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**AGRICULTURAL DEVELOPMENT SYSTEMS  
EGYPT PROJECT**

**UNIVERSITY OF CALIFORNIA, DAVIS**

STATISTICAL TECHNIQUES FOR ESTIMATING  
CALIFORNIA POULTRY NUMBERS--1983

by

James H. Cothorn and Susan McManigal  
University of California, Davis

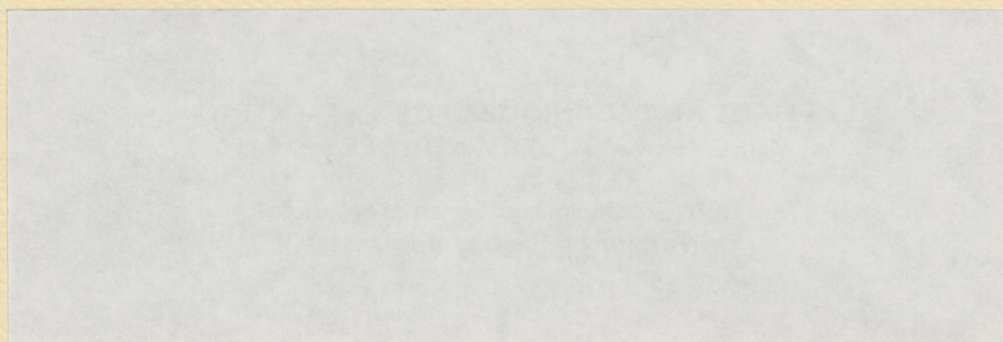
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June, 1983

Agricultural Development Systems:  
Egypt Project  
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Statistical Techniques for Estimating  
California Poultry Numbers--1983<sup>1</sup>

The need for a detailed and systematic method for estimating poultry numbers has been documented both by Egyptian and domestic economists. In order to address this need, a team of Egyptian economists have conducted a detailed survey of Egyptian poultry producing firms by size, number, and location. This information should yield valuable insight as to the structure, conduct, and performance of the industry but leaves wanting the question of an appropriate method or methods of incorporating their efforts into an ongoing program of statistical livestock and poultry numbers estimating over time.

A trip to Egypt last year by the investigator suggested some methods of evaluating numbers over time.<sup>2</sup> This paper addresses some of the techniques discussed in that particular paper and narrows the approach to the question of methodology involved in evaluating poultry numbers in California. The methodology involved is consistent throughout the United States. Therefore, one would suspect the approach to be consistent with other reporting agencies' so that data collected in California may be incorporated into other states' data to ultimately produce an aggregate U.S. industry report, useful for both planning and marketing effort.

Discussion in the paper is subdivided into eight distinct areas consistent with categorical reports produced by California Crop and Livestock Reporting Service in their periodic survey of domestic producers. These areas are as follows:

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<sup>1</sup>Prepared for the UC-Egypt Project, June 10, 1983.

<sup>2</sup>See Trip Report, James Cothorn, June 10, 1982.

Production and Marketings of Eggs, Chickens, and Turkeys (Calendar Year)

Chickens: Layers on Hand, Rate of Lay, and Eggs Produced by Months (Calendar Year)

Chickens: Number of Layers on Farms, Egg Production, Disposition, Prices Received, and Gross Income (Calendar Year)

Broilers and Fryers: Number Produced, Prices Received, and Gross Income, California (Calendar Year)

Chickens: Number Hatched, Egg Type, Broiler Type, By Months, California (U.S. Total) (By Calendar Year)

Chick and Turkey Hatcheries: Number, Incubator Capacity, Number Hatched, California (By Calendar Year)

Slaughter: Poultry Slaughter Under Federal Inspection, California (By Calendar Year)

Chicks and Poults: Number Produced by Commercial Hatcheries, by Weeks (By Week--Annually)

It is recognized all of the areas may not be physically or economically capable of duplication within the Egyptian institutional framework. However, at least some of the methodology has been employed by the Egyptian team and, with some intensification of effort, much of the remaining information could be incorporated into their efforts.

#### California Poultry Data

This paper explains how the U.S. poultry data is derived. This is the first part of an eight-part series. Each part will describe a table in the Production and Marketing: Eggs, Chickens, and Turkeys annual for California, 1981.

The first table is Table 1, Number on Farms, December 1, California, 1972-1981. (See Table 1.) The information for this entire annual is from primary data, more specifically, survey data (survey included in the Appendix

as an exhibit). The survey is the Chicken and Egg Report for December 1 which is conducted in every state once a year on December 1st (see Appendix 1). This survey is done statewide and then compiled for national figures.

The headings on Table 1 are somewhat misleading. Therefore, some definitions are included. The hens category contains all female chickens one year old and older. The first pullets category includes female chickens twenty weeks to one year of age. Pullets younger than twenty weeks are the second pullets category; pullets not of laying age. The other chickens category includes cockerels, roosters, male chickens, etc., but excludes broilers.

The hens and also the pullets category comes from question number 2 under the Inventory heading. Hatchery data is used to separate the two categories. The pullets not of laying age are an addition of the survey's questions 3 and 4 under the heading Inventory. The other chickens category is derived from survey question number 5, "Inventory." Addition of questions 2, 3, 4, and 5 or categories hens, pullets 2/, pullets 3/, and other chickens equals the total category on Table 1.

The December 1 survey is a stratified probability area frame survey. The stratifications are in number of chickens as follows:

1 -	2,999
3,000 -	9,999
10,000 -	19,999
20,000 -	49,999
50,000 -	99,999
100,000 -	199,999
200,000 -	399,999
400,000 -	over

The California Crop and Livestock Reporting Service (CCLRS) mails out surveys to all existing poultry producers in each stratification.

The surveys are mailed out according to a master list. This list contains all the known poultry producers. Advertisements in trade journals and magazines and information from county agricultural commissioners are used to keep the list current.

