

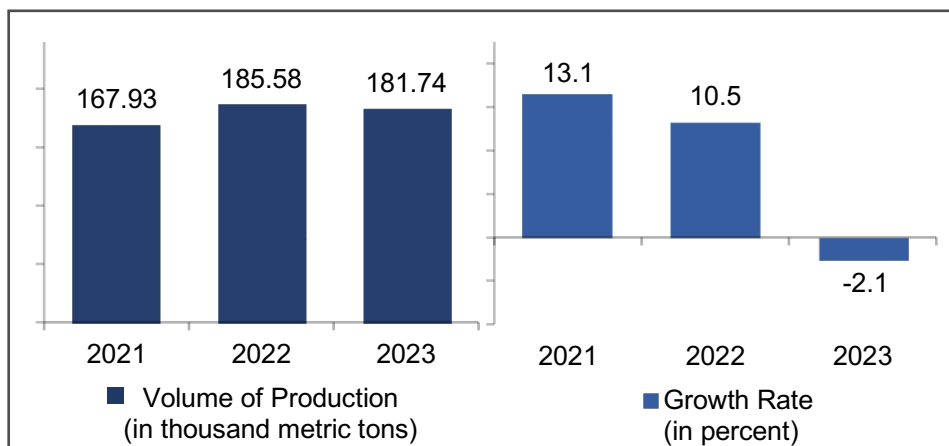
SPECIAL RELEASE

CHICKEN EGG SITUATION REPORT April to June 2023

Date of Release: 22 August 2023

Reference No. 2023-SSO-141

Figure 1. Volume and Annual Growth Rate
of Chicken Egg Production, Philippines
April to June 2021 – 2023^P



^P – preliminary

Sources: Philippine Statistics Authority, Backyard Livestock and Poultry Survey (BLPS), and Commercial Livestock and Poultry Survey (CLPS)

The volume of chicken egg production in April to June 2023 was recorded at 181.74 thousand metric tons. This indicates an annual decline of -2.1 percent from its previous year's same quarter output of 185.58 thousand metric tons. (Figure 1 and Table 1)

CALABARZON remains as the top producer of chicken egg with 59.86 thousand metric tons or 32.9 percent share to the total chicken egg production during the quarter. Completing the top five regions with the highest volume of chicken egg production this quarter were the following:

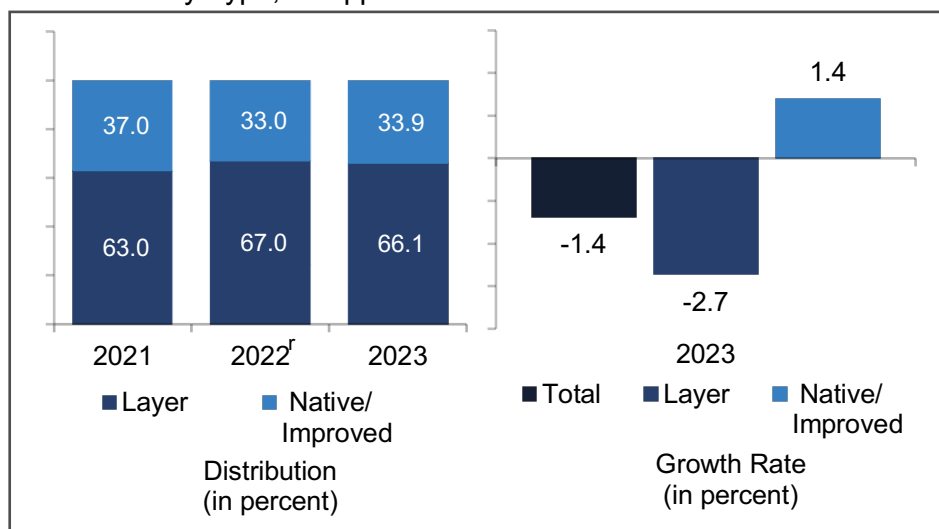
- a. Central Luzon, 33.34 thousand metric tons;
- b. Central Visayas, 19.97 thousand metric tons;
- c. Northern Mindanao, 15.94 thousand metric tons; and
- d. Western Visayas, 9.71 thousand metric tons.



