

CROSSBRED OF AYAM KAMPUNG AS AN EFFORT TO MEET THE CONSUMERS NEED OF AYAM KAMPUNG IN THE FUTURE

Sri Nastiti Jarmani¹, R. Dharsana¹, W.K. Sejati², Edi Basuno¹
and B. Wibowo¹

ABSTRACT

Ayam kampung (local chicken) was well known in Indonesia since many years ago and traditionally established mainly in rural areas. The present productivity is not sufficient to meet the consumers need due to increase of the people welfare. Meanwhile, ayam kampung has special taste to the traditional recipes. An experiment was conducted to get the crossbred of chicken with similar appearance and performance with ayam kampung by crossing local cockerels (Pelung, Bangkok, White Kedu and Sentul) with layer strain H&N and broiler strain AKSAS. The crossbreeds were tested to 80 consumers of ayam kampung to find out the preference of the exterior and carcass performance of these crossbreeds. Data is shown descriptively. Results indicated that 82.25% consumers prefer the exterior performance of crossbred of Bangkok and Pelung with AKSAS and H&N than with White Kedu and Sentul. Meanwhile, the exterior performance of crossbred of local cockerels with AKSAS is extremely similar as ayam kampung, and also the crossbred of Pelung and Bangkok with H&N; 54.75% of the consumers prefer white carcass and less fat of the carcass than yellowish or redish carcass. The meat tenderness of crossbred of local cockerels with AKSAS are closed to the tenderness of ayam kampung.

Key words: Ayam kampung crossbred, Preference

INTRODUCTION

Ayam kampung has been well known in Indonesia since many years ago and traditionally established in rural areas. Report of the Directorate General of Livestock Services (DGLS, 1996) stated that the population of ayam kampung reach to 253.6 million or increase 4.8% annually from 1989 to 1995. This might be caused by improvement of management from an extensive to intensive management, besides due to an increase of farmer's knowledge (Nataamijaya and Jarmani, 1992).

Up to now, ayam kampung still have an important role in supporting the national need of poultry products as have been reported by DGLS (1996) that 40% of meat and 30% of egg of poultry products is contributed by ayam kampung. Meanwhile, according to ayam kampung consumers, the meat of ayam kampung is more springy (elastics) and has less fat content than broiler or other

commercial chicken. This statement is similar to the report of Tryantini *et al.* (1997). In the other case, ayam kampung is always used by most Indonesian for traditional ceremony as an offering, specifically ayam kampung strain White and Black Kedu, whereas eggs of ayam kampung is mostly used for traditional medicine ("jamu").

Recently, it has been indicated that to meet the consumers need of ayam kampung is not sufficient because the productivity of ayam kampung is lower than commercial chicken, however, demand of ayam kampung increase from year to year. Result of several experiments that have been conducted by Rukino (1976), Mansjoer and Martoyo (1977), Mulyadi *et al.* (1985) and Sarengat *et al.* (1985) indicated that crossing between local hen with commercial chicken can improve productivity of ayam kampung.

The present experiment was conducted to produce chicken, which have appearance and performance similar to ayam kampung by

¹Research Institute for Animal Production. Ciawi-Bogor, Indonesia

²Center for Agro Social-economic Research. Bogor. Indonesia

crossing local cockerels (Pelung, Bangkok, Sentul and White Kedu) with hens of commercial chicken (layer strain H&N and broiler strain AKSAS). Results of this experiment indicated that ayam kampung consumers accept "ayam kampung crossing" so the need of ayam kampung could be fulfilled.

MATERIAL AND METHODS

Experiment was conducted in Research Institute for Animal Production Bogor. Strain H&N have been chosen because its body size is relatively small which is similar to ayam kampung so it is hoped that the offspring is also of small size. Meanwhile, AKSAS was chosen because the colour is black so its exterior performance is similar to ayam kampung. Eighty of H&N crossed (32 of them were alive) that have been resulted from crossing H&N with local cockerels, and 70 of AKSAS crossed (16 of them were alive) that have been resulted from crossing AKSAS with those of local cockerels, have been tested to the ayam kampung consumers to find out their preference and acceptability about the "ayam kampung crossbred". Parameters that have been seen were performance exterior, carcass performance, live weight, carcass weight and

the meat tenderness as compared to ayam kampung.

Preliminary study was also conducted to ayam kampung consumers, sellers and owner of ayam kampung restaurant to get the information of the profile of ayam kampung restaurants. Data are served descriptively.

RESULTS AND DISCUSSION

Profile of the Ayam Kampung Consumer

According to the results of the preliminary study, the consumers of ayam kampung could be categorized into 3 groups as follows:

- a. Consumers that always consume ayam kampung daily or periodically 1 or 2 times in a week and they never consume broiler or other commercial chicken. These consumers usually like to buy ayam kampung alive so they can identify ayam kampung in details.
- b. Consumers that consume ayam kampung periodically 1 or 2 times in a week or in a month, but they also consume broiler or other commercial chicken for their main dish. These consumers usually like to buy carcass ayam kampung or ayam kampung ready to be served.
- c. Consumers that consume ayam kampung just for special occasion. For this group of consumers, ayam kampung is used for offering

