

SPAMAST FOOD RESILIENCY: ITIKAN SA PAMANTASAN PROJECT (IPP) - ITIK PINAS (KHAKI)

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ABSTRACT

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Itikan sa Pamantasan Project (IPP) is one of the Extension Projects by the Department of Agriculture Regional Field Office through Davao Region Research, Development and Extension Network (DARRDEN) in collaboration with State Universities and Colleges in Davao Region. The Southern Philippines Agribusiness and Marine and Aquatic School of Technology (SPAMAST) is one of the recipients of the said project.

Before the implementation of the project SPAMAST IPP, the team, together with DARRDEN, underwent benchmarking to observe and understand the management practices of the Itik-Pinas breed. A Memorandum of Agreement was signed between SPAMAST and the Department of Agriculture XI. SPAMAST established housing for the Itik-Pinas, prepared and provided feeds, and cared for 81 ducklings. The project launch was participated in by students, farmers, faculty, and staff. Monthly monitoring was conducted by DARRDEN personnel. At 18 weeks, ducks reach maturity simultaneously, merging (mating) between male and female at a 1:5 ratio. Data showed that male ducks obtained an average weight of 1,384.88 grams, while female ducks obtained 1,330.09 grams, respectively. From March 10 until July 22, 2022, the



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70 ducklings consumed 16 sacks (50 kg/sack) of feeds (grower and layer) with an average of 7.5 kilograms per day. One week after merging, the male and female ducks started laying eggs. Daily collection of eggs continues. Eggs were processed into salted eggs, balut, and incubated for duckling production. An egg and meat processing seminar was conducted among agriculture students and faculty as target beneficiaries.

INTRODUCTION

This Extension Program is an initiative of the Department of Agriculture Regional Field Office XI through the Davao Region Research, Development, and Extension Network (DARRDEN) and the State Colleges and Universities (SUCs) in Davao Region.

The Itikan sa Pamantasan Project (IPP) is not just a response to the global health crisis caused by the COVID-19 pandemic, but also a strategic alignment with the 'AHON LAHAT, PAGKAING SAPAT' (ALPAS) Kontra sa COVID-19 program. This alignment reassures us that our efforts are part of a larger, coordinated response to ensure food security in these challenging times.

Parents of SPAMAST students will be the immediate beneficiaries of such project, Itikan sa Pamantasan Project (IPP). They underwent a seminar/training on proper management of the project. It helped sustain food for the community through SUCs, which, as part of the school's agricultural extension program, could also undertake impact projects for students and their families as livelihood support.

With this process, parents and students will learn and earn simultaneously through a straightforward and comprehensive approach to training, project establishment, and management. This not only helps sustain food for the community but also paves the way for the next generation of 'Young Farmers and Agri-preneurs.' This hopeful prospect is a testament to the project's potential to transform lives and communities.

Objectives

It aimed to sustain additional food for the community through the SUCs, which shall be part of the school Extension Program in Agriculture to undertake and impart projects for students and their families as livelihood support.

1. Established Itikan sa Pamantasan Project (IPP);
2. Produce ducklings for distribution to other target beneficiaries;
3. Duck Egg Production, intended for "Balot" and "Salted Egg."
4. Duck Meat Processing for Siomai, Skinless Longanisa, and Tocino.

Target Beneficiaries

SPAMAST students, parents, faculty, school workers, and the community where the school is situated.

Review of Related Literature

Itik Pinas (IP) is a product of continuous breeding and genetic selection of the traditional native or Pateros duck popularly raised locally in the Philippines (Parungao, 2017). It is an improved egg-type Philippine mallard duck (*Anas platyrhynchos* L.) developed through the joint effort of the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development of the Department of Science and Technology (DOST-PCAARRD) and the National Swine and Poultry Research and Development Center of the Bureau of Animal Industry (BAI-NSPRDC) to boost the local duck egg production further. However, their energy and nutrient requirements are yet to be established. Most IP raisers rely on commercially available layer diets formulated based on the chicken's requirements.

Duck production in the Philippines is a lucrative enterprise. It is a multi-billion-dollar industry (Santiago et al., 2022) with a wide range of stakeholders – from duck raisers, egg processors, hatcheries, feed millers, vendors, and rice farmers – who are benefiting directly and indirectly from the industry.

The native mallard duck (*Anas platyrhynchos* L.), locally known as itik or itik Pateros, is the primary egg-type breed raised for the production of balut (cooked embryonated eggs), salted egg, and century eggs (Lambio, 2004). However, prevailing problems of the local industry – primarily, the low and inconsistent egg production and product quality – continuously hamper its way to sustainability (Lambio, 2009). The decline in productivity and inconsistent product quality resulted from the persistent lack of quality duck breeder stocks available to local raisers (Coligado, 1986; Lambio, 2004; Chang & Dagaas, 2004).