These regions accounted for 76.4 percent of the country’s total chicken egg production during the quarter.

Relative to their outputs in the same quarter of 2022, eight regions posted declines in production during the quarter. In terms of level, Central Luzon posted the highest annual decrease of 4.88 thousand metric tons, from 38.22 thousand metric tons in the same period of the previous year to 33.34 thousand metric tons this quarter. (Table 1)

Figure 2. Distribution and Annual Growth Rate of Chicken Laying Flock Inventory by Type, Philippines: as of 30 June 2021 – 2023^p



^r – revised

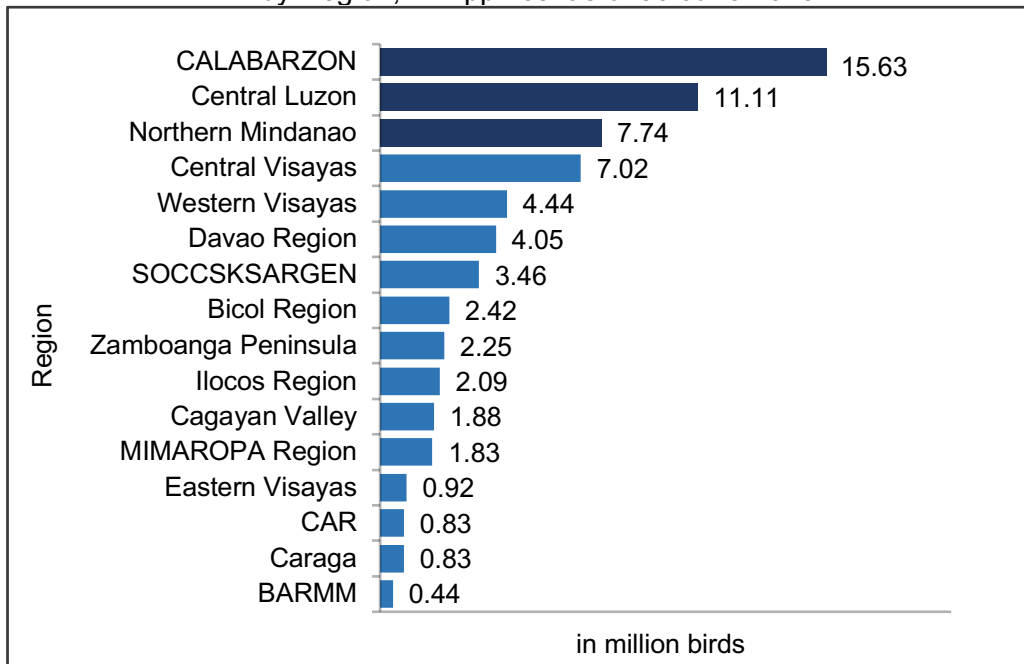
^p – preliminary

Sources: Philippine Statistics Authority, BLPS and CLPS

As of 30 June 2023, the country’s total chicken laying flock was estimated at 66.96 million birds. This represents a decline of -1.4 percent from the inventory level of 67.87 million birds in the same period of the previous year. The layer chicken inventory recorded a decrease of -2.7 percent, while native/improved chicken inventory grew by 1.4 percent. Of the total laying flock, layer chicken shared 66.1 percent, while the remaining 33.9 percent were native/improved chicken. (Figure 2 and Table 2)

Fl

Figure 3. Distribution of Total Chicken Laying Flock Inventory by Region, Philippines: as of 30 June 2023^p

