.	20.7	33.4	30.2*	30.8	18.0*	26.6*	27.0
Va.	8.0	12.7	6.4	16.2	29.2	35.9	20.1
Ga.	4.2	3.7	8.8	20.9	24.8	27.9	16.6
N. C.	7.1	3.8	9.5	15.7	18.3	21.9	15.2
Cal.	1.6	1.9	6.8	18.3	24.1	22.6	12.5
Miss.	4.5	5.8	10.0	15.8	14.2	16.6	11.7
Tenn.	2.8	4.0	8.1	20.5	19.9	15.6	11.5
Ark.	4.2	3.2	3.1	5.2	8.8	28.0	11.5
La.-Okla.	7.0	6.1	4.6	4.3	6.9	23.4	11.5
Ida.	.8	1.0	1.1	9.9*	22.4	17.6*	8.9
Tex.	9.9	8.3	7.5	6.3	7.9	11.8	8.2
Mo.	2.8	2.2	2.3	4.8	10.4	16.4	8.1
Ala.	1.6	2.2	6.3	13.1	11.5	12.1	7.9
Ind.	4.9	6.8	6.0	8.2	9.9	9.8	7.5
Ohio	6.1	5.1	4.6	7.5	7.9	11.4	6.2
Ky.	3.2	3.2	4.2	7.4	7.8	6.9	5.2
Wis.	1.2	1.8	2.1	2.9	4.4	9.3	4.0
Wash.	2.8	2.8	3.1	3.6	2.4	3.6	3.1
Other	6.8	9.0	9.2	10.9	18.8	21.1	13.2
U. S.	6.0	6.5	10.2	18.7	21.9	27.2	17.3

*Estimated from data for less than 1 year.

APPENDIX H

Percent of condemned broilers rejected under Federal inspection because of synovitis, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of synovitis							
Mo.	14.7	13.2	16.4	17.3	4.7	5.0	11.0
Ind.	12.4	6.9	10.1	14.0	5.2	12.9	9.9
Tex.	9.7	8.7	10.6	14.3	7.6	6.2	9.3
Me.	8.0	13.6	9.7	11.5	6.6	3.7	8.2
Wash.	5.3	4.7	9.8	12.9	9.7	4.0	8.0
Ohio	10.1	8.2	8.5	8.4	2.2	1.2	8.0
Cal.	10.6	8.1	8.7	11.7	3.7	2.1	7.3
Ky.	7.1	3.8	4.2	15.5	5.0	3.7	6.6
Wis.	9.1	6.1	8.0	14.9	1.4	2.0	6.6
La.-Okla.	5.1	6.7	8.8	8.9	8.3	3.2	6.4
Va.	8.8	9.0	8.2	12.7	2.3	1.3	6.3
Conn.	6.8	8.2	3.3*	6.5	5.7*	6.1*	6.3
Del.	10.5	10.2	9.2	8.2	2.5	1.8	5.6
Md.	9.0	8.0	9.0	8.8	4.7	2.0	5.6
N. C.	3.4	2.3	7.9	12.9	4.4	3.3	5.5
Tenn.	2.5	1.4	7.0	12.3	6.2	4.3	5.3
Ark.	4.8	4.6	5.5	8.5	3.9	2.3	4.6
Ga.	1.6	1.5	6.0	9.5	4.1	3.6	4.4
Pa.	3.9	7.0	8.7	8.1	2.8	1.3	4.2
Miss.	2.1	.4	5.2	7.3	4.6	2.8	4.1
Ala.	1.2	.1	3.6	10.6	5.6	3.9	4.0
S. C.	2.5	.5	3.6	7.2	1.9	1.6	2.7
Ida.	1.1	1.8	3.9	4.3*	.6	.4*	2.0
Other	4.8	7.9	7.1	10.6	6.6	4.1	6.4
U. S.	4.9	4.3	7.0	10.2	4.5	3.1	5.4

*Estimated from data for less than 1 year.

APPENDIX I

Percent of condemned broilers rejected under Federal inspection because of contamination, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of contamination							
Conn.	8.5	6.9	9.6*	8.3	11.7*	9.0*	9.0
Ind.	3.7	4.4	7.3	12.8	9.0	7.6	7.3
Tenn.	3.3	7.6	8.2	7.6	6.9	7.4	6.8
Ga.	4.3	5.2	8.2	7.4	6.4	6.7	6.5
Ohio	5.0	4.4	4.6	6.8	10.6	19.9	5.7
Miss.	5.2	6.1	6.0	5.4	5.7	5.9	5.7
N. C.	4.2	4.6	5.0	5.3	6.9	6.4	5.4
Ida.	6.7	4.8	4.7	3.1*	8.5	4.0*	5.3
Tex.	5.8	7.6	4.9	4.0	4.5	4.6	4.9
Ala.	3.0	3.5	5.4	6.0	6.1	4.8	4.8
S. C.	6.3	5.2	6.3	6.5	3.6	3.5	4.7
Wis.	6.5	4.5	3.3	3.8	3.9	5.6	4.6
Cal.	6.1	4.3	5.6	9.6	4.3	2.8	4.5
Ky.	3.1	4.3	3.4	3.5	4.9	7.2	4.4
La.-Okla.	5.5	6.2	3.9	3.6	3.2	4.0	4.0
Me.	4.2	4.4	4.0	3.9	3.3	3.1	3.7
Wash.	2.9	2.8	4.4	3.0	2.8	5.9	3.7
Mo.	4.2	5.8	3.9	3.0	3.2	2.0	3.5
Ark.	3.0	3.3	3.3	3.6	4.3	3.0	3.4
Pa.	2.0	2.6	3.3	3.7	3.0	2.6	2.9
Va.	2.0	2.4	2.7	2.3	3.3	2.8	2.6
Del.	1.6	1.9	2.2	3.1	2.9	2.6	2.5
Md.	2.2	2.8	2.6	2.9	2.5	2.4	2.5
Other	4.2	4.6	5.2	3.1	6.2	5.4	4.9
U. S.	3.8	4.5	5.1	4.9	4.8	4.5	4.6

*Estimated from data for less than 1 year.