For the December 1 survey, the California Crop and Livestock Reporting Service works to obtain an effective 100 percent response rate. They have trained interviewers to first phone and then do personal interviews on the nonresponsive producers. Then bias arising from nonresponse is eliminated.

The process of transferring the data from the surveys to the data published is a two-step process. First, the survey data is processed directly onto a computer. There are checks in the system to curtail any false data on the surveys. Examples of these checks are data that is not feasibly possible or data not fitting last month's data from the same producer.

Once all the data has been verified and is on the computer, ratios, estimators, and alterations to the data are completed. The estimation procedures statisticians use are regression analysis, time series analysis, and, most importantly, the balance sheet approach. The balance sheet approach is illustrated here as an example: the number of hens last year is first determined; then this year's death loss is subtracted, as is the current year's slaughtered hens. To these totals are added this year's placement of hens. The resulting derived number should be close to the number reported for the current year. If the numbers do not reconcile, then revisions on the actual data are completed. The result best fitting the actual data and estimator analysis is the published final estimate.

After the numbers are finalized, two ratios are derived. Included in the Appendix is a copy of one month's computer printout within which the ratios are derived. Note the control data expansion ratio. This is equal to  $N/n$



where  $N$  equals the universe size and  $n$  equals the sample size. To assure greater accuracy, the December 1 survey control data expansion ratios are accomplished for each stratification. The sample is then multiplied by the ratio to obtain a state direct expansion. The ratio is used for the U.S. direct expansion by summing up the individual states. An example follows: a universe of 10, a sample of 5, resulting in a ratio equalling 2. The value of the sample is then multiplied by the 2 to get the expansion. This expansion ratio is derived from the December 1 data but is not used on the December 1 data. The ratio is used on the monthly poultry data which is similar to the December 1 data but does not use such an extensive surveying procedure.

The other ratio calculated is the identical ratio. This ratio is a comparison of current data with data reported a year earlier for matched sampling units. Questionnaires from producers are matched with the same producer's questionnaire from the previous year. Thus a current to current (C/C) percentage of the preceding year's number is computed. This ratio is then applied to total chickens on December 1st of last year to obtain a current indication of the number of chickens on hand. Both of the ratios illustrated are only indicators. They are not used for estimating procedures. Therefore, the figures are not published.

Revisions on this data do occur but are not common. If they are revised, it happens every five years after the Agricultural Census.

This data is disseminated nationally by mail. It is mailed to anyone who wants the poultry data. There are weekly, monthly, and annual publications. The people who wish to be sent the information must pay a fee for it. The data is also sent out on various commodity news services, and producers are the main users of the information, although marketing firms and policy

analysts are also users. It takes almost a full month for the estimator to be published. For example, September's monthly data is mailed out on October 22nd. Weekly data is mailed out on the Wednesday of the next week.

This is the second section of eight segments, and the subject of this section is Table 2, Chickens: Layers on Hand, Rate of Lay, and Eggs Produced, By Months, California, 1980-81. (See Table 2.) The information for this table is from primary survey data, Chicken and Egg Report (see Appendix). This survey is conducted quarterly in California as well as in 11 other states.<sup>3</sup>

The first category, "Layers," information comes from question 2 on the Chicken and Egg Report. The second category, "Eggs per 100 Layers," is derived from question 1 on the report. "Eggs Produced" category is a multiplication of the categories "Layers" and "Eggs per 100 Layers."

This chicken and egg report survey is conducted in the identical manner of the Chicken and Egg Report for December 1. The stratifications are the same, the methodology is the same, and the surveying is the same. The tabulation is the same (see Appendices 4 and 5), and the dissemination of data is also identical.

The third portion of this paper deals with Table 3, Chickens: Number of Layers on Farms, Egg Production, Disposition, Prices Received, and Gross Income, California, 1972-81. (See Table 3.) The information in this table is derived from egg producers.

The headings on this table come from a variety of sources. "Hens and Pullets of Laying Age, On Hand December 1" comes straight from the

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<sup>3</sup>This survey has historically been conducted monthly but currently is being conducted quarterly, due solely to budget considerations.

December 1 survey as described in Table 1. "Hens and Pullets of Laying Age, Annual Average" comes from the monthly Chicken and Egg Report. One takes the summation of the 12 months divided by 12. "Eggs per Layer" is derived by dividing "Eggs Produced" by "Hens and Pullets of Laying Age, Annual Average." "Eggs Produced" is transferred directly from Table 2, the total summation of the monthly data for a year. "Eggs Used on Farm" is from a survey done in Washington, D.C. "Eggs Sold" equals "Eggs Produced" less "Eggs Used on Farms." "Prices Received Per Dozen" comes from the Poultry and Egg Price Inquiry (see Appendix 6). "Gross Income" is a multiplication between "Eggs Sold" and "Prices Received Per Dozen."

All data, except the Poultry and Egg Price Inquiry, has been previously discussed. The Poultry and Egg Price Inquiry is distributed to buyers of eggs and/or poultry from a master list. Sixty buyers are sampled by mail every month. It is a simple random survey; no stratifications are used. The responses are then averaged to finalize the published figures.

The fourth section of this paper deals with Table 4, Broilers and Fryers: Number Produced, Prices Received, and Gross Income, California, 1972-81. (See Table 4.) All data here comes from primary sources.

Each column comes from different sources. "Number Produced" (12/1-11/30) is estimated primarily from weekly placements (10/1-9/30). This is weekly hatchery placements minus death loss from the six largest producers. "Average Live Weight" is based on data from federal and state inspection and from trade sources. "Pounds Produced" is a multiplication of columns "Number Produced" and "Average Live Weight." "Prices received per pound" is estimated from the Poultry and Egg Price Inquiry previously described under Table 3. "Gross Income" is merely a multiplication of "Pounds Produced" and "Prices Received per Pound."