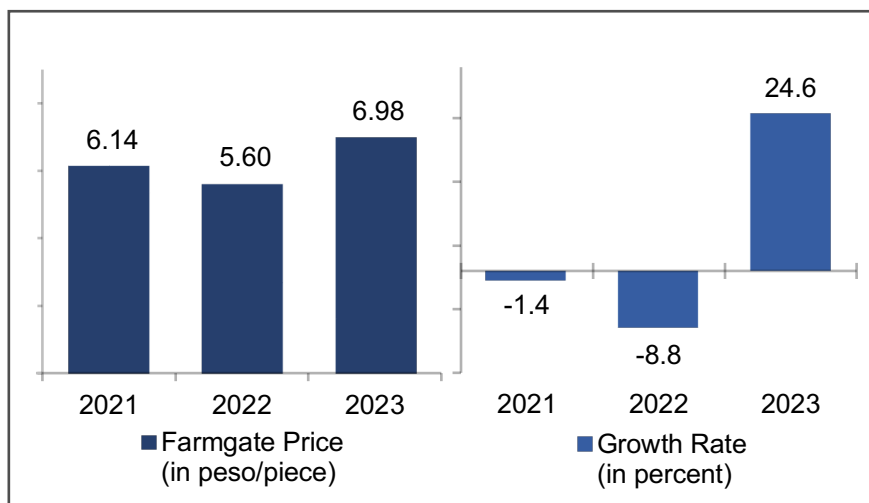


^p – preliminary

Sources: Philippine Statistics Authority, BLPS and CLPS

CALABARZON recorded the highest laying flock population of 15.63 million birds during the period. This was followed by Central Luzon and Northern Mindanao with corresponding inventories of 11.11 million birds and 7.74 million birds. These three regions shared 51.5 percent to the country’s total chicken laying flock population as of 30 June 2023. (Figure 3 and Table 2)

Figure 4. Average Farmgate Price and Annual Growth Rate of Chicken Egg, Philippines April to June 2021 – 2023^p



^p – preliminary

Sources: Philippine Statistics Authority, 2021 Farm Prices Survey, 2022 – 2023 BLPS, and 2022 – 2023 CLPS

The average farmgate price of chicken egg for this quarter was quoted at PhP 6.98 per piece, which was 24.6 percent higher than the previous year's same quarter average farmgate price of PhP 5.60 per piece. (Figure 4 and Table 3)

In the second quarter of 2023, the highest average farmgate price was recorded in April at PhP 6.99 per piece, while the lowest average farmgate price was observed in June at PhP 6.96 per piece. (Table 3)



DIVINA GRACIA L. DEL PRADO, PhD

Assistant Secretary

Deputy National Statistician

Sectoral Statistics Office

RCL/PSJ

STATISTICAL TABLES

Table 1. Volume of Chicken Egg Production by Region, Philippines
April to June 2021 – 2023^P

Region	Production (in metric tons)			Annual Growth Rate (in percent)		Percent Share
	2021	2022	2023 ^P	2022	2023 ^P	2023 ^P
Philippines	167,934	185,581	181,740	10.5	-2.1	100.0
NCR	6	..	..	-100.0	..	..
CAR	1,456	1,387	1,443	-4.7	4.0	0.8
I – Ilocos Region	5,134	4,901	4,822	-4.6	-1.6	2.7
II – Cagayan Valley	3,954	4,111	4,106	4.0	-0.1	2.3
III – Central Luzon	33,727	38,222	33,342	13.3	-12.8	18.3
IVA – CALABARZON	56,108	63,481	59,863	13.1	-5.7	32.9
MIMAROPA Region	2,314	2,456	2,624	6.1	6.8	1.4
V – Bicol Region	3,819	4,029	4,627	5.5	14.8	2.5
VI – Western Visayas	8,908	9,292	9,709	4.3	4.5	5.3
VII – Central Visayas	16,488	21,247	19,971	28.9	-6.0	11.0
VIII – Eastern Visayas	1,485	1,811	1,458	21.9	-19.5	0.8
IX – Zamboanga Peninsula	4,645	4,535	4,649	-2.4	2.5	2.6
X – Northern Mindanao	12,841	12,384	15,939	-3.6	28.7	8.8
XI – Davao Region	7,692	7,383	7,633	-4.0	3.4	4.2
XII – SOCCSKSARGEN	6,507	7,191	8,704	10.5	21.0	4.8
XIII – Caraga	2,086	2,639	2,357	26.5	-10.7	1.3
BARMM ^{1/}	763	514	494	-32.7	-4.0	0.3

