Sharing results of Skouy chicken performance (Go &G1) with Nucleus Farms in Tramkok district, Takeo province, Cambodia

Under

Community Innovation Platform

14th December 2024

Prepared by LDC team

Table content

I. Introduction

AsCGG is ACIAR funded project with principal partners in Cambodia and Vietnam that aims to test and avail high-producing, farmer-preferred chicken strains to increase smallholder chicken production and productivity in the two countries. The project had established a participatory indigenous chicken breed improvement program in Cambodia in three selected Nucleus breeding farms in Tramkok district, Takeo province. This research for development activity were jointly be planned, designed, implemented, monitored, and evaluated by National Animal Health and Production Research Institute (NAHPRI), Livestock Development for Community Livelihood Organization (LDC), and smallholder based Private breeding farms and International Livestock Research Institute (ILRI). Community Innovation Platform is one of project activities that need to established with a primary goal of mobilizing public and private sector engagement in the smallholder chicken value chain in community level. This report is the fourth report of community innovation platform.

1. Objective

- To share the chick performance of first generation from 0-16 weeks (mortality, feed intake, daily/weekly growth etc)
- To share eggs production from zero generation
- To share the body weight of chicken from Go and G1 at week 16)

2. Expectation from participant

At the end of the meeting, participants will gain

- Know about chick and chicken performance from week 0-16 and amount of feed need to spend for one chicken (FCR)
- Know about the eggs production per hen in zero generation

3. Timeline:

The meeting was started on 14th December,2024, with slide presentation and discussion on data among participants and facilitators.

4. Location

The meeting was conducted in one of nucleus farm namely Mrs. Korn Phearom located in O'phot village, Ang Tasom commune, Tramkork district, Takeo province.

5. Facilitator in the training

- The key facilitator in this training was
  - Dr. Chhay Ty Deputy Director in Livestock Development for Community Livelihood Organization (LDC).
  - Mr. Phem Menghak, Animal Breeding and Genetic Lab, National Animal Health and Production Research Institute (NAHPRI),
  - Mr. Son Pov Project officer in Livestock Development for Community Livelihood Organization (LDC).

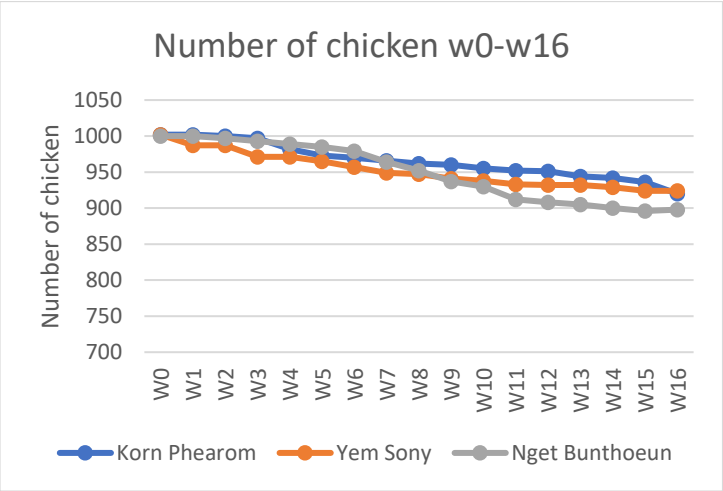
6. Participants

There are 22 participants (woman 9) attended in the meeting in which 1 representative from Takeo POAHP, 3 persons from nucleus farm, 3 data collections, 9 chicken producers, 3 students, 2 persons from LDC and 1 person from NAHPRI.