The fifth part of this series discusses Table 5, Chickens: Number Hatched, Egg Type, Broiler Type, By Months, California (U.S. Total), 1977-81. (See Table 5.) This table, again as all the others, is based on primary data--rather, survey data. The survey is called Weekly Hatchery and Chick Placement Report (see Appendix 7). This survey is done weekly in California. The headings are self descriptive and come from question 2 on the above mentioned survey.

This weekly hatchery survey is mailed out to all known hatcheries that hatch egg type or broiler type chicks on a commercial basis. The universe is divided into two groups: hatcheries reporting monthly and hatcheries reporting weekly. There is a high response rate. At the end of the year, an intensive effort is made to obtain reports from those not reporting during the year. Followup is done by personal interview and telephone call backs.

After tabulations are made on the data collected, two indications are computed, matched report indication (c/c ratio), and an indication based on the relation between the number of chicks hatched during the month and the total capacity of hatcheries reporting.

The first indication compares current hatching reported by hatcheries with the hatch reported by the same hatcheries in the corresponding month a year earlier (a c/c ratio). This c/c ratio is applied to the estimate a year earlier to obtain an indication of the monthly hatch for the current month.

The second indication is a four-step process. a) Total operating capacity is established for size groups within each state since the number of chicks hatched per unit of capacity varies with the size of the hatchery. b) Taking each size group as a unit, the ratio of the number of chicks hatched to total capacity is calculated for hatcheries reporting. c) These ratios are then applied to the total capacity of all hatcheries in the respective size



groups to derive the total number hatched for the group. d) The sum of the size groups is the indicated total production for the state. The main assumption in this process is that within a certain size group, hatcheries that did not return the questionnaire operated on approximately the same scale as those hatcheries which did reply.

The two primary uses of this data are to provide a continuous record of the potential supply of replacements for the laying flock, and broiler type hatched data provides a measure of future broiler slaughter.

The sixth part of this series deals with Table 6, Chick and Turkey Hatcheries: Number, Incubator Capacity, Number Hatched, California, 1972-82 (U.S. 1982). (See Table 6.) The table is based on primary data from the surveys, weekly Hatchery and Chick Placement Report (discussed in the last section), weekly Turkey Hatchery Report, and the monthly Turkey Hatchery Report (see Appendices 8 and 9). These surveys are done weekly and monthly, respectively.

The "Hatcheries" column contains the number of hatchery operations and comes from the master list used for the mail surveys. The "Incubator Capacity" is the capacity for the hatcheries. This is estimated from survey data. "Chicks Hatched" comes straight from Table 12's annual data. "Poults Hatched" is estimated from the weekly and monthly Turkey Hatchery Report. The weekly and monthly Turkey Hatchery Report is handled the same way the weekly Hatchery and Chick Placement Report is.

The seventh table discussed is collection analysis and presentation of Table 7, Slaughter: Poultry Slaughter Under Federal Inspection, California, 1980-81. (See Table 7.) The data in this table is obtained from federal government survey efforts. In 1981, 96 percent of all poultry slaughtered in California was done in federally inspected plants (all poultry slaughtered in

plants engaged in interstate shipments of dressed poultry are required to be inspected by a federal inspector).

The "Young Chickens" column contains broilers and fryers. "Mature Chickens" are old hens and old roosters. "Fryer-Roasters" column is empty because there are none in California. "Young Turkeys" are turkeys less than 34 weeks old.

The last part of this series deals with Table 8, Chicks and Poults: Number Produced by Commercial Hatcheries, By Weeks. (See Table 8.) The data in this table comes from the surveys discussed previously for Table 11 and Table 17.

The columns defined "Eggs Set" means how many eggs are put into the incubator each week, "Chicks Hatched" equals the number of chicks taken out of the incubator, and "Chicks Placed in California" identifies the number of chicks leaving the hatchery that week.

#### Summary and Conclusions

From a review of the previous discussion, it is relatively easy to see that a systematic and comprehensive effort is maintained to assimilate, evaluate, and disseminate high quality statistical poultry information. This information pertains to number, rate of replacement, death loss, and other pertinent information concerning layers, broilers, and turkeys in California.

Change has come about over time in the frequency and intensity of poultry information. However, relatively high quality information is still made available and, as noted in the preceding, is used by producers, marketing firms, and others. Their participation is also mandatory in the collection and auditing of these data.

TABLE 1. CHICKENS: Number on farms December 1, California, 1972-81 <sup>1/</sup> (U.S.-1981)

Year	Chickens on farms December 1				
	Hens	Pullets <sup>2/</sup>	Pullets <sup>3/</sup>	Other Chickens	Total
	----- <u>Thousand birds</u> -----				
1972	18,742	16,504	12,783	195	48,224
1973	19,844	17,164	13,177	199	50,384
1974	22,484	16,374	10,727	293	49,878
1975	22,978	14,714	10,139	240	48,071
1976	21,969	14,953	9,019	250	46,191
1977	20,664	15,736	9,026	190	45,616
1978	20,985	15,591	9,251	193	46,020
1979	17,794	19,206	8,282	228	45,510
1980	17,221	18,779	7,096	174	43,270
1981	15,470	20,230	6,238	212	42,150
U.S. 1981	128,229	164,280	83,965	6,746	283,222

<sup>1/</sup> Excluding commercial broilers and fryers.<sup>2/</sup> Pullets of laying age.<sup>3/</sup> Pullets not of laying age.

SOURCE: California Crop and Livestock Reporting Service.