.. – data not applicable

^P – preliminary

^{1/} – The sample coverage for BARMM in 2023 includes provinces of Maguindanao del Sur and Maguindanao del Norte (previously Province of Maguindanao), Cotabato City, and the Eight Area Clusters (63 barangays, previously from Province of Cotabato).

Note: Details may not add up to total due to rounding. Growth rate and percent share may yield different results when computed manually due to rounding.

Sources: Philippine Statistics Authority, Backyard Livestock and Poultry Survey, and Commercial Livestock and Poultry Survey

Table 2. Chicken Laying Flock Inventory by Chicken Type and Region, Philippines
As of 30 June 2021 – 2023^P

Region/Type	Inventory (in million birds)			Annual Growth Rate (in percent)		Percent Share
	2021	2022 ^r	2023 ^P	2022 ^r	2023 ^P	2023 ^P
Total Chicken						
Philippines	62.22	67.87	66.96	9.1	-1.4	100.0
NCR	a/	..	..	-100.0	..	..
CAR	0.63	0.72	0.83	13.9	15.0	1.2
I – Ilocos Region	2.33	2.28	2.09	-2.5	-8.2	3.1
II – Cagayan Valley	1.92	1.89	1.88	-1.7	-0.4	2.8
III – Central Luzon	10.88	11.69	11.11	7.4	-4.9	16.6
IVA – CALABARZON	13.94	16.71	15.63	19.9	-6.4	23.3
MIMAROPA Region	1.95	1.98	1.83	1.4	-7.4	2.7
V – Bicol Region	2.17	2.11	2.42	-2.9	14.7	3.6
VI – Western Visayas	4.86	4.98	4.44	2.4	-10.7	6.6
VII – Central Visayas	6.56	6.91	7.02	5.4	1.6	10.5
VIII – Eastern Visayas	0.65	0.82	0.92	27.2	11.8	1.4
IX – Zamboanga Peninsula	2.26	2.23	2.25	-1.4	0.9	3.4
X – Northern Mindanao	5.85	6.91	7.74	18.1	12.1	11.6
XI – Davao Region	4.11	4.04	4.05	-1.8	0.4	6.1
XII – SOCCSKSARGEN	2.81	3.19	3.46	13.6	8.6	5.2
XIII – Caraga	0.91	1.02	0.83	11.0	-18.4	1.2
BARMM ^{1/}	0.38	0.42	0.44	10.1	6.5	0.7
Native/Improved Chicken						
Philippines	23.04	22.42	22.73	-2.7	1.4	100.0
NCR	a/	..	..	-100.0	..	..
CAR	0.43	0.50	0.59	17.5	18.3	2.6
I – Ilocos Region	1.33	1.14	1.11	-14.3	-2.4	4.9
II – Cagayan Valley	1.08	0.96	0.99	-10.6	2.7	4.3
III – Central Luzon	1.98	2.15	2.15	8.2	0.0	9.4
IVA – CALABARZON	0.57	0.54	0.42	-4.6	-23.0	1.8
MIMAROPA Region	1.60	1.52	1.38	-4.9	-9.4	6.1
V – Bicol Region	1.54	1.48	1.74	-3.9	17.8	7.7
VI – Western Visayas	3.67	3.77	3.27	2.8	-13.1	14.4
VII – Central Visayas	2.26	2.06	2.33	-8.9	13.2	10.3
VIII – Eastern Visayas	0.22	0.31	0.44	46.0	40.3	1.9
IX – Zamboanga Peninsula	1.29	1.25	1.47	-3.2	17.5	6.4
X – Northern Mindanao	2.41	2.50	2.63	3.5	5.3	11.6
XI – Davao Region	2.62	2.18	2.22	-16.9	1.9	9.8
XII – SOCCSKSARGEN	1.24	1.28	1.28	3.2	-0.2	5.6
XIII – Caraga	0.44	0.37	0.27	-15.6	-25.5	1.2
BARMM ^{1/}	0.38	0.42	0.44	10.1	6.5	2.0