APPENDIX J

Percent of condemned broilers, rejected under Federal inspection because of cadavers, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of cadavers							
Ohio	6.4	4.4	7.3	5.3	5.2	4.7	5.7
Ind.	3.7	3.2	4.3	5.3	7.1	7.5	4.9
Ky.	4.8	5.3	3.4	4.4	4.8	4.5	4.6
Wis.	8.1	7.0	3.5	4.3	2.5	3.3	4.6
Tex.	4.1	6.2	5.1	4.6	3.5	3.9	4.4
Tenn.	3.8	6.2	4.7	4.6	3.4	3.2	4.2
N. C.	4.6	4.3	4.3	4.4	5.0	3.0	4.1
Ark.	5.1	4.7	3.9	3.9	3.9	3.2	3.9
S. C.	6.6	5.0	4.9	3.6	3.5	2.0	3.6
Miss.	4.1	3.1	3.3	2.3	4.2	4.1	3.5
La.-Okla.	5.0	4.3	4.3	3.9	2.5	2.8	3.4
Mo.	5.9	3.5	3.1	3.8	3.7	1.7	3.4
Wash.	1.5	1.5	4.5	4.9	2.7	4.4	3.4
Ida.	5.3	5.8	3.0	1.7*	1.2	.9*	3.0
Me.	3.2	2.3	2.2	4.1	3.6	2.7	3.0
Ga.	2.5	2.5	2.7	2.6	3.6	2.9	2.8
Ala.	2.3	2.5	2.7	2.8	3.6	2.5	2.7
Md.	2.8	3.1	3.6	2.4	1.8	2.0	2.4
Pa.	2.0	2.5	2.9	2.7	2.2	1.9	2.2
Va.	1.1	1.3	2.6	2.9	2.0	2.0	2.0
Cal.	2.2	1.4	1.3	2.6	3.4	1.3	1.9
Del.	2.0	1.9	2.0	1.9	1.8	1.4	1.7
Conn.	2.4	.9	1.3*	1.2	.9*	1.3*	1.0
Other	5.6	4.6	3.0	2.2	3.6	2.9	3.7
U. S.	3.5	3.4	3.3	3.2	3.4	2.8	3.2

*Estimated from data for less than 1 year.

APPENDIX K

Percent of condemned broilers, rejected under Federal inspection because of bruises, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
	Percent of condemned broilers because of bruises						
Wis.	4.4	3.0	2.4	3.1	2.7	3.4	3.2
Ida.	3.4	3.3	1.9	1.5*	2.5	3.6*	2.7
Ky.	3.4	2.6	2.0	3.0	2.5	1.9	2.6
Ind.	1.9	1.6	1.8	2.6	2.1	2.3	2.0
Tex.	1.6	1.8	1.9	1.5	1.7	1.8	1.7
La.-Okla.	1.4	2.0	1.5	1.6	1.3	1.3	1.4
Miss.	1.0	.9	.9	1.0	1.7	1.9	1.3
Ohio	1.2	1.3	1.3	1.2	1.0	1.1	1.2
N. C.	1.0	1.0	1.1	1.0	1.4	1.3	1.1
Me.	2.2	1.6	1.0	.9	.8	.5	1.0
Wash.	.9	.9	.8	1.1	1.0	1.4	1.0
S. C.	1.2	.7	1.2	1.0	1.1	.8	.9
Mo.	.9	1.0	1.2	1.0	1.0	.7	.9
Ark.	1.0	.9	.8	1.0	1.1	.9	.9
Ga.	.5	.5	.7	1.1	1.3	1.2	.9
Cal.	1.0	.8	.7	.6	1.0	.6	.8
Tenn.	.8	.7	.8	.9	.8	.9	.8
Conn.	.9	.7	.6*	.5	.8*	.7*	.7
Ala.	.3	.4	.6	.7	.9	1.0	.6
Md.	.6	.7	.8	.6	.5	.4	.6
Pa.	.6	.7	.6	.6	.4	.4	.5
Va.	.5	.4	.4	.4	.5	.6	.5
Del.	.5	.4	.5	.5	.4	.3	.4
Other	1.2	1.3	.9	.8	1.3	1.3	1.2
U. S.	.9	.8	.9	1.0	1.1	1.0	1.0

*Estimated from data for less than 1 year.

APPENDIX L

Percent of condemned broilers, rejected under Federal inspection because of overscald, by states, 1961 to 1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of overscald							
Ky.	2.17	1.36	.87	.57	1.12	1.24	1.24
Ida.	1.50	2.10	1.27	.45*	.94	1.26*	1.18
Ind.	.86	1.17	1.18	1.17	.52	.56	.92
Wash.	.37	.70	.92	.99	.73	.96	.80
Wis.	.71	.24	.31	1.00	.70	.66	.61
Ohio	.50	.50	.25	1.43	1.56	.68	.57
Miss.	.76	.57	.36	.41	.77	.48	.54
Cal.	1.36	.57	.28	.40	.59	.23	.54
N. C.	.67	.39	.38	.44	.66	.53	.51
Tex.	.57	.71	.37	.36	.50	.47	.48
La.-Okla.	.45	.53	.61	.32	.59	.35	.44
S. C.	.50	.31	.48	.31	.46	.50	.42
Ark.	.42	.39	.37	.29	.48	.48	.42
Pa.	.38	.44	.59	.30	.45	.34	.40
Ga.	.55	.38	.33	.43	.39	.37	.40
Md.	.65	.59	.24	.25	.35	.39	.38
Mo.	.35	.25	.42	.45	.56	.23	.35
Va.	.55	.51	.40	.21	.16	.21	.34
Tenn.	.26	.44	.38	.22	.17	.31	.30
Ala.	.21	.23	.24	.27	.44	.36	.30
Me.	.28	.26	.20	.23	.57	.18	.28
Del.	.23	.25	.36	.17	.21	.16	.22
Conn.	.17	.10	.10*	.10	.05*	.10*	.09
Other	.46	.38	.28	.13	.41	.59	.38
U. S.	.52	.42	.36	.34	.47	.40	.41

*Estimated from data for less than 1 year.