Table 1. Profile of the Ayam Kampung Consumer

Criteria	Ayam kampung consumer	
	Man	%
1. Number of respondent	40	
2. Education :		
- elementary	0	0
- High school	24	60.0
- Academy/university	16	40.0
3. Occupation :		
- civil servant	15	37.5
- Private sector	16	40.0
- Others	9	22.5
4. Frequency to consume ayam kampung:		
- Daily/periodically 1 or 2 times in a week	14	35.0
- Periodically 1 or 2 times in a week		
+ Consume broiler	26	65.0
- For special occasion	40	100.0

Table 2. The Average of Live and Carcass Weight of H&N and AKSAS Crossed (grams)

Crossbred	Live weight	Carcass Weight
H&N X Pelung	933.0 ± 128.7	637.7 ± 95.9
H&N X Bangkok	975.9 ± 79.5	695.7 ± 63.5
H&N X Sentul	949.2 ± 155.0	685.8 ± 89.2
H&N X White Kedu	1004.6 ± 132.8	690.8 ± 94.5
AKSAS X Pelung	1110.3 ± 186.0	755.8 ± 136.2
AKSAS X Bangkok	951.4 ± 144.8	637.3 ± 98.9
AKSAS X Sentul	1148.6 ± 113.6	790.9 ± 111.9
AKSAS X White Kedu	1041.3 ± 107.2	713.0 ± 78.7

in the traditional ceremony, eventhough they raise their own ayam kampung. All of the consumers are included.

More than that, according to the sellers and restaurant owner of ayam kampung, most of the consumers in group (a) and (b) are people in the middle and high class of income. This statement is also indicated by result study of Pusat Penelitian dan Pengembangan Peternakan (1992), that ayam kampung consumers in Java are people who spent their money Rp.80.000.- to Rp.100.000.- at least per week for food. This could be understood since the price of ayam kampung is more expensive than broiler or other commercial chicken. Meanwhile, most of the ordinary people usually buy ayam kampung only in a certain time such as in the month of Ramadhan. Data on Table 1 explain that ayam kampung is consumed practically by all people. The difference is only in the frequency to consume.

Performance of the Ayam Kampung Crossbred

The live performance of ayam kampung crossbred that resulted from crossing H&N with Bangkok and Pelung only few of them are look a like as ayam kampung which can be identified from the feather color composition of black with few white pock-marked, meanwhile crossing H&N with Sentul and White Kedu resulted in feather composition similar to those of H&N. However, the live performance of crossing AKSAS with Pelung, Bangkok, Sentul and white Kedu are similar to ayam kampung in

which most of their feather composition are black or black pock-marked (Javanese called : "blorok hitam"). From their lives performance, looks that feather composition of the hen influenced the live performance (feather composition) of the offspring. So in the future to produce ayam kampung crossbred would be wise if the feather composition of the hen need to be judged carefully. The live and carcass weights of those crossbred are showed on Table 2. Carcass performance of H&N and AKSAS crossed are white, yellow turn to white, yellow and/or pale. Meanwhile, their meat tenderness (that have been cooked) compared to the meat tenderness of broiler or other commercial chicken varies, but most of H&N crossed have more fat content than AKSAS crossed.

Preference of the Consumers

Results of the preference test of H&N and AKSAS crossed to the ayam kampung consumers are shown in Table 3.

On the live performance (feather composition) consumers are more prefer to choose AKSAS crossed than H&N crossed, because AKSAS crossed performance are similar to ayam kampung, eventhough some of H&N -crossed also looks alike as ayam kampung. Consumers are more prefer to the chickens that have live weight of 900 to 1100 grams, because according to their opinion, is quite good for the price, the tenderness and for the family size. Meanwhile, most consumers can accept white carcass than yellow turn to white, yellow or pale.

Table 3. The Preference of Consumers to the H&N and AKSAS Crossed

Criteria	H&N Crossed				AKSAS Crossed			
	A		NA		A		NA	
	man	%	man	%	man	%	man	%
1. Live performance								
Respondent	23				10			
Number of chicken	32				16			
a. Feather composition								
*black and or black pock-marked	8	34.78	0	0.0	10	100.0	0	0.0
*white, red and or white, red pock-merked	0	0.0	15	65.22	0	0.0	0	0.0
b. Appearance								
*closed to ayam kampung	8	34.78	0	0.0	0	0.0	0	0.0
*similar to ayam kampung	0	0.0	0	0.0	10	100.0	0	0.0
2. Carcass performance								
a. Colour composition								
- white	56	78.87	0	0.0	42	80.77	0	0.0
- yellow turn to white	0	0.0	13	18.31	0	0.0	6	11.4
- yellow/pale	0	0.0	2	2.82	0	0.0	4	7.69
b. Carcass weight								
- too light	0	0.0	15	18.75	0	0.0	5	11.90
- good	54	67.5	0	0.0	46	85.7	0	0.0
- too heavy	0	0.0	11	13.75	0	0	1	2.4
c. Meat tenderness								
- close to ayam kampung	14	19.72	0	0.0	0	0.0	0	0.0
- similar to ayam kampung	0	0.0	0	0.0	52	100.0	0	0.0
- closed to comercial chicken	0	0.0	57	80.28	0	0.0	0	0.0

Foot Note : A = accepted ; NA = not accepted.

CONCLUSION

Based on the results of the present experiment it was concluded that AKSAS crossed performance is more similar to ayam kampung as compared to H&N crossed. AKSAS crossed is more acceptable by the consumers of ayam kampung than H&N crossed.

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