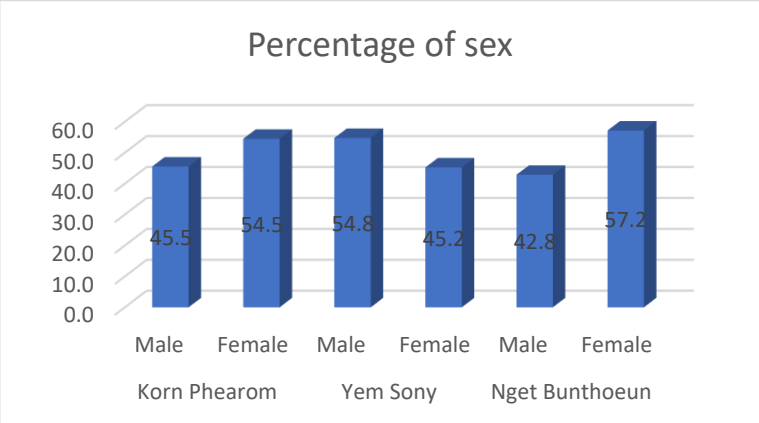
II. Result

2.1. Number of chickens from first generation

The chicks were started with amount of 1000 heads/household in three nucleus farms but the number of chicks were drop in every week. The total mortality of chicken was high in farm of Mrs Nget Bunthoeun about 102 heads or 10.2% compared with Mrs. Korn Phearom was 82 heads or 8.18% and lowest mortality found in Mr. Yem Sony was 78 heads or 7.78%. There were some reasons to made chicken dead such as hot weather during dry season and heavy reason and strong wind in early and mid of rainy season.



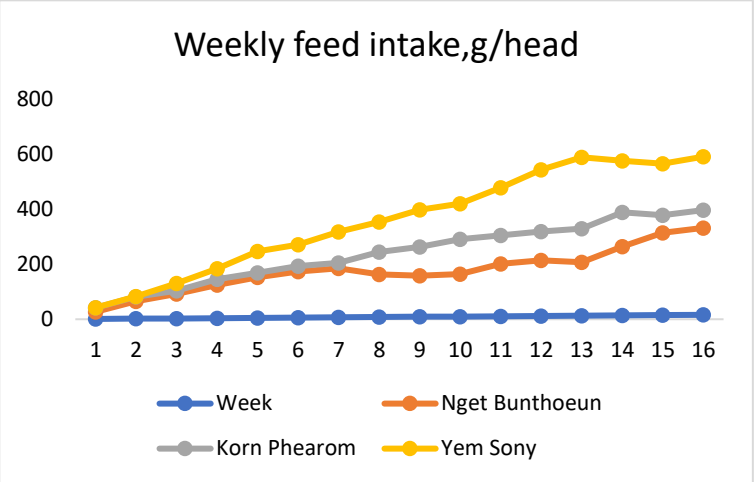
2.2. Percentage of sex in week 16 from first generation



The chicks were not selected during the start fattening but the end of week 16, all chicken were checked the sex (male and female) chicken. The percentage of female chicken found higher than male from two nucleus farms excepted Mr. Yem Sony's farm has high male chicken than female.

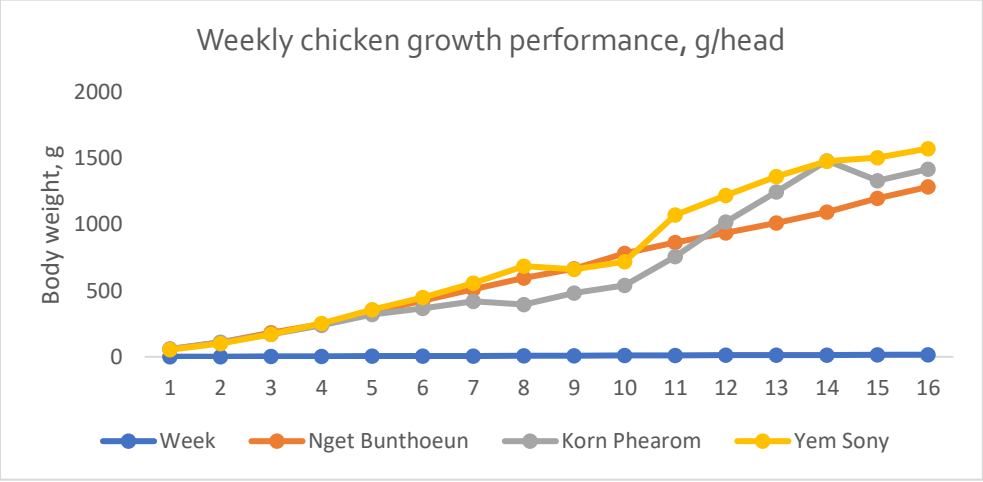
2.3. Weekly feed intake from first generation

Feed intake was measured in every week but using amount of feed offer minus with amount of feed refusal. Weekly intake was increase from week to week and amount of feed intake was highest from Mr. Yem Sony's farm and Mrs. Korn Phearom but less feed intake from Mrs. Nget Bunthoeun. The different amount of feed intake can cause of the number of chickens remain during the data collection.