APPENDIX M

Percent of condemned broilers, rejected under Federal inspection because of tumors, by states, 1961-1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers because of tumors							
Ohio	.63	.61	.56	1.18	1.16	2.00	.79
Wis.	.69	.65	.48	.73	.74	.93	.70
Tex.	.92	.97	.66	.53	.73	.62	.68
La.-Okla.	1.29	.97	.56	.42	.38	.33	.54
Cal.	1.10	.88	.39	.24	.30	.31	.52
Conn.	.34	.33	.20*	.55	.77*	.50*	.45
Ind.	1.13	.34	.15	.29	.36	.21	.41
Wash.	.25	.22	.24	.56	.64	.50	.41
Ida.	.41	1.27	.29	.21*	.24	.19*	.38
Me.	.69	.31	.34	.32	.35	.20	.34
Miss.	.27	.23	.25	.35	.51	.40	.33
Md.	.44	.58	.45	.39	.28	.19	.32
Ky.	.24	.19	.18	.21	.39	.70	.32
Ark.	.38	.31	.27	.34	.33	.28	.31
Ala.	.16	.09	.19	.37	.55	.43	.29
N. C.	.45	.19	.22	.29	.37	.25	.28
Del.	.43	.43	.38	.28	.22	.14	.27
Pa.	.33	.34	.32	.30	.26	.19	.26
Ga.	.22	.11	.16	.28	.38	.36	.26
Mo.	.20	.23	.26	.20	.17	.10	.18
Tenn.	.17	.08	.12	.24	.25	.14	.16
S. C.	.15	.06	.10	.14	.15	.13	.12
Va.	.16	.17	.07	.06	.05	.05	.08
Other	.70	.61	.51	.82	.68	.68	.67
U. S.	.38	.29	.28	.33	.37	.30	.33

*Estimated from data for less than 1 year.

APPENDIX N

Percent of condemned broilers rejected under Federal inspection for undefined causes, by states, 1961-1966

States	1961	1962	1963	1964	1965	1966	Average
Percent of condemned broilers—undefined causes							
Tenn.	26.8	28.6	30.9	9.7	8.8	6.7	18.2
Wash.	23.1	21.3	12.7	10.3	18.5	27.1	16.9
N. C.	44.9	42.9	23.7	1.6	3.2	2.4	14.5
Ga.	20.6	34.5	26.2	2.4	5.3	4.6	14.2
Cal.	10.1	15.4	28.8	3.2	3.2	6.0	12.4
Ala.	22.6	24.3	19.1	6	4.2	2.3	11.5
S. C.	41.4	33.1	26.1	4	2.2	2.2	11.4
Ida.	27.5	13.2	13.7	4.5*	4.8	5.8*	11.3
Miss.	13.1	24.5	18.3	2.6	4.3	4.1	10.7
Ohio	1.9	9.3	22.6	6.0	7.7	6.2	8.6
Ky.	.3	6.8	15.0	3.7	11.5	4.7	6.7
Ark.	5.1	12.0	14.7	1.6	3.3	3.0	6.4
Conn.	4.0	.2	12.4*	5.2	10.1*	6.3*	5.8
Tex.	.6	4.3	6.1	3.6	6.8	5.3	5.6
Md.	5.7	11.4	24.9	2.0	1.6	1.1	5.4
Pa.	2.8	2.7	20.5	4.0	3.0	3.1	5.3
Va.	2	5.6	28.6	.9	.6	.3	5.0
Me.	.6	.9	19.9	3.2	4.1	2.5	4.2
Del.	1.6	3.5	15.8	1.8	2.9	2.0	4.2
Wis.	10.3	6.2	8.1	1.0	1.2	.9	4.0
Ind.	8.0	1.9	9.4	2.9	1.0	1.0	3.6
Mo.	.2	1.9	13.2	1.6	2.3	2.3	2.8
La.-Okla.	.1	1.0	4.0	.4	1.9	3.3	2.5
Other	15.8	15.5	22.9	10.7	5.8	6.8	12.2
U. S.	14.3	20.5	20.0	2.5	3.8	3.2	9.2

*Estimated from data for less than 1 year.

APPENDIX O

Broiler production and post mortem condemnations in the United States, 1961 to 1966

States	Broilers under Federal inspection						
	Broilers produced		Inspected		Percent Condem- of prod. nations		Condemnations total**
					%	%*	
(000)	%	(000)	%	%	%*	(000)	
Ga.	2,294,402	17.41	1,946,396	16.88	84.83	2.47	56,672
Ark.	1,699,527	12.89	1,540,978	13.36	90.67	2.52	42,828
Ala.	1,492,923	11.33	1,184,934	10.27	79.37	2.27	33,889
N. C.	1,317,391	10.00	1,240,925	10.76	94.20	2.17	28,587
Miss.	940,445	7.14	845,810	7.33	89.94	2.22	20,878
Tex.	814,471	6.18	652,061	5.65	80.06	2.21	18,000
Md.	784,788	5.95	693,885	6.02	88.42	2.74	21,503
Del.	621,460	4.72	503,635	4.37	81.04	2.83	17,587
Me.	392,813	2.98	382,227	3.31	97.31	2.07	8,131
Cal.	367,611	2.79	176,192	1.53	47.93	3.59	13,197
Va.	290,394	2.20	285,637	2.48	98.36	2.49	7,231
Pa.	240,658	1.83	451,337	3.91	187.54	2.66	6,402
Tenn.	237,978	1.81	329,441	2.86	138.43	2.26	5,378
Mo.	196,965	1.49	248,591	2.16	126.21	2.97	5,850
La.	172,748	1.31	165,734	1.44	95.94	2.69	4,647
Ind.	168,031	1.27	76,997	.67	45.82	1.34	2,252
S. C.	112,251	.85	124,778	1.08	111.16	3.32	3,727
Wash.	112,234	.85	51,354	.45	45.76	1.61	1,807
Wis.	88,943	.67	82,821	.72	93.12	1.73	1,539
Conn.	80,617	.61	40,461	.35	50.19	2.22	1,790
Ky.	77,980	.59	127,087	1.10	162.97	1.74	1,357
Okla.	69,138	.53	66,331	.57	95.94	2.69	1,860
Ohio	61,733	.47	45,827	.40	74.23	1.71	1,056
Ida.	29,272	.22	24,706	.21	84.40	1.90	556
Other	515,494	3.91	244,580	2.12	47.45	2.12	10,920
U. S.	13,180,267	100.00	11,532,725	100.00	87.50	2.41	317,644

*1961-66 average condemnation percent of broilers processed under Federal inspection.