Continued

Table 2. -- Concluded

Region/Type	Inventory (in million birds)			Annual Growth Rate (in percent)		Percent Share
	2021	2022 ^r	2023 ^p	2022 ^r	2023 ^p	2023 ^p
Layer Chicken						
Philippines	39.18	45.46	44.23	16.0	-2.7	100.0
NCR	..	..	..	..	..	..
CAR	0.21	0.22	0.24	6.6	7.5	0.5
I – Ilocos Region	1.00	1.14	0.98	13.2	-14.1	2.2
II – Cagayan Valley	0.85	0.93	0.89	9.6	-3.7	2.0
III – Central Luzon	8.90	9.54	8.96	7.2	-6.1	20.3
IVA – CALABARZON	13.37	16.16	15.21	20.9	-5.9	34.4
MIMAROPA Region	0.35	0.45	0.45	30.1	-0.5	1.0
V – Bicol Region	0.64	0.63	0.68	-0.4	7.7	1.5
VI – Western Visayas	1.20	1.21	1.17	1.3	-3.5	2.6
VII – Central Visayas	4.29	4.85	4.69	13.0	-3.3	10.6
VIII – Eastern Visayas	0.43	0.51	0.48	17.9	-5.8	1.1
IX – Zamboanga Peninsula	0.97	0.98	0.78	0.9	-20.3	1.8
X – Northern Mindanao	3.44	4.41	5.11	28.4	15.9	11.6
XI – Davao Region	1.49	1.86	1.84	24.8	-1.3	4.2
XII – SOCCSKSARGEN	1.57	1.91	2.19	21.8	14.4	4.9
XIII – Caraga	0.48	0.65	0.55	35.3	-14.3	1.3
BARMM	..	..	..	..	..	..

.. – data not applicable

^r – revised

^p – preliminary

^{1/} – The sample coverage for BARMM in 2023 includes provinces of Maguindanao del Sur and Maguindanao del Norte (previously Province of Maguindanao), Cotabato City, and the Eight Area Clusters (63 barangays, previously from Province of Cotabato).

a/ – less than 0.01 million birds

Note: Details may not add up to total due to rounding. Growth rate and percent share may yield different results when computed manually due to rounding.

Sources: Philippine Statistics Authority, Backyard Livestock and Poultry Survey, and Commercial Livestock and Poultry Survey

Table 3. Average Farmgate Price of Chicken Egg, Philippines
April to June 2021 – 2023^p

Month	Average Farmgate Price (in peso per piece)			Annual Growth Rate (in percent)	
	2021	2022	2023 ^p	2022	2023 ^p
Average	6.14	5.60	6.98	-8.8	24.6
April	6.26	5.54	6.99	-11.4	26.2
May	6.25	5.55	6.98	-11.1	25.6
June	5.90	5.70	6.96	-3.3	22.0

^p – preliminary

Note: Quarterly average and growth rate may yield different results when computed manually due to rounding.

Sources: Philippine Statistics Authority, 2021 Farm Prices Survey, 2022 – 2023 Backyard Livestock and Poultry Survey, and 2022 – 2023 Commercial Livestock and Poultry Survey

TECHNICAL NOTES

I. Introduction

The Chicken Egg Situation Report presents the industry situation in terms of volume of production, inventory by chicken type, and monthly average farmgate prices. It serves as a ready reference for the various clients and stakeholders of the Philippine Statistics Authority (PSA) in the agriculture sector.