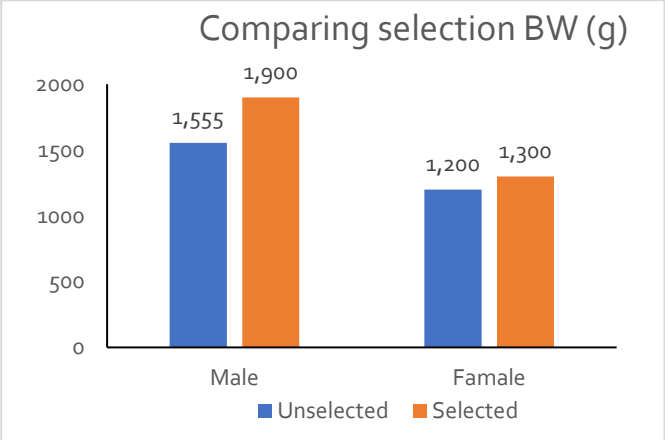


2.4. Weekly chicken growth performance from first generation

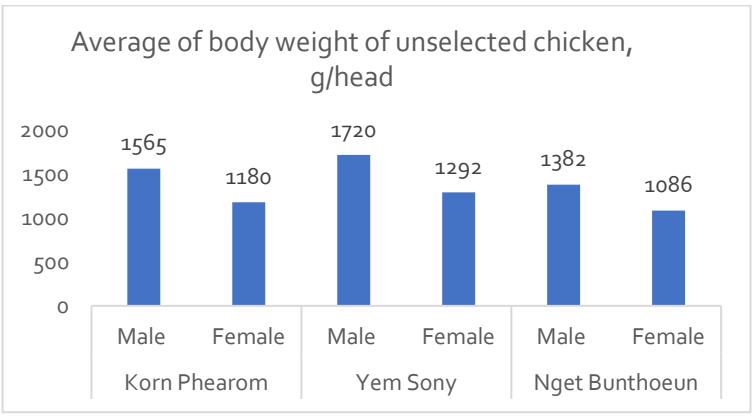
The chick body weight was measure in group in weekly from week 1 to week 15 and then individual in week 16. The body weight of chick was similar at starting (DoC) and chick growth performance were similar among three nucleus farms from week 1-5 and then performance started different from week 6 onward, among three nucleus farms, chicken body weight was increasing much more in Mr. Yem Sony's farm and Mrs. Nget Bunthoeun and the poor chicken performance was in Mrs. Korn Phearom, however, Mrs. Korn Phearom chicken started growth better in week 12-14 and then drop in week 15.

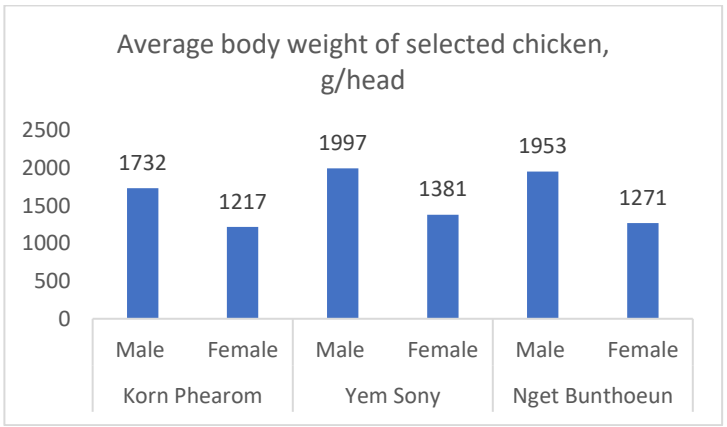


2.5. Body weight gain from first generation



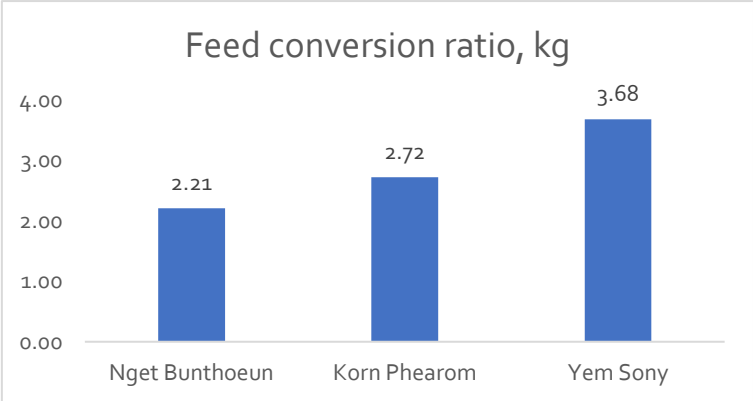
The body weight gain at the end of week 16 found that the male chicken gains more weight than female in general. The body weight of unselected male weight ranges from 1382-1720g/head in 16 weeks in average about 1556g/head, while the female chicken gain weight ranged from 1086-1292g/head in average is 1186g/head. The body weight of chicken at week 16 is much more body weight when chicken selected for breeding, the body weight of male can be ranged from 1732-1997 g/head and female can reach from 1217 to 1381 g/head in 16 weeks.