**State production multiplied by the percent condemnation.

APPENDIX P

Percent of inspected broilers condemned under Federal inspection because of airsacculitis, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for airsacculitis												
Mo.	2.25	2.51	2.23	1.78	1.29	.86	.91	.81	.73	.87	1.47	2.33	1.46
Cal.	2.26	2.32	1.92	1.58	1.27	1.10	1.17	.93	.70	.85	1.24	2.21	1.46
Ark.	1.78	1.82	1.62	1.40	1.11	.92	.87	.93	.90	.91	1.28	1.79	1.24
Ala.	2.03	1.94	1.63	1.40	1.08	.89	.77	.79	.81	.91	1.28	1.90	1.23
La.-Okla.	1.62	1.89	2.01	1.48	1.09	.80	.84	.97	.88	.71	.96	1.76	1.21
Miss.	2.06	2.04	1.64	1.29	.88	.76	.73	.74	.84	.95	1.12	1.59	1.17
S. C.	1.88	1.68	1.18	1.23	.71	.59	.65	.87	1.18	1.08	1.17	1.69	1.11
Va.	1.35	1.52	1.14	1.04	.78	.89	.76	.65	.65	.94	1.10	1.61	1.01
Ga.	1.74	1.77	1.48	1.23	.89	.64	.56	.61	.56	.66	1.04	1.52	1.01
Tex.	1.51	1.81	1.54	1.10	.70	.65	.71	.85	.72	.65	.78	1.32	.98
Wis.	1.51	1.37	.98	.66	1.21	.69	.59	.64	.41	.97	.80	1.10	.93
Tenn.	1.61	1.56	1.11	.88	.57	.43	.43	.44	.48	.55	.93	2.11	.86
Del.	1.26	1.20	1.12	.93	.78	.59	.59	.50	.52	.57	.98	1.35	.85
Pa.	1.12	1.02	1.08	.95	.89	.72	.58	.53	.51	.60	1.01	1.27	.84
Md.	1.02	1.14	.98	.97	.80	.63	.59	.49	.56	.68	.94	1.25	.82
Ky.	1.76	1.77	1.25	.78	.61	.45	.41	.39	.38	.48	.77	1.45	.80
N. C.	1.21	1.37	1.12	.93	.67	.52	.46	.48	.50	.53	.78	1.17	.78
Ida.	1.11	1.43	.81	.57	.51	.66	.57	.29	.30	.76	.92	.59	.70
Ind.	.77	1.04	.81	.73	.76	.33	.22	.26	.25	.23	.57	.77	.53
Ohio	.63	.74	.84	.56	.56	.41	.35	.37	.28	.27	.49	.87	.53
Conn.	1.08	1.06	.81	.70	.36	.33	.11	.12	.07	.10	.25	.60	.49
Wash.	.54	.44	.51	.34	.31	.21	.22	.27	.23	.30	.51	.62	.39
Me.	.37	.57	.59	.49	.40	.34	.18	.16	.16	.28	.35	.36	.36
U. S.	1.56	1.61	1.38	1.14	.87	.69	.64	.65	.67	.71	1.02	1.50	1.00

APPENDIX Q

Percent of inspected broilers condemned under Federal inspection because of septicemia, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
Cal.	77	74	74	74	65	71	60	66	59	54	66	78	68
La.-Okla.	62	60	63	61	59	64	64	67	73	71	73	84	67
Wash.	85	86	77	63	63	46	46	49	51	57	62	78	62
Me.	90	73	64	64	62	52	43	41	50	58	69	79	62
Conn.	83	86	62	88	65	65	57	37	54	51	61	75	61
Mo.	75	79	70	64	53	49	44	45	57	57	74	85	61
Pa.	75	71	65	58	49	51	47	45	52	57	68	75	58
Va.	65	63	62	57	49	51	46	45	55	59	64	65	56
Ohio	70	71	65	54	47	48	47	33	43	48	59	76	55
Ida.	53	59	78	58	58	59	30	39	44	48	50	44	54
Ark.	54	53	50	45	43	42	41	44	50	50	55	64	49
Tex.	53	52	45	44	40	39	38	47	43	44	50	63	45
Md.	48	49	46	43	40	36	37	38	42	46	60	58	45
Del.	60	50	47	43	38	33	34	33	37	42	47	50	43
S. C.	42	48	44	42	35	42	39	35	44	44	46	49	42
Ky.	59	54	44	46	39	34	31	29	28	32	38	46	39
N. C.	46	46	40	38	31	33	31	31	35	37	45	55	38
Tenn.	39	37	35	33	30	30	27	24	31	34	43	46	33
Ind.	36	37	37	39	36	28	25	25	23	30	33	41	32
Ga.	36	35	32	29	24	25	24	26	35	35	41	47	32
Wis.	38	34	30	27	27	24	21	27	29	35	37	45	31
Ala.	32	30	30	27	25	24	25	26	33	35	41	45	31
Miss.	25	22	19	17	15	18	20	20	25	25	25	27	21
U. S.	49	47	43	40	35	35	34	35	42	42	49	56	41