TABLE 2. CHICKENS: Layers on hand, rate of lay, and eggs produced, by months, California 1980-81

Month	Layers <u>1/</u>		Eggs per 100 Layers		Eggs Produced	
	1980	1981	1980	1981	1980	1981
	<u>Thousands</u>		<u>Number</u>		<u>Millions</u>	
Dec. <u>2/</u>	37,051	36,000	2,008	2,025	744	729
January	37,225	36,000	2,007	2,011	747	724
February	37,050	35,700	1,881	1,821	697	650
March	36,525	35,000	2,064	2,034	754	712
April	36,300	34,450	1,972	1,956	716	674
May	36,150	34,400	1,986	1,985	718	683
June	36,150	34,500	1,994	1,913	721	660
July	36,450	34,900	2,071	2,052	755	716
August	36,700	35,000	2,033	2,094	746	733
September	36,750	34,600	1,984	2,020	729	699
October	37,100	34,750	2,029	2,052	753	713
November	36,750	35,350	1,948	2,000	716	707

1/ Average number on hand during month.

2/ December preceding year.

SOURCE: California Crop and Livestock Reporting Service.



TABLE 3. CHICKENS: Number of layers on farms, egg production, disposition, prices received, and gross income, California, 1972-81 (U.S.-1981)

and gross income, California, 1972-81 (U.S.-1981)

Year	Hens and Pullets of Laying Age		Eggs Per Layer <u>1/</u>	Eggs Produced	Eggs Used on Farms	Eggs Sold	Prices Received Per Doz.	Gross Income
	On Hand Dec. 1	Annual Average						
	Thousand Birds		Number	- - - -	Millions	- - - -	Cents	Thousand \$
1972	42,465	39,201	221	8,652	6	8,646	28.1	202,602
1973	37,193	35,147	219	7,680	5	7,675	50.6	323,840
1974	38,858	38,276	222	8,485	4	8,481	47.9	338,693
1975	37,692	37,940	223	8,467	4	8,463	49.8	351,381
1976	36,922	37,557	230	8,635	4	8,631	53.5	384,977
1977	36,400	36,469	229	8,345	5	8,340	50.8	353,272
1978	36,576	35,767	235	8,412	5	8,407	46.0	322,460
1979	37,000	37,005	235	8,713	10	8,703	50.8	368,850
1980	36,000	36,684	240	8,796	10	8,786	50.5	370,165
1981 <u>2/</u>	36,000	35,054	240	8,400	10	8,390	56.9	398,300
U.S. 1981	294,136	286,884	243	69,603	444	69,159	63.1	3,662,733

1/ Based on annual average number of layers.

2/ Preliminary.

SOURCE: California Crop and Livestock Reporting Service.

TABLE 4. BROILERS AND FRYERS: Number produced, average live weight, pounds produced, prices received and gross income, California, 1972-81 (U.S.-1981)

Year	Number Produced	Average Live Weight	Pounds Produced	Prices Received per Pound	Gross Income
	<u>Thousand Birds</u>	<u>- Pounds -</u>	<u>Thousand Pounds</u>	<u>- Cents -</u>	<u>Thousand Dollars</u>
1972	86,022	4.2	361,292	17.5	63,226
1973	83,193	4.1	341,091	24.7	84,249
1974	90,377	4.2	379,583	25.7	97,553
1975	95,825	4.3	412,048	24.9	102,600
1976	104,950	4.3	451,285	26.3	118,688
1977	112,500	4.4	495,000	26.7	132,165
1978	122,400	4.5	550,800	28.3	155,876
1979	137,600	4.4	605,440	29.5	178,605
1980	152,400	4.6	701,040	31.5	220,828
1981	158,800	4.7	746,360	34.5	257,494
U.S.-1981	4,149,200	4.0	16,513,904	28.5	4,698,400

Source: California Crop and Livestock Reporting Service

TABLE 5. CHICKENS: Number hatched, egg type, broiler type, by months, California (U.S. total), 1977-81

Month	Egg Type					Broiler Type				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
	----- Thousand -----					----- Thousand -----				
Jan.	4,344	4,944	4,809	4,043	4,558	9,346	10,624	11,038	13,014	12,990
Feb.	4,385	4,009	4,245	4,992	4,174	9,031	10,507	11,410	12,963	12,785
Mar.	4,436	4,139	4,796	5,218	3,584	11,234	11,578	12,866	11,382	15,041
Apr.	4,322	4,241	4,905	4,936	4,740	10,779	11,346	12,784	13,409	14,064
May	4,996	5,537	4,886	4,710	4,029	11,094	11,681	13,222	13,986	14,407
Jun.	4,389	4,898	4,274	3,861	3,521	10,494	11,734	12,912	13,299	14,423
Jul.	4,101	3,644	4,619	3,400	3,359	10,427	11,836	12,784	13,882	14,843
Aug.	3,757	4,102	4,494	3,816	3,375	10,040	10,418	13,092	13,496	14,919
Sep.	3,275	3,910	3,963	3,982	3,294	9,072	9,549	12,663	12,809	13,895
Oct.	4,206	4,232	4,204	3,417	3,918	9,490	10,349	12,597	13,176	13,510
Nov.	3,741	3,374	3,267	3,244	3,665	9,236	10,407	12,445	12,918	14,140
Dec.	4,079	4,352	3,648	3,336	3,041	10,109	10,707	13,623	12,983	14,477
Total	50,031	51,382	52,110	48,955	45,258	120,352	130,736	151,436	157,317	169,474
U.S. Total	501,913	491,578	518,953	484,622	454,175	3,636,672	3,879,339	4,197,758	4,280,338	4,416,641

Source: California Crop and Livestock Reporting Service

TABLE 6. CHICK AND TURKEY HATCHERIES: Number, incubator capacity, number hatched, California, 1972-82 (U.S. 1982)

California, 1972-82 (U.S. 1982)

Year	Hatcheries 1/		Incubator Capacity 1/		Chicks Hatched		Poults Hatched
	Chick	Turkey	Chick	Turkey	Broiler Type	Egg Type	
	- - <u>Number</u> - -		- - - - - <u>Thousand Birds</u> - - - - -				
1972	39	26	18,571	6,688	90,850	57,807	20,516
1973	31	26	17,505	6,638	90,203	59,594	20,048
1974	29	20	16,445	5,379	96,293	47,027	19,623
1975	24	16	19,218	5,517	104,355	43,802	18,640
1976	26	16	19,561	5,516	113,266	45,831	20,318
1977	22	14	18,551	5,032	120,352	50,031	20,003
1978	23	14	17,672	5,042	130,736	51,382	20,190
1979	21	14	21,104	5,112	151,436	52,110	22,432
1980	22	12	22,899	5,068	157,317	48,955	23,779
1981	16	9	18,852	4,935	169,474	45,258	24,127
1982	12	9	22,144	4,935	---	---	---
U.S. 1982	538	106	466,096	39,022	4,416,641	454,175	187,334

1/ Includes hatcheries actually operating and some hatcheries held on a stand-by basis.