The data for this report were collected by PSA through the two surveys, namely, Backyard Livestock and Poultry Survey (BLPS) and the Commercial Livestock and Poultry Survey (CLPS).

The BLPS aims to generate estimates on the supply and disposition of livestock and poultry commodities at the household level. In the second quarter of 2023, the number of sample households covered was 21,884 from the 1,156 sample barangays nationwide. On the other hand, the CLPS seeks to generate estimates on the supply and disposition of livestock and poultry commodities from the sample establishments. There were 728 layer sample establishments covered in the second quarter of 2023.

Both surveys are conducted quarterly in all provinces, including National Capital Region (NCR). Moreover, the commodities covered in the surveys include: cattle, carabao, swine, goat, chicken, duck, and other animals raised/tended by households and establishments.

II. Data Collection

A. Backyard Livestock and Poultry Survey

1. Data collection procedure

The field data collection for the second quarter of 2023 was conducted from 01 to 08 July 2023. The data collection was undertaken by hired Statistical Researchers (SRs) through face-to-face interview with qualified respondents of the sample households. Prior to data collection, training of selected staff from Field Offices, including SRs, was conducted to ensure uniform understanding of concepts and proper implementation of survey procedures. Field and manual editing of the accomplished questionnaires was done to ensure completeness, consistency, and reasonableness of the information gathered.

2. Survey Questionnaire

The BLPS Questionnaire is a 19-page form composed of 16 blocks that aims to gather information on the basic characteristics and operations of the household.

The data items included in the survey are as follows:

- a. Type of household operation/purpose
- b. Inventory by age

- c. Supply indicator (hatched live, received/acquired)
- d. Dressed in the household/farm
- e. Sold live for dressing and for other purposes
- f. Disposition by areas of destination
- g. Average liveweight
- h. Average farmgate price
- i. Number of deaths/losses and cause/reason
- j. Egg production indicators
- k. Egg disposition
- l. Assessment of household/farm production

B. Commercial Livestock and Poultry Survey

1. Data collection procedure

The schedule of field data collection for the second quarter of 2023 was during the last 10 days of June 2023. The data collection was undertaken by hired SRs through face-to-face interview with qualified respondents of the farms/establishments. Prior to data collection, training of Field Office personnel, including SRs, was conducted to ensure that the procedures and concepts of the survey are understood and properly implemented. Field and manual editing of the accomplished questionnaires was done to ensure completeness, consistency, and reasonableness of the information gathered.

2. Survey Questionnaire

The CLPS Layer Chicken Survey Questionnaire is a five-page questionnaire that aims to gather necessary information on supply and disposition of layer commercial farms/establishments.

The data items included in the survey are as follows:

- a. Type of establishment operation
- b. Inventory by age
- c. Supply indicator (hatched live, received/acquired)
- d. Dressed in the establishment
- e. Sold live for dressing and for other purposes
- f. Disposition by areas of destination
- g. Average liveweight
- h. Average farmgate price
- i. Number of deaths/losses and cause/reason
- j. Egg production indicators
- k. Egg disposition
- l. Assessment of establishments production

III. Sampling Design

A. Backyard Livestock and Poultry Survey

1. Sampling Frame

The BLPS sampling frame is based on the results of the 2017 Listing of Farm Households (LFH) and 2012 Census of Agriculture and Fisheries (CAF). For barangays not covered in the 2017 LFH, the list of households was taken from the 2012 CAF. The sampling frame is updated quarterly based on the status of the sampled households using structured Frame Maintenance Form (FMF) submitted by the Provincial Statistical Offices every quarter.