Activities Conducted for the Implementation of SPAMAST Itik-Pinas Project

1. Benchmarking of the SPAMAST IPP Team and DARRDEN Team took place at the Bahaya Itik Pinas Multiplier Farm in Calinan, Davao City, on October 7, 2021.
2. A Memorandum of Understanding (MoU) was signed between SPAMAST and the Department of Agriculture (DA) XI.
3. The construction of IPP Housing at SPAMAST in Buhangin, Malita, Davao Occidental, from February 17 to February 28, 2022.
4. The DA-RFO XI DARRDEN Team delivered 81 Itik-Pinas ducklings to SPAMAST in Buhangin, Malita, Davao Occidental, on March 10, 2022. There were 51 female and 30 male ducklings received by the SPAMAST IPP Team.
5. The “Promoting Food Resiliency through Itikan sa Pamantasan

Project (IPP)” was officially launched on April 28, 2022. The event was attended by various target beneficiaries, including farmers, students, faculty, and staff of SPAMAST, as well as LGU Barangay Officials.

6. The Department of Agriculture- RFO XI DARRDEN Team, led by Anecita Telabangco, conducted a monthly monitoring visit for the Itikan sa Pamantasan Project (IPP) at SPAMAST Buhangin Campus on June 10, 2022.
7. Weekly data gathering was conducted to track the weight of each duck.
8. When the ducks reached 18 weeks of age on July 15, 2022, they were merged, with a ratio of 1 male to 5 females. Leg tagging was initiated to distinguish between males and females.
9. A training seminar on egg and meat Processing, in collaboration with the Department of Agriculture XI – DARRDEN, was held on July 21, 2022. The event was attended by 22 participants, including BS Agriculture students and IATES faculty members.

Table 1. *Data: Itikan sa Pamantasan Project*

a. Number of heads delivered	March 10, 2022 51 Female; 30 Male
b. Number of ducklings two weeks after delivery	March 24, 2022 46 Female; 24 Male
c. Mortality rate	5 Female; 6 Male Percentage: 7.4
d. Feed consumption	16 sacks (12 sacks of grower feeds and four sacks of duck layer feeds)
e. Week 18 average weight (male)	1,384.88 grams
f. Week 18 average weight (female)	1,330.09 grams

Table 2. *Data on Egg Production*

Date started laying an egg	The total number of eggs produced
July 15- July 24	38

RESULTS AND DISCUSSION

SPAMAST-IATES, Itikan sa Pamantasan Project (IPP) started last March 10, 2022, and was officially launched on April 28, 2022. The said project started 81 ducklings (30 male and 81 female), with a mortality of 7.04% two weeks after delivery.

Data show that at 18 weeks, male ducks obtained an average weight of 1,384.88 grams, while female ducks obtained 1,330.09 grams, respectively. From March 10 until July 22, 2022, 70 ducklings consumed 16 sacks (50 kg/

sack) of feeds (grower and layer) with an average of 7.5 kilograms per day.

One week after merging the male and female ducks, the female duck started laying eggs, and 29 eggs had already been collected. Daily collection of eggs continues, to be processed as Salted Egg, Balut, and incubated for duckling production.

Meat and Egg Processing was conducted on July 21, 2022, at SPAMAST - IATES Buhangin Campus, Buhangin, Malita, Davao Occidental, with participation from BS Agriculture students, Faculty, and Staff.

RECOMMENDATION

This Extension Project of the Department of Agriculture Region XI, DARRDEN, in collaboration with SPAMAST, the Itikan sa Pamantasan Project (IPP), is recommended to continue its implementation with the following considerations:

SPAMAST – IATES – IPP will be the Multiplier Farm for Itik – Pinas in the Province of Davao Occidental.

Continue to conduct more trainings/seminars in Proper Management Practices of Itik-Pinas & Processing to all interested and potential beneficiaries. SPAMAST will produce other types of Itik-Pinas, not only Itik-Pinas (Khaki), but also includes (Itim) & (Kayumangi).

LITERATURE CITED

- Chang, H. S. C., & Dagaas, C. T. (2004). The Philippine duck industry: issues and research needs [working papers 12904] University of New England School of Economics.
- Coligado, E. C. (1986). Duck production in the Philippines. In: Proc.: Duck Science and World Practice. Farrell DJ, Stapleton P ed. University of New England.
- De Vergara, T. I., Alejandria, M. C., & Lustañas, B. (2020). Iloilo's Balut Industry (Philippines)-An exploration of the environment, social organizations, and consumer demands. *Asian Journal of Agriculture*, 4(2).
- Lambio, A. L. (2004). Half a century of progress in the breeding and management of ducks in the Philippines. *Anim Husb Agr J* 40(5&6): 14–31.
- Lambio, A. L. (2009). The Philippine duck industry: issues, research needs, and policy directions. Paper presented at the Philippine Society of Animal Science's Lecture Series, University of the Philippines, Los Baños, College, Laguna, Philippines

Parungao, A. R. (2017). Itik Pinas to boost the balut industry through increased duck egg production. Retrieved from <http://www.pcaarrd.dost.gov.ph/home/portal/index.php/quick-information-dispatch/2751-itik-pin-as-to-boost-the-balut-industry-through-increased-duck-egg-production?platform=hootsuite> on 18 Nov 2017.

Santiago, R. C., Villareal, K. D., San Agustin, M. M., Balotro, R. B., Rey, C. R., Esguerra, J. P. M., ... Y Magpantay, V. A. (2022). Growth, Egg Production, and Phenotypic Characteristics of the Commercial Hybrid Egg-type Philippine Mallard Duck (IP Kayumanggi) under Intensive Management System. *Philippine Journal of Science*, 151(3), 1287–1296.