SOURCE: California Crop and Livestock Reporting Service.



TABLE 7. SLAUGHTER: Poultry slaughter under federal inspection, California, 1980-81  
(U.S. 1980-81)

Month	Young Chickens		Mature Chickens		Fryer-Roasters		Young Turkeys	
	1980	1981	1980	1981	1980	1981	1980	1981
	----- Thousand Birds -----							
Jan.	13,093	13,103	2,509	1,904	---	---	867	788
Feb.	12,126	11,072	2,426	1,577	---	---	562	747
Mar.	11,887	12,358	1,441	2,031	---	---	720	639
Apr.	12,919	12,939	1,998	1,905	---	---	1,106	1,451
May	12,678	13,051	1,684	1,754	---	---	1,632	1,559
Jun.	12,107	13,770	1,556	1,757	---	---	1,760	1,690
Jul.	13,047	13,871	1,698	1,504	---	---	2,262	2,136
Aug.	12,134	12,920	1,584	1,622	---	---	1,885	2,178
Sep.	13,136	13,542	1,236	1,585	---	---	1,768	1,974
Oct.	13,439	13,566	1,487	1,156	---	---	1,878	1,953
Nov.	9,566	10,575	1,447	886	---	---	2,339	2,389
Dec.	12,194	13,043	2,023	1,776	---	---	1,811	2,246
TOTAL	148,326	153,810	21,089	19,457	---	---	18,590	19,750
U.S. TOTAL	3,915,167	4,071,439	197,809	196,662	9,392	8,313	145,774	151,561

SOURCE: California Crop and Livestock Reporting Service.

TABLE 8. CHICKS AND POULTS: Number produced by commercial hatcheries, by weeks, California, 1951

Week Ending	Broiler Type			Egg Type			Turkeys 1/		
	Eggs Set	Chicks Hatched	Chicks Placed in California	Eggs Set	Chicks Hatched	Sexed Pullets Placed in California	Eggs Set	Poults Hatched	Poults Placed in California
	Thousands								
Jan. 3	3,681	3,016	3,004	1,171	1,025	521	743	475	475
Jan. 10	3,724	2,861	2,842	1,328	1,026	509	541	549	549
Jan. 17	3,796	2,836	2,836	1,204	1,039	485	778	539	537
Jan. 24	4,096	2,966	2,966	1,151	950	446	695	439	408
Jan. 31	4,052	3,033	3,012	1,339	1,103	593	813	512	466
Feb. 7	4,042	3,040	3,020	1,390	1,032	603	930	383	383
Feb. 14	4,294	3,243	3,192	1,009	862	521	925	496	489
Feb. 21	4,150	3,248	3,228	868	1,134	652	846	441	418
Feb. 28	4,307	3,254	3,234	1,011	1,146	661	935	566	521
Mar. 7	4,269	3,437	3,416	885	849	478	1,007	667	601
Mar. 14	4,217	3,310	3,258	1,299	666	353	847	647	611
Mar. 21	4,272	3,446	3,426	1,111	854	503	965	647	613
Mar. 28	4,181	3,404	3,353	1,544	759	439	954	622	478
Apr. 4	4,055	3,367	3,346	1,400	1,064	597	821	714	670
Apr. 11	3,895	3,396	3,375	1,447	920	470	924	572	534
Apr. 18	4,081	3,287	3,266	784	1,254	684	938	640	589
Apr. 25	4,101	3,263	3,242	1,122	1,187	658	968	654	605
May 2	4,015	3,074	3,054	1,377	1,080	596	957	561	533
May 9	4,211	3,244	3,224	1,071	657	361	1,016	638	581
May 16	4,276	3,282	3,262	1,486	912	477	969	620	585
May 23	4,023	3,242	3,222	832	1,116	594	905	639	620
May 30	4,210	3,280	3,259	1,010	864	495	1,006	572	547
Jun. 6	4,409	3,357	3,336	802	1,196	589	894	670	640
Jun. 13	4,116	3,248	3,228	1,188	665	361	1,101	642	615
Jun. 20	4,502	3,371	3,351	331	795	455	913	590	576
Jun. 27	3,976	3,525	3,504	1,266	639	389	976	700	638
Jul. 4	4,013	3,267	3,246	934	926	469	826	592	557
Jul. 11	4,130	3,607	3,587	1,061	272	158	802	723	722
Jul. 18	4,145	3,205	3,185	583	1,067	539	583	641	637
Jul. 25	4,360	3,232	3,211	1,218	741	372	659	639	619
Aug. 1	4,042	3,423	3,402	856	875	429	646	554	537
Aug. 8	4,323	3,335	3,315	1,120	463	307	379	557	548
Aug. 15	4,168	3,355	3,335	1,265	958	540	363	393	385
Aug. 22	4,045	3,243	3,222	665	666	418	371	458	447
Aug. 29	3,859	3,521	3,500	1,203	869	504	241	456	443
Sep. 5	3,901	3,413	3,393	799	1,029	569	322	271	189
Sep. 12	3,570	3,335	3,315	962	526	333	211	242	232
Sep. 19	4,027	3,170	3,149	1,198	935	513	174	252	229
Sep. 26	3,682	3,239	3,218	1,079	659	409	363	168	163
Oct. 3	3,771	2,966	2,946	1,052	768	431	227	233	213
Oct. 10	3,224	3,342	3,322	964	1,040	553	261	137	133
Oct. 17	3,368	3,069	3,049	890	908	503	191	123	121
Oct. 24	4,072	3,143	3,122	1,037	847	426	299	265	252
Oct. 31	4,206	2,648	2,663	1,013	794	422	262	171	171
Nov. 7	4,152	2,819	2,798	1,099	718	422	---	---	---
Nov. 14	4,245	3,393	3,372	1,419	865	451	---	---	---
Nov. 21	4,056	3,504	3,484	1,028	823	461	---	---	---
Nov. 28	3,750	3,418	3,398	690	938	496	---	---	---
Dec. 5	3,725	3,516	3,493	450	1,124	586	---	---	---
Dec. 12	4,156	3,364	3,343	986	800	420	---	---	---
Dec. 19	3,953	3,090	3,069	1,103	546	296	---	---	---
Dec. 26	3,599	3,067	3,046	1,247	325	177	---	---	---
Jan. 2	3,701	3,426	3,406	1,584	794	412	---	---	---