2. Sample Selection Procedure

The BLPS uses two-stage sampling design. The first stage is the selection of sample barangays or Primary Sampling Units (PSUs) using probability proportional to size where the measure of size is the total animal inventory.

The second stage is the selection of sample households or Secondary Sampling Units (SSUs) that are engaged in livestock and poultry raising in the sampled barangays using systematic sampling.

The number of sample households per selected barangay is 20 but this could be less if the selected barangay has less than 20 households. The sample households per quarter are independent.

The sample size was determined based on a five percent (5%) target coefficient of variation.

3. Domain

The domain of the survey is the province. In the case of NCR, the region is the domain.

4. Estimation Procedure

a. Survey Weight

a.1. Base Weight

PSU Weight

The PSU weight is computed as follows:

$$w_{1i} = \frac{X}{aX_i}$$

Where:

w_{1i} = PSU weight

a = barangay sample size for the province

X = total animal inventory for the province

X_i = animal inventory of barangay i

i = subscript for barangay

SSU Weight

The SSU weight is computed as follows:

$$w_{2ij} = \begin{cases} \frac{N_i}{n_i} & , \text{if household has at most 3 operators} \\ \frac{N_i}{n_i} \times \frac{M_{ij}}{m_{ij}} & , \text{if household has greater than 3 operators} \end{cases}$$

Where:

w_{2ij} = SSU weight

N_i = total number of households in barangay i

n_i = number of sample households in barangay i

M_{ij} = total number of operators in household j of barangay i

m_{ij} = number of sample operators in household j of barangay i

j = subscript for household

Base Weight

The base weight is the product of the PSU and SSU weights. That is,

$$w_{ij} = w_{1i} \times w_{2ij}$$

Where:

w_{ij} = base weight of household j in barangay i

w_{1i} = PSU weight

w_{2ij} = SSU weight

a.2. Adjustment Factor

The adjustment factor to account for non-response is given as follows:

$$A_p = \frac{\sum_{i=1}^a \sum_{j=1}^{n_i} w_{ij} X_{1ij}}{\sum_{i=1}^a \sum_{j=1}^{n_i} w_{ij} X_{2ij}}$$

Where:

A_p = adjustment factor for province p

X_{1ij} = eligible status of household j in barangay i (1 if eligible, 0 otherwise)

X_{2ij} = responding status of household j in barangay i (1 if responding, 0 otherwise)

Eligible households are the following:

- Interview completed;
- Refused to be interviewed without replacement;
- Temporarily away/Not at home without replacement; and
- HH temporarily not accessible without replacement.

Ineligible households are the following:

- Resides outside the barangay;
- Unknown in the locality; and
- Deceased (No other livestock and poultry operator in the household).

a.3. Final Weight

The final weight formula is given as follows:

$$w'_{ij} = w_{ij} \times A_p$$

Where:

w'_{ij} = final weight for province p

w_{ij} = base weight of household j in barangay i

A_p = adjustment factor for province p

b. Estimation of Total

b.1. Estimation of Provincial Total

Estimation of provincial total is done per animal type and the formula is given as follows:

$$\hat{Y}_p = \sum_{i=1}^a \sum_{j=1}^{n_i} w'_{ij} y_{ij}$$

Where:

\hat{Y}_p = estimated total for province p

y_{ij} = survey data (inventory, production, etc.) for household j in barangay i

b.2. Estimation of Regional and National Total

The regional estimates are obtained by aggregating the estimates for the provinces within the region, while the national estimate is derived by adding all the regional estimates obtained in each region.

B. Commercial Livestock and Poultry Survey

1. Sampling Frame

The CLPS frame is based on the results of the 2021 Updating of the List of Establishments (ULE). It is updated quarterly based on the results of visit of the sample farms/establishments using the FMF.