2.6. Feed conversion ratio

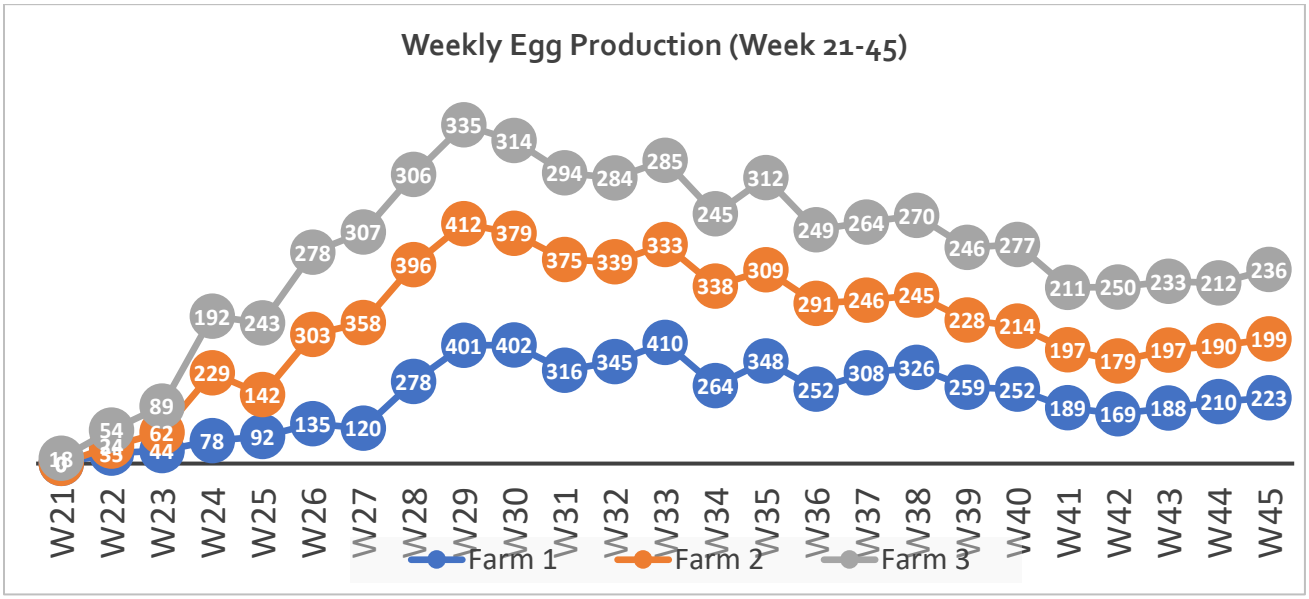
The feed conversion ratio was calculated by using feed intake divided with body weight gain. The feed conversion ratio was lowest from Mrs. Nget Bunthoeun (2.21kg) and then Mrs. Korn Phearom was 2.72g and the highest was 3.68kg from Mr. Yem Sony.



2.7. Eggs production from zero generation

The eggs production was record when the hen reaches to week 21 of ages, the eggs production was increase from week 21-28 and then started drop down from week29 onward. The average daily eggs production was about 37.4%/hen/day or equal 136.5 eggs/hen/year. The hen mortality also records during the data collection, the higher hen mortality was Mrs. Korn Phearom (13.0%), then Mr. Yem Sony (11.1%) and lowest was Mrs. Nget Bunthoeun (4.0%).

Table 1: Egg production from hen in zero generation				
Parameter	**Korn Phearom**	**Yem Sony**	**Nget Bunthoeun**	**Average**
Total egg production	5644	6185	6004	5944.3
Average Hen Day (%)	38.3	39.3	34.7	37.4
Total egg/hen	61.4	62.5	60.0	61.3
Hen mortality rate (%)	13.0	11.1	4.00	9.38



2.8. Incubation and Hatchability Data

Base on the data collection from three nucleus farm found that fertile eggs were high and ranged from 81.8-90.8% and hatching was ranged from 79.5-88.3% and average weight of eggs was ranged from 30.3-32.4g/egg.