APPENDIX R

Percent of inspected broilers condemned under Federal inspection because of leukosis, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
Percent of broilers condemned for leukosis													
Del.	97	1.00	1.08	1.19	1.12	1.11	.99	1.02	1.20	1.21	1.38	1.38	1.13
S. C.	91	96	98	1.29	1.17	.95	.77	.83	.97	99	1.22	1.09	1.00
Md.	82	86	90	1.01	1.02	1.03	.84	.85	1.00	1.12	1.23	1.24	1.00
Pa.	70	76	.84	.75	.77	.80	.74	.74	.84	.91	1.02	1.06	.82
Me.	61	.57	.62	.75	.66	.75	.63	.61	.64	.68	.74	.76	.66
Conn.	67	64	.60	.69	.56	.68	.56	.43	.56	.63	.65	.70	.60
Va.	38	47	42	.49	.46	.47	.43	.43	.53	.59	.69	.71	.50
Cal.	29	31	30	.27	.41	.49	.46	.60	.60	.55	.55	.52	.45
Ga.	36	43	43	.44	.40	.38	.35	.34	.37	.40	.51	.61	.41
N. C.	27	.34	.34	.36	.31	.30	.26	.28	.30	.34	.44	.46	.33
La.-Okla.	18	.19	.22	.44	.34	.22	.22	.30	.52	.40	.36	.36	.31
Ark.	20	.21	.29	.34	.34	.25	.23	.25	.27	.32	.40	.45	.29
Tenn.	27	.27	.25	.26	.23	.28	.27	.22	.23	.23	.33	.41	.26
Miss.	26	.27	.29	.28	.29	.29	.28	.23	.21	.23	.27	.31	.26
Mo.	16	.34	.22	.21	.25	.20	.19	.17	.22	.21	.30	.35	.24
Tex.	18	.18	.17	.18	.22	.19	.17	.22	.20	.21	.22	.25	.18
Ala.	15	.18	.19	.20	.18	.18	.17	.15	.16	.17	.21	.29	.17
Ida.	12	.11	.16	.19	.17	.24	.14	.11	.20	.24	.23	.17	.17
Ohio	11	.10	.20	.11	.09	.09	.09	.08	.09	.09	.11	.14	.11
Ind.	10	.09	.10	.11	.09	.07	.08	.09	.09	.12	.12	.13	.10
Ky.	13	.12	.11	.10	.08	.07	.07	.07	.07	.07	.08	.12	.09
Wis.	05	.05	.05	.04	.05	.06	.06	.08	.07	.09	.09	.11	.07
Wash.	05	.05	.05	.05	.04	.04	.04	.05	.04	.06	.05	.06	.05
U. S.	35	.39	.41	.44	.42	.40	.36	.36	.41	.43	.52	.57	.42

APPENDIX 5

Percent of inspected broilers condemned under Federal inspection because of synovitis, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for synovitis												
Mo.	478	380	408	361	367	287	225	243	268	309	270	342	327
Cal.	292	319	324	281	253	260	239	205	223	160	245	335	262
Tex.	239	259	238	254	215	186	162	176	171	214	204	202	206
La.-Okla.	201	202	185	202	158	167	121	130	165	189	165	199	172
Me.	205	182	182	194	177	181	146	136	124	150	173	174	170
Del.	183	202	193	191	165	147	130	120	129	136	144	162	158
Va.	157	159	197	143	157	144	133	148	145	183	175	157	157
Md.	170	175	155	152	160	155	140	142	136	152	152	148	153
Conn.	185	231	199	254	159	145	116	083	093	086	110	112	140
Ohio	150	127	163	136	151	134	105	106	140	130	122	183	136
Ind.	120	157	141	224	107	107	102	170	100	128	132	117	133
Wash.	127	146	120	141	105	110	103	093	115	179	195	147	129
Tenn.	142	117	099	083	093	126	127	112	141	122	123	148	120
N. C.	130	122	118	131	109	102	099	097	119	129	121	147	120
Ark.	122	111	106	120	110	119	107	112	119	119	123	122	116
Ky.	167	171	131	102	105	089	078	080	087	146	119	140	115
Wis.	100	098	123	117	109	113	093	090	098	140	162	128	114
Pa.	126	129	118	114	113	104	100	097	104	112	119	117	112
Go.	115	115	104	106	097	109	104	097	119	122	107	122	109
S. C.	113	154	093	126	066	058	047	068	085	112	096	095	090
Miss.	100	109	100	087	079	071	092	099	084	110	080	080	090
Ala.	086	094	101	095	099	081	079	077	092	092	090	103	090
Ida.	031	075	048	042	035	031	034	034	028	060	035	031	038
U. S.	146	147	139	139	127	123	113	111	128	135	129	140	130

APPENDIX T

Percent of inspected broilers condemned under Federal inspection because of contamination, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for contamination												
Conn.	.266	.248	.209	.144	.110	.141	.144	.165	.158	.190	.195	.256	.200
Cal.	.161	.161	.155	.165	.135	.142	.156	.183	.170	.156	.190	.169	.162
Ga.	.152	.154	.148	.137	.143	.158	.172	.180	.172	.165	.163	.169	.161
S. C.	.153	.143	.137	.151	.134	.131	.147	.173	.175	.174	.154	.206	.156
Tenn.	.149	.131	.135	.147	.146	.151	.160	.159	.152	.171	.192	.165	.154
Miss.	.122	.117	.105	.105	.114	.126	.145	.148	.133	.127	.131	.133	.127
N. C.	.109	.120	.104	.101	.110	.119	.129	.142	.140	.132	.143	.131	.124
Tex.	.102	.110	.098	.102	.107	.111	.114	.137	.117	.110	.103	.111	.108
La.-Okla	.090	.078	.076	.102	.108	.120	.119	.124	.143	.121	.098	.102	.108
Ohio	.102	.098	.094	.083	.092	.102	.109	.104	.118	.102	.129	.168	.106
Mo.	.112	.095	.098	.095	.093	.095	.111	.106	.106	.111	.107	.113	.104
Ala.	.103	.098	.090	.089	.098	.108	.122	.111	.113	.093	.091	.098	.102
Ida.	.089	.071	.080	.080	.089	.129	.102	.152	.106	.125	.107	.098	.101
Ind.	.098	.123	.108	.086	.064	.080	.081	.081	.086	.083	.093	.101	.089
Ark.	.086	.080	.079	.079	.079	.085	.095	.094	.094	.090	.087	.083	.086
Wis.	.087	.091	.076	.065	.071	.082	.085	.081	.072	.077	.084	.083	.080
Pa.	.072	.073	.079	.067	.068	.078	.078	.078	.076	.080	.078	.087	.077
Me.	.081	.077	.069	.064	.079	.081	.079	.081	.073	.072	.078	.079	.077
Ky.	.093	.079	.070	.068	.060	.068	.060	.067	.073	.072	.089	.095	.073
Del.	.064	.069	.072	.069	.075	.079	.071	.070	.072	.071	.066	.072	.070
Md.	.065	.066	.064	.058	.062	.067	.072	.072	.080	.076	.073	.074	.069
Va.	.063	.054	.057	.062	.064	.077	.071	.070	.065	.063	.065	.068	.065
Wash	.050	.048	.047	.044	.048	.059	.069	.078	.066	.066	.068	.062	.060
U. S.	.106	.105	.100	.097	.101	.111	.119	.124	.125	.115	.115	.116	.111