1/ Weekly Turkey discontinued after October 31, 1951.

Source: California Crop and Livestock Reporting Service

Appendices

Respectfully,  
G. N. TUCKER, JR.  
Agricultural Statistician

10. Are any of the chickens reported in Item 6 owned by another person or firm? ..... YES ☐ NO ☐  
If "YES" please list the name and address of the person or firm that owns them so we can remove duplication.  
NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

11. Are any of these hens and pullets in Item 6 out on contract? ..... YES ☐ NO ☐

12. If "YES" how many contractees are now caring for flocks owned by you? ..... NUMBER: \_\_\_\_\_

13. Do you have any hens and pullets in any other  
state? \_\_\_\_\_

Reported by: \_\_\_\_\_ From: \_\_\_\_\_ Date: \_\_\_\_\_



## Appendix 2

EGG PRODUCTION SUMMARY AND EXPANSION SHEET														DATE	STATE CALIF	CS
IDENTICAL EXPANSION																
STRATUM	NO.	NO.	STATIST	DECEMBER BASE	EXPANSION									NO.	NO.	NO.
BOUNDARIES	OPERATIONS	ED	DEC.1	PREV. NO.	DEC.1	NUMBER	RATIO	EXPAN	TO	DED	NO.	NO.	NO.	PER	EXPAN	ESTIMATES
	BASE	THIS	BASE	MO.	OF	PREVIOUS	CURRENT	BASE	(000)	OF	PREV.	CURRENT	CENT	(000)	STAT	BD
	YEAR	NO.	(000)	(000)	RPTS.	YEAR	MONTH	6/5	7.2	RPTS	MO.	MO.	11/10	12.3		
	(1)	(1A)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
TABLE EGG FLOCKS	1	1	730	730	1	730000	730000	100.00	730	1	730000	730000	100.00	730	730	
1-2000	22	9	110	100	5	34321	35345	102.98	113	6	35665	38275	107.31	107	110	
3-9,999	43	18	900	900	12	166000	171843	103.51	931	16	310635	294474	94.79	853	900	
10-19,999	77	27	2775	2680	19	576088	565197	97.76	2712	17	486816	505197	103.77	2781	2750	
20-49,999	39	22	2425	2440	11	589075	631464	107.19	2599	14	970953	1008099	103.82	2533	2540	
50-99,999	26	13	3225	3200	8	1001875	986537	98.46	3175	8	944855	915537	96.89	3100	3100	
100-199,999	26	22	6550	6800	18	4930726	4702160	95.36	6246	9	2401483	2404593	100.12	6808	6720	
200-399,999	21	21	18300	17940	21	18362650	17434448	94.94	17374	20	17524379	17033209	97.19	17435	17440	
400+	21	21	18300	17940	21	18362650	17434448	94.94	17374	20	17524379	17033209	97.19	17435	17440	
ALL TABLE	255	133	35015	34790	95	26390735	25254994	95.69	33880	91	23404786	22929386	97.96	34347	34290	
EGG FLOCKS	WT							96.75					98.72			
	3	3	758	977	3	758216	877019	115.66	876	3	978435	877019	89.63	875	877	
	5	5	227	233	5	226612	232233	102.48	232	5	233471	232233	99.46	231	233	
	8	8	985	1210	8	984828	1109252	112.63	1108	8	1211906	1109252	91.52	1106	1110	
ALL HATCHING	ST							112.48					91.40			
EGG FLOCKS	WT															
ALL FLOCKS	ST	263	141	36000	36000	103	27375563	26364246	96.30	34988	99	24616692	24038638	97.65	35453	35400
	WT							97.18					98.48			



CALIFORNIA  
CROP AND LIVESTOCK  
REPORTING SERVICE

U.S. DEPT. OF AGRICULTURE and  
CALIF. DEPT. OF FOOD & AGRICULTURE  
P.O. Box 1258, Sacramento, California 95806

February 1, 1982

CHICKEN AND EGG REPORT

Form Approved  
OMB Number 535-0004

\*\*\*\*\*  
PLEASE RETURN BY  
5TH OF MONTH  
IF POSSIBLE  
\*\*\*\*\*

Dear Egg Producer:

The following data on chickens and eggs are needed to prepare State and National monthly egg production statistics. These data are collected and published as a service to the poultry industry. Individual reports are held confidential. Response to this survey is voluntary and not required by law. However, cooperation is very important in order to provide accurate estimates. Please complete and return this report promptly in the enclosed envelope, which requires no stamp.