Table 2: Incubation and hatchability data from hen				
Nucleus farm	**Fertility (%)**	**Hatch (%)**	**Number**	**Average (g)**
Korn Phearom	83.5	88.3	650	30.3
Yem Sony	81.8	79.5	720	31.2
Nget Bunthoeun	90.8	81.3	760	32.4

2.9. Comparation body weight of chicken in Go and G1 in week 16

Totally the body weight of chicken at week 16 in Go and G1 found that the male chicken has high body weight compared with female chicken in both generations. The average of female weight in Go was 1.19kg and male was 1.40kg/head while the male chicken in Go was 1.59kg compare with G1 was 1.73kg.

Table 3: Comparation body weight of chicken in Go and G1 in week 16

	Korn Phearom		**Yem Sony**		**Nget Bunthoeun**		**Average**	
	Go	G1	Go	G1	Go	G1	**Go**	**G1**
Female	1.18	1.46	1.29	1.37	1.09	1.38	**1.19**	**1.40**
Male	1.56	1.68	1.72	1.85	1.48	1.67	**1.59**	**1.73**

III. Conclusion

Upon sharing the data on chicken performance from Go-G1 and egg production from zero generation, participants include nucleus farms can know and aware the chicken production. The different production can vary based on management of nucleus farms include weather (dry and raining season) etc.

IV. Annex

1: Agenda

Time	Content/activities	Responsible/facilitator
8:00-8:15	Register	
8:15-8:30	Remark by project partner	Dr. Chhay Ty
8:30-8:45	Open remark by POAHP	Represent
8:45-8:50	Group photo	All
8:50-10:00	Tea break	All
10:00-10:20	Share the chick performance from 0-16 weeks	Dr. Chhay Ty
10:20-10:50	Share eggs production from generation zero	Mr. Phem Menghak
10:50-11: 30	Discussion on the data	All
11:30-11:45	Next work plan	All

2: List of attendants

លរ	**Name**	**នាមនិងគោលនាម (Name)**	**ភេទ (Sex)**	**មុខរបរ (Occupation)**	**លេខទូរស័ព្ទ (Telephone)**
1	Chan Sothea	ចាន់ សុធា	ប	ចិញ្ចឹមមាន់	077 896 302
2	Pich Vongrithy	ពេជ្រ វង្សរិទ្ធី	ប	ចិញ្ចឹមមាន់	077 516 459
3	Rin Kimhong	រិន គីមហុង	ប	កសិដ្ឋានបន្សុតមាន់ស្គុយ	099 997 737
4	Nac Sopheanin	ណាក់ សុភានីន	ប	ប្រមូលទិន្នន័យ	097 663 6571

5	Kong Pov	កន ពៅ	ប	ចិញ្ចឹមមាន់	012 308 462
6	Et Mary Ratha	អេត ម៉ារីរដ្ឋា	ស	និស្សិត	017 458 924
7	San NaKry	សាន ណាគ្រី	ស	និស្សិត	097 586 1228
8	Vorn Vichika	វន វិច្ឆិកា	ស	និស្សិត	088 214 4323
9	Nhat Bunrong	ញ៉ាត ប៊ុនរុង	ប	ប្រមូលទិន្នន័យ	095 471 135
10	Kon Phearom	កន ភារម្យ	ស	កសិដ្ឋានបន្សុតមាន់ស្គុយ	095 414 497
11	Koy Naav	កុយ នាវ	ស	ចិញ្ចឹមមាន់	090 630 966
12	Pot Danet	ពត ដាណែត	ស	ចិញ្ចឹមមាន់	011 321 388
13	Tit Sopheap	ទិត សុភាព	ស	ចិញ្ចឹមមាន់	
14	Yem Soni	យ៉ែម សូនី	ប	កសិដ្ឋានបន្សុតមាន់ស្គុយ	096 361 6457
15	Som Sarom	សំ សារុំ	ប	ចិញ្ចឹមមាន់	098 453 716
16	Dat Sarong	ដេត សារ៉ង	ប	ចិញ្ចឹមមាន់	
17	Min Sokhon	មិន សុខន	ស	ចិញ្ចឹមមាន់	017 428 129
18	Yem Sophy	យ៉ែម សុភី	ស	ប្រមូលទិន្នន័យ	
19	Chhay Ty	ឆាយ ទី	ប	LDC	092 616160
20	Khem Menghak	ខឹម ម៉េងហាក់	ប	NAHPRI	098 418884
21	Son Pov	ស៊ុន ពៅ	ប	LDC	093 852421
22	Ung Sophin	ឈ្មោះ អ៊ឹង សុភិន	ប	Vice office of POAHP	012 299798