APPENDIX U

Percent of inspected broilers condemned under Federal inspection because of cadavers, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
Percent of broilers condemned for cadavers													
S. C.	.120	.117	.097	.135	.106	.115	.146	.110	.103	.119	.105	.137	.119
Mo.	.114	.101	.119	.109	.085	.104	.096	.115	.100	.091	.092	.099	.101
Ark.	.098	.100	.091	.085	.094	.105	.099	.096	.098	.108	.099	.108	.098
Ohio	.110	.139	.121	.090	.083	.087	.083	.087	.085	.095	.098	.102	.097
Tex.	.105	.094	.088	.086	.090	.104	.095	.111	.099	.098	.100	.109	.097
Tenn.	.095	.094	.085	.081	.089	.084	.090	.078	.088	.118	.127	.123	.095
La.-Okla	.094	.083	.098	.112	.093	.103	.077	.089	.072	.094	.085	.100	.091
N. C.	.093	.094	.079	.080	.086	.082	.085	.083	.086	.092	.094	.109	.088
Ky.	.112	.089	.083	.075	.060	.073	.071	.069	.074	.080	.086	.091	.080
Wis.	.084	.088	.074	.085	.086	.082	.076	.076	.073	.075	.068	.085	.080
Miss.	.084	.082	.074	.066	.078	.072	.069	.070	.077	.084	.083	.090	.078
Ga.	.077	.076	.061	.067	.064	.070	.067	.071	.072	.070	.072	.080	.069
Cal.	.089	.062	.067	.059	.065	.064	.064	.070	.072	.061	.076	.085	.068
Ind.	.061	.081	.107	.061	.042	.047	.067	.063	.054	.082	.061	.070	.066
Md.	.059	.057	.050	.058	.060	.065	.069	.071	.071	.067	.072	.074	.066
Me.	.067	.065	.057	.056	.054	.062	.080	.052	.049	.064	.070	.071	.062
Ala.	.071	.067	.059	.058	.060	.060	.062	.062	.054	.061	.059	.067	.061
Pa.	.051	.057	.052	.042	.048	.055	.079	.059	.071	.063	.059	.081	.058
Ida.	.058	.054	.037	.050	.042	.057	.067	.059	.054	.054	.061	.056	.057
Wash.	.051	.039	.038	.035	.053	.047	.075	.049	.064	.064	.054	.086	.054
Va.	.050	.048	.041	.048	.040	.052	.049	.051	.045	.047	.069	.055	.050
Del.	.052	.051	.044	.046	.052	.052	.047	.049	.048	.048	.046	.057	.048
Conn.	.040	.049	.031	.030	.031	.039	.035	.029	.025	.030	.026	.023	.030
U. S.	.081	.079	.070	.070	.072	.076	.077	.075	.078	.080	.080	.088	.077

APPENDIX V

Percent of inspected broilers condemned under Federal inspection because of bruises, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
Percent of broilers condemned for bruises													
Wis.	.070	.075	.067	.056	.046	.050	.047	.046	.046	.047	.053	.062	.0544
Ida.	.055	.056	.052	.042	.045	.053	.034	.049	.052	.044	.054	.051	.0487
Ky.	.072	.069	.052	.043	.035	.030	.038	.039	.044	.043	.042	.054	.0450
La.-Okla.	.043	.043	.037	.034	.036	.038	.040	.041	.038	.036	.038	.043	.0387
Tex.	.045	.045	.037	.036	.032	.033	.036	.043	.034	.035	.039	.049	.0382
S. C.	.034	.037	.036	.032	.028	.026	.026	.029	.030	.029	.033	.041	.0311
Miss.	.029	.027	.026	.025	.027	.026	.031	.031	.029	.031	.031	.031	.0287
Cal.	.034	.032	.025	.023	.025	.028	.026	.024	.025	.027	.032	.034	.0278
Mo.	.031	.030	.029	.024	.023	.024	.027	.026	.028	.029	.029	.032	.0274
Ind.	.033	.035	.033	.028	.021	.024	.024	.023	.023	.026	.024	.034	.0267
N. C.	.028	.030	.027	.023	.021	.021	.023	.024	.025	.025	.028	.031	.0253
Ark.	.025	.030	.024	.022	.021	.022	.022	.023	.022	.023	.026	.026	.0236
Ga.	.024	.026	.022	.020	.019	.020	.021	.023	.024	.025	.026	.029	.0229
Me.	.028	.028	.025	.020	.021	.021	.021	.021	.018	.018	.020	.020	.0216
Ohio	.024	.025	.026	.021	.018	.017	.019	.019	.021	.018	.019	.027	.0209
Tenn.	.020	.020	.015	.015	.016	.017	.020	.019	.018	.020	.025	.022	.0188
Wash.	.023	.017	.019	.015	.015	.015	.014	.015	.014	.013	.020	.025	.0167
Conn.	.021	.027	.018	.017	.013	.012	.009	.011	.010	.014	.014	.027	.0158
Ala.	.015	.015	.013	.013	.012	.013	.015	.017	.017	.016	.017	.019	.0152
Md.	.014	.016	.014	.015	.013	.014	.014	.015	.016	.015	.015	.015	.0147
Pa.	.014	.014	.014	.013	.013	.013	.013	.014	.014	.014	.013	.015	.0136
Del.	.012	.014	.014	.011	.011	.012	.010	.012	.012	.012	.013	.015	.0120
Va.	.013	.013	.013	.013	.011	.011	.010	.011	.011	.011	.012	.013	.0125
U. S.	.025	.026	.023	.021	.020	.021	.022	.023	.023	.023	.025	.027	.0229