[Appendix 3]

R. A. MCGREGOR  
Agricultural Statistician in Charge

Very truly yours,  
GEORGE N. TUCKER, JR.  
Agricultural Statistician

PLEASE REPORT BY TYPE OF FLOCK ALL FLOCKS OWNED BY YOU OR YOUR FIRM. (Where the answer to any item is "none", show a zero.)	Commercial Table Egg Flocks	Hatchery Supply Flocks	
		Broiler	Egg-Type
1. EGGS PRODUCED BY YOUR FLOCKS Complete one of the following: a. Current daily rate of lay for all layers ..... OR b. Eggs produced in one day by all layers (Give number for most recent day available) ..... 2. HENS AND PULLETS OF LAYING AGE in your flocks now ( <i>include layers being force molted</i> ) ..... 3. Of the HENS AND PULLETS OF LAYING AGE now on hand, (Item 2) how many: a. Are currently being force molted? ... b. Have completed a force molt? ..... 4. During the last month, how many HENS AND PULLETS OF LAYING AGE were: a. SOLD ..... b. Lost from accident, exposure, destroyed, disease, etc.? ..... c. ADDED? .....	%  082 <u>Number</u>  081  091  092  088  089  090	%  182 <u>Number</u>  181  191  192  188  189  190	%  282 <u>Number</u>  281  291  292  288  289  290

REPORTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

## Appendix 4

## EGG PRODUCTION SUMMARY AND EXPANSION SHEET

STRATUM BOUNDARIES	RATE OF LAY			COMPARABLE FOR THESE ITEMS			MULTI FRAME STATES HPLA		
	HPLA :	EGGS :		HPLA :	BEING MOLTED :	MOLT COMPLETED :	DIRECT EXPANSION		
	REPORTED :	PRODUCED :	RATE :		PERCENT :	PERCENT :	REPORTED :	EXPAN. :	DIRECT
	NUMBER :	NUMBER :	25/24 :	NUMBER :	NUMBER :	28/27 :	NUMBER :	30/27 :	NUMBER :
	(24) :	(25) :	(26) :	(27) :	(28) :	(29) :	(30) :	(31) :	(32) :
									(33) :
									(34) :
TABLE EGG FLOCKS									
1-2	730,000	474,000	.649	730000			18.014	40.50	
3-9	44,475	25,064	.563	44475			41.192	13.98	
10-19	294,474	186,384	.632	294474	2,723	.92	219,214	38.92	
20-49	563,197	349,627	.620	563197	29,771	5.28	384,861	38.17	
50-99	1008,099	675,861	.670	1008099	41,607	4.12	360,848	34.25	
100-199	1053,537	680,672	.646	1053537	126,270	11.98	1305,884	27.72	
200-399	4702,160	3275,229	.696	4702160	142,130	3.02	6124,784	35.13	
400+	17434,448	11323,465	.649	17434448	1305,075	7.48	8452,797	32.72	
TABLE	25830,390	16990,302	.657	25830390	1647,576	6.37		32.91	
FLOCKS			.655			6.30			
	877,019	585,654	.667	877019			5,994	.68	
	232,233	170,581	.734	232233	26,169	11.26		.54	
HATCHING	1109,252	756,235	.681	1109252	26,169	2.35	5,994	.52	
FLOCKS			.681			2.59			
	26939,642	17746,537	.658	26939642	1673,745	6.21	8458,791	31.39	
FLOCKS			.656			6.20		32.02	

## Appendix 5

DATE:

STATE CALIF.

## EGG PRODUCTION SUMMARY AND EXPANSION SHEET

		COMPARABLE FOR THESE ITEM THIS MONTH									
STRATUM BOUNDARIES	HPLA REPORTED	ADDED		CULLED (SOLD)		DIED- DESTROYED		HPLA :		HPLA :	
		PERCENT:		PERCENT:		PERCENT:		COMPUTED :	REPORTED :	PERCENT	
		NUMBER :		NUMBER :		NUMBER :		NUMBER :	NUMBER :	22/21	
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	

## TABLE EGG FLOCKS

1-2								730,000	730,000	100.00	
3-9	44,475	4,560	10.25	1690	3.79	395	.88	38,215	38,275	100.15	
10-19	294,474	6,510	2.21	16318	5.54	3,630	1.23	297,197	294,474	99.08	
20-49	563,197	31,100	5.52	13550	2.40	5,834	1.03	501,132	505,197	100.81	
50-99	1088,099	89,845	8.91	42800	4.24	10,028	.99	1007,970	1008,099	100.01	
100-199	1053,537	73,717	6.99	95317	9.04	8,770	.83	915,685	915,537	99.98	
200-399	4702,160	382,817	8.14	210133	4.45	43,280	.92	2404,225	2404,595	100.01	
400+	17434,448	885,396	5.07	1392768	7.98	175,391	1.00	16903,000	17033,209	100.77	
TABLE	25100,390	1473,945	5.87	1772576	7.06	247,328	.98	22797,424	22929,386	100.57	
FLOCKS	ST		5.95		6.47		.95				
	877,019			74654	8.51	27,180	3.09	876,601	877,019	100.04	
	232,233	1,893	.81			4,255	1.83	231,109	232,233	100.48	
HATCHING	1109,252	1,893	.17	74654	6.73	31,435	2.83	1107,710	1109,252	100.13	
FLOCKS	WT		.18		6.54		2.79				
FLOCKS	ST	26209,642	1475,838	5.63	1847230	7.04	278,763	1.06	23905,134	24038,638	100.55
	WT		5.80		6.47		1.00				

[Appendix 6]

Form Approved  
OIB No. 535-0003

## POULTRY AND EGG PRICE INQUIRY

Month: \_\_\_\_\_

REPORT AVERAGE PRICES PAID TO CALIFORNIA  
PRODUCERS AT RANCH ON OR ABOUT THE 15TH  
OF THIS MONTH & MAIL BY THE 16TH

## CHICKENS

## YOUNG CHICKENS:

Under 4 pounds

(Broilers, fryers).....[60414]