2. Sample Selection Procedure

The CLPS uses stratified probability proportional to size sampling design, where the establishment is the primary sampling unit. The animal type serves as a stratification variable and the size measure is the maximum farm/housing capacity of the establishment. Per animal type, the establishments are sorted by maximum farm/housing capacity and sample establishments are selected using systematic sampling. A panel sample establishment is maintained for a year and a new set of samples is selected during the first quarter of the next year.

Complete Enumeration (CE) is applied for provinces with less than 25 commercial farms/establishments, otherwise, sampling is used.

3. Domain

The domain of the survey is the province. In the case of NCR, the region is the domain.

4. Estimation Procedure

a. Survey Weight

a.1. Base Weight

The base weight per animal type is given as follows:

$$w_i = \frac{X}{aX_i}$$

Where:

w_i = base weight of establishment i

a = number of sample establishments in the province

X_i = maximum farm/housing capacity of establishment i

X = total maximum farm/housing capacity of the province

a.2. Adjustment Factor

The adjustment factor to account for non-response is given as follows:

$$A_p = \frac{\sum_{i=1}^a w_i X_{1i}}{\sum_{i=1}^a w_i X_{2i}}$$

Where:

A_p = adjustment factor for province p

X_{1i} = eligible status of establishment i (1 if eligible, 0 otherwise)

X_{2i} = responding status of establishment i (1 if responding, 0 otherwise)

Eligible establishments are the following:

- Operational
- Refusal
- Cannot be contacted/Not accessible

Ineligible establishments are the following:

- Temporarily Stopped Operation
- Permanently Closed/Stopped Operation
- Shifted Farm Operation
- Cannot Be Located
- Duplicate
- Out-of-scope – Recreation
- Out-of-scope – Change Sector
- Out-of-scope – Main Office/Ancillary Unit

a.3. Final Weight

The final weight formula is given as follows:

$$w'_i = w_i \times A_p$$

Where:

w'_i = final weight of establishment i

w_i = base weight of establishment i

A_p = adjustment factor for province p

b. Estimation

b.1. Estimation for the Province

Estimation of provincial total is done per animal type and the formula is given as follows:

$$\hat{Y}_p = \sum_{i=1}^a w'_i y_i$$

Where:

\hat{Y}_p = estimated total for province p

y_i = survey data (inventory, production, etc.) for establishment i

b.2. Estimation of Regional and National Total

The regional estimates are obtained by aggregating the estimates for the provinces within the region, while the national estimates are derived by adding all the regional estimates obtained in each region.

IV. Concepts and Definitions of Terms

Farmgate price refers to the price received by raisers for their produce at the location of farm. Thus, marketing costs, such as transport and other marketing costs (if any) incurred in selling the produce, are not included in the farmgate prices.

Inventory refers to the actual number of chicken laying flock and native/improved adult female present in the farm as of a specific reference date.

Volume of production refers to the volume of chicken egg disposed from locally-raised chicken including those chicken eggs which were shipped out to other regions/provinces.

V. Dissemination of Results and Revision

The PSA disseminates the Chicken Egg Situation Report quarterly and is uploaded in the PSA Website.

The livestock and poultry statistics follows the revision policy as stipulated in the PSA Board Resolution No. 1, Series of 2017-119 approving the revision of quarterly estimates on agricultural production, prices, and related statistics to be limited to the immediately preceding quarter and for the past three years with quarterly breakdown to be done only during May of the current year.

VI. Citation

Philippine Statistics Authority. (22 August 2023). *Technical Notes on Q2 2023 Chicken Egg Situation Report*. bit.ly/chicken-egg-technical-notes



VII. Contact Information

Precious S. Jacinto
(Supervising Statistical Specialist)
Officer-in-Charge
Livestock and Poultry Statistics Division
Economic Sector Statistics Service
Sectoral Statistics Office
Philippine Statistics Authority
Email Address: p.jacinto@psa.gov.ph

For data request, you may contact the:
Knowledge Management and Communications Division
Telephone: (632) 8462-6600 loc. 839
Email Address: info@psa.gov.ph