APPENDIX W

Percent of inspected broilers condemned under Federal inspection because of overscald, by states, by months,
1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for overscald												
Ida.	.022	.017	.016	.015	.027	.020	.024	.027	.039	.023	.014	.030	.0224
Ky.	.026	.015	.016	.027	.025	.034	.024	.014	.021	.014	.021	.021	.0218
Cal.	.019	.013	.013	.012	.025	.016	.018	.030	.027	.021	.021	.021	.0196
S. C.	.013	.014	.015	.017	.009	.016	.010	.014	.012	.013	.011	.024	.0139
Wash.	.008	.011	.011	.018	.012	.016	.017	.010	.016	.010	.014	.011	.0128
La.-Okla	.008	.011	.005	.007	.010	.023	.014	.016	.011	.011	.019	.011	.0124
Ind.	.012	.014	.013	.009	.014	.013	.014	.013	.014	.010	.011	.011	.0123
Miss.	.011	.007	.009	.011	.018	.015	.016	.014	.009	.008	.012	.010	.0119
N. C.	.013	.009	.007	.009	.011	.013	.012	.013	.013	.010	.011	.012	.0112
Pa.	.013	.009	.010	.005	.006	.009	.012	.011	.008	.014	.017	.011	.0107
Tex.	.009	.007	.008	.009	.014	.012	.013	.014	.011	.009	.009	.010	.0106
Mo.	.009	.008	.015	.010	.007	.011	.017	.008	.010	.010	.010	.010	.0105
Wis.	.006	.010	.005	.007	.018	.013	.019	.012	.010	.007	.008	.009	.0105
Ark.	.007	.009	.007	.007	.007	.013	.015	.013	.012	.012	.008	.010	.0105
Md.	.009	.010	.007	.009	.008	.012	.015	.013	.012	.012	.008	.010	.0104
Ga.	.009	.008	.007	.009	.010	.012	.011	.013	.010	.009	.009	.010	.0098
Ohio	.006	.016	.006	.014	.009	.011	.016	.008	.008	.009	.006	.003	.0097
Va.	.008	.006	.007	.011	.005	.005	.006	.011	.010	.014	.006	.006	.0086
Ala.	.003	.004	.005	.005	.007	.007	.010	.010	.009	.006	.007	.005	.0068
Tenn.	.003	.004	.003	.004	.004	.005	.010	.009	.005	.011	.010	.013	.0067
Del.	.006	.006	.005	.006	.005	.005	.008	.007	.005	.008	.005	.007	.0060
Me.	.005	.004	.004	.006	.008	.008	.007	.007	.004	.005	.008	.004	.0058
Conn.	.002	.003	.002	.003	.005	.001	.002	.002	.002	.002	.001	.002	.0021
U. S.	.009	.008	.007	.008	.010	.012	.012	.012	.011	.010	.010	.011	.0100

APPENDIX X

Percent of inspected broilers condemned under Federal inspection because of tumors, by states, by months.
1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for tumors												
Cal.	.024	.016	.017	.017	.015	.021	.015	.015	.020	.021	.022	.027	.0193
Tex.	.016	.014	.012	.013	.014	.015	.015	.019	.016	.018	.017	.017	.0154
La.-Okla.	.013	.011	.011	.013	.013	.014	.014	.014	.014	.015	.016	.016	.0138
Ohio	.010	.011	.013	.009	.010	.011	.014	.011	.015	.015	.025	.028	.0136
Wis.	.013	.011	.013	.012	.011	.011	.011	.012	.013	.012	.014	.015	.0122
Conn.	.011	.011	.016	.008	.008	.007	.007	.004	.007	.008	.013	.009	.0089
Md.	.009	.008	.008	.009	.009	.009	.009	.009	.009	.009	.010	.010	.0089
Ark.	.008	.007	.007	.008	.007	.008	.007	.008	.008	.009	.009	.009	.0078
Del.	.009	.008	.008	.008	.008	.007	.007	.007	.007	.008	.008	.008	.0076
Miss.	.008	.007	.006	.007	.006	.007	.007	.007	.008	.009	.009	.009	.0076
Ida.	.005	.005	.004	.005	.007	.004	.027	.006	.007	.009	.007	.006	.0075
Me.	.008	.007	.006	.008	.007	.006	.006	.006	.007	.006	.008	.009	.0070
Pa.	.007	.007	.007	.007	.007	.006	.006	.007	.007	.007	.007	.008	.0070
Ala.	.007	.006	.006	.006	.006	.007	.007	.007	.008	.008	.008	.009	.0069
Wash.	.007	.005	.007	.006	.006	.006	.007	.006	.008	.009	.008	.008	.0065
Ga.	.006	.006	.006	.006	.006	.006	.006	.007	.007	.007	.008	.008	.0065
Ind.	.007	.008	.007	.007	.007	.008	.004	.005	.007	.006	.006	.006	.0063
N. C.	.006	.006	.005	.006	.005	.006	.006	.006	.007	.007	.007	.007	.0062
Mo.	.005	.005	.006	.005	.005	.005	.005	.005	.006	.006	.007	.006	.0053
Ky.	.005	.006	.004	.004	.005	.006	.005	.004	.006	.006	.006	.006	.0051
S. C.	.004	.004	.004	.004	.004	.003	.003	.004	.005	.005	.005	.005	.0041
Tenn.	.004	.003	.003	.003	.004	.003	.004	.004	.004	.004	.004	.004	.0037
Va.	.004	.002	.002	.002	.002	.002	.003	.002	.002	.002	.002	.002	.0021
U. S.	.008	.008	.007	.007	.007	.007	.007	.008	.009	.009	.009	.009	.0079