Over 4 pounds (Roasters) ..[60415]

Average price  
Per Pound  
Live Weight  
Cents

## HENS:

Light Breeds &amp; Crossbreeds [60146]

Heavy Breeds .....[60136]

OLD ROOSTERS: .....[60135]

## TURKEYS

HENS: 10 pounds and over..[61171]

TOMS: 10 pounds and over..[61174]

HENS &amp; TOMS: under 10 pounds

(Broilers, fryers, &  
roasters).....[61182]

## EGGS

	Average Price Per Dozen Cents	Volume Purchased (3) Dozen Cases
LARGE .....	[65111]	
MEDIUM .....	[65112]	
SMALL .....	[65113]	
UNDERGRADE/ BREAKER .....	[65117]	

Reported by: \_\_\_\_\_

[81286] Date: \_\_\_\_\_

WEEKLY HATCHERY AND CHICK PLACEMENT REPORT

Dear Reporter:

Your cooperation on this survey is important to insure reliable chick estimates. Knowing the available number of broiler and egg-type chicks should help you with production and marketing decisions.

Your response to this survey will be appreciated but is not required by law. Individual reports are kept confidential. Please return your completed form in the postage paid envelope provided.

Definitions and instructions are on the back.

Very truly yours,  
GEORGE H. TUCKER, JR.  
R. A. MCGREGOR

Agricultural Statisticians

[Appendix 7]

Week ending Saturday \_\_\_\_\_

**Instructions:** Please report "0" if answer is none. Include custom settings and hatchings.  
Include Breeder Flock replacement settings and hatch.

	Broiler-Type Number	Egg-Type Number
1. Chicken eggs set during week ending _____ (Include custom set for others)		
2. Chicks hatched during week ending _____ (Include custom hatch for others)		
3. Of the chicks hatched in Item 2, how many were:		
a. Placed for commercial broiler production .....		XXXXXXXXXXXX
b. Placed as (1) straight run chicks .....	XXXXXXXXXXXX	
(2) pullet chicks .....		
(3) cockerel chicks (including any given away) ..		
c. Other disposition (Specify) _____		

4. Of the chicks placed (Item 3a and 3b (1) and (2)), how many were placed in:

	Broiler-Type			Egg-Type		
	Comm. Br. Prod.	Pullets	Cockerels	Str. Run	Pullets	Cockerels
California .....						
Other state or country:						
a. ....						
b. ....						
c. ....						

5. How many CHICKS were RECEIVED last week from other hatcheries:

Name of Hatchery	Location	Broilers	Egg-Type	
			Sexed Pullets	Straight Run

6. Average cash price received per 100 for straight run broiler type chicks sold (based on actual sales) ..... \$ \_\_\_\_\_

	Broiler-Type	Egg-Type
7. Average cash price received per 100 (based on actual sales) for:		
a. Straight run chicks .....	\$ _____	\$ _____
b. Pullets: (1) Pure breeds and cross breeds .....		\$ _____
(2) Other (including incrosses, incrossbreds, strain crosses, and franchised breeds) .....		\$ _____
c. Cockerels .....		\$ _____

8. Average price paid per dozen to producers for broiler and egg type hatching eggs (include any premium paid for hatchability) ..... \$ \_\_\_\_\_

Date \_\_\_\_\_

Person making report \_\_\_\_\_

(OVER FOR INSTRUCTIONS)



WEEKLY TURKEY HATCHERY REPORT

"A"

Week Ending Saturday Night \_\_\_\_\_

(Sunday through Saturday)

[Appendix 8]

Dear Reporter:

The information which you are being asked to provide will be used in compiling a report of weekly production of turkey poults in California. The turkey industry has requested the Department of Agriculture to prepare such reports for the use and benefit of the industry. In return we request your cooperation to enable us to perform this service. Your individual reports are kept confidential. Response to this survey is voluntary and not required by law. However, cooperation is very important in order to provide accurate estimates. Use accompanying envelope to return this questionnaire. No stamp is required.

Very truly yours,

R. A. MCGREGOR  
Agricultural Statistician in Charge

G. N. TUCKER, JR.  
Agricultural Statistician

	Heavy breeds	Light breeds
	Mature Liveweight	
	12 Pounds or More	Under 12 Pounds
1. Number of turkey eggs set during the week (include custom settings and <u>eggs set for</u> <u>breeder production</u> as well as commercial) .....		
2. Poults hatched during week (Include custom hatchings) .....		
3. Of the poults hatched, how many were: (Sum of Items 3a, 3b, 3c, and 3d should equal Item 2)		
a. Placed in California .....		
b. Placed in other states or countries (Specify)		
1. ....		
2. ....		
3. ....		
c. Breeder Flock Replacement .....		
d. Destroyed .....		

Person making report \_\_\_\_\_

Date \_\_\_\_\_



# Appendix 9

## MONTHLY TURKEY HATCHERY REPORT - MARCH 1982

(PLEASE REPORT "0" IF ANSWER IS "NONE") (Include custom and Breeder Flock replacement settings and hatchings.)	HEAVY BREEDS (Mature Liveweight 12 Lbs. or over)	LIGHT BREEDS (Mature Liveweight Under 12 Lbs.)
	Number	Number
1. Turkey eggs in incubators April 1 .....		
2. Poults hatched during March .....		
3. Poults placed within State during month. ....		
4. Poults shipped out of State during month. .... (NAME OF STATES)		
5. Breeder flock poult replacements. ....		
6. Poults destroyed. ....		
7. Average cash price received per poult. ....	Cents	
8. How many poults were RECEIVED last month from other hatcheries: (NAME AND LOCATION OF HATCHERY)	Number	

PERSON MAKING REPORT

DATE

PHONE NUMBER