APPENDIX Y

Percent of inspected broilers condemned under Federal inspection because of other causes, by states, by months, 1961-66 average

States	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned for other causes												
Tenn.	.572	.516	.423	.441	.418	.367	.330	.348	.293	.336	.396	.467	.412
S. C.	.480	.426	.375	.345	.364	.379	.429	.441	.272	.281	.380	.318	.374
Ga.	.428	.424	.406	.396	.375	.364	.373	.358	.240	.260	.297	.337	.352
Cal.	.703	.590	.615	.456	.332	.358	.356	.320	.280	.340	.361	.540	.341
N. C.	.396	.406	.406	.377	.346	.287	.283	.254	.189	.209	.224	.260	.305
Ala.	.344	.287	.271	.266	.282	.265	.287	.264	.202	.200	.214	.236	.278
Wash.	.379	.345	.313	.310	.346	.267	.301	.200	.188	.219	.353	.428	.271
Miss.	.267	.273	.252	.229	.214	.242	.246	.223	.161	.160	.170	.205	.237
Ida.	.208	.149	.369	.206	.235	.195	.158	.283	.181	.145	.192	.176	.215
Ark.	.189	.187	.181	.161	.146	.133	.146	.140	.108	.134	.146	.155	.158
Md.	.270	.244	.178	.115	.129	.135	.205	.174	.063	.062	.101	.166	.148
Pa.	.180	.168	.163	.134	.150	.125	.159	.143	.071	.055	.096	.157	.142
Ohio	.199	.115	.168	.131	.115	.103	.083	.114	.136	.151	.212	.243	.137
Va.	.233	.197	.187	.189	.123	.103	.063	.142	.020	.009	.042	.168	.125
Tex.	.133	.121	.099	.079	.080	.097	.110	.120	.122	.089	.115	.150	.123
Conn.	.079	.131	.175	.133	.079	.126	.119	.153	.047	.036	.047	.057	.121
Ky.	.151	.135	.107	.132	.103	.100	.100	.108	.099	.105	.148	.171	.120
Del.	.163	.154	.125	.093	.104	.131	.160	.161	.052	.053	.090	.152	.118
Mo.	.142	.124	.104	.107	.084	.077	.084	.074	.058	.080	.098	.098	.092
Me.	.096	.146	.148	.119	.117	.144	.100	.123	.044	.045	.053	.068	.087
Wis.	.109	.113	.095	.072	.069	.067	.092	.059	.055	.045	.066	.085	.069
La.-Okla.	.044	.056	.080	.086	.081	.047	.050	.087	.044	.033	.046	.067	.064
Ind.	.076	.065	.066	.058	.081	.082	.058	.051	.038	.042	.049	.035	.057
U. S.	.291	.278	.261	.239	.230	.219	.229	.218	.155	.159	.184	.221	.221

APPENDIX Z

Broilers condemned under Federal inspection, by causes, by months, United States, 1967

Causes	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Percent of broilers condemned												
Airsacculitis	2.52	2.03	1.94	1.36	1.23	1.03	.77	.67	63	.71	98	1.06	1.22
Septicemia	.76	.74	.65	.56	.59	.58	.51	.50	50	53	63	.69	.60
Leukosis	1.29	1.34	1.40	1.31	1.33	1.21	1.18	1.09	12	1.24	1.41	1.50	1.28
Synovitis	.12	.11	.09	.08	.08	.07	.07	.07	08	.06	.06	.06	.08
Contamination	.15	.14	.14	.15	.17	.17	.17	.17	.16	.16	.16	.15	.16
Cadavers	.11	.10	.09	.09	.10	.09	.08	.08	08	.08	.09	.09	.09
Bruises	.04	.04	.04	.03	.03	.03	.03	.03	03	.03	.04	.04	.03
Overscald	.01	.01	.01	.02	.02	.02	.02	.02	02	.02	.02	.01	.02
Tumors	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Other	.13	.12	.11	.11	.11	.10	.11	.09	09	.09	.09	.10	.10
All Causes	5.14	4.64	4.48	3.72	3.67	3.31	2.95	2.73	2.72	2.93	3.49	3.71	3.59

Percent of condemned broilers

Airsacculitis	49.1	43.8	43.2	36.6	33.4	31.0	26.0	24.7	23.2	24.3	28.2	28.5	34.0
Septicemia	14.7	15.9	14.6	15.2	16.1	17.6	17.4	18.2	18.2	18.2	18.1	18.5	16.7
Leukosis	25.0	28.8	31.2	35.1	36.1	36.6	40.1	40.0	41.1	42.0	40.4	40.4	35.6
Synovitis	2.3	2.3	2.0	2.2	2.2	2.3	2.5	2.4	2.9	2.2	1.9	1.7	2.2
Contamination	2.9	3.0	3.2	4.0	4.6	5.0	5.8	6.2	6.1	5.4	4.5	4.2	4.4
Cadavers	2.1	2.2	2.0	2.3	2.7	2.6	2.8	3.0	3.0	2.8	2.6	2.5	2.5
Bruises	.8	.9	.8	.9	.9	1.0	1.1	1.2	1.2	1.1	1.0	1.0	1.0
Overscald	.3	.2	.3	.4	.5	.5	.6	.7	.6	.6	.5	.3	.4
Tumors	.2	.2	.2	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3
Other	2.6	2.7	2.5	3.0	3.2	3.1	3.4	3.3	3.3	3.1	2.5	2.6	2.9
All Causes	100	100	100	100	100	100	100	100	100	100	100	100	100

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