

Synchronized natural incubation by free-range native chickens

NATIVE chickens are still very common in the backyards of most rural people in the Philippines (Fig. 1). The native chicken has evolved in a way that allows it to survive and reproduce in a marginal environment and with minimal management. More important, the meat of the native chicken has a unique flavor and texture which consumers prefer, and pay a premium price for. To date, the native chicken remains an important source of high-quality protein food and additional income for many rural dwellers. Furthermore, it performs other socio-economic and cultural roles i.e. as a form of savings and insurance, as a buffer against periodic shortages, and as a way of diversifying farm resources and allowing low-income farmers to meet their social and cultural obligations.

Concern over food safety and health issues has resulted in a shift in consumer preferences towards meat products with good flavor, from chickens raised in a more humane environment, with minimal antibiotics or chemical-based feed additives. These new preferences have opened opportunities for financially challenged rural farmers to engage in native chicken production.

However, wide variation in the performance of native chickens and the quality of their products is a constraint to its utilization on a larger scale.

Several technologies have been tested and shown to improve the productivity of native chickens. However, most of these require financial and technical inputs that are far beyond the capacity of poor farmers. Nonetheless, some technologies that have been developed by small-scale farmers themselves have been shown to improve productivity and product quality of native chickens, and at the same time allow farmers to synchronize production so as to meet market demand.

Explanation of the technology

Synchronized natural incubation is basically a management practice that controls the timing of the natural incubation by five or more broody hens. This technique is practiced, firstly, to increase the egg production of free-range native chicken hens, and secondly, to ensure that the desired number of eggs hatch. Earlier studies have reported that the daily



Fig. 1. Free-range native chickens

Food and Fertilizer Technology Center (FFTC)
14 Wenchow St., Taipei, Taiwan ROC
Tel.: (886 2) 2362 6239 Fax: (886 2) 2362 0478
E-mail: fftc@agnet.org Website: www.fftc.agnet.org
*FFTC: An international information center for
small-scale farmers in Asia*

Cooperating agency for this topic:

Philippine Council for Agriculture, Forestry and Natural
Resources Research and Development, Los Banos, Laguna,
Philippines 4030
Fax: (63 49) 536 0016
E-mail: pcarrd@dost.gov.ph

collection of eggs from nests increased the egg production of native hens by 30 - 50%.

Synchronized natural incubation is accomplished by collecting the eggs each day from the nests. Two dummy eggs (commonly plastic toy eggs) are left in each nest to encourage the hens to continue laying their eggs in a particular nest. The collected eggs are stored in a clean, cool, draft-free and well-ventilated room until there are a sufficient number. However, you should not leave the eggs for more than a week, as the eggs remain viable at room temperature for only seven days. When five or more hens exhibit broody behavior and start setting in their respective nests, it is time to remove all the dummy eggs and the eggs that were collected earlier. Around 12 - 15 eggs should be placed in each nest depending on the size and capacity of the hen to naturally incubate eggs. All the eggs should be returned at the same time. They can be expected to hatch 21 days after the start of natural incubation.

This technique allows rural farmers with only a few hens to hatch 50 or more chicks at one time. It enables them to make the most efficient use of heaters for artificial brooders and other facilities, as well as, labor, vaccines and other inputs. In this way, they improve brooding and overall production efficiency.

Moreover, the simultaneous hatching of 50 or more native chicks enables farmers to produce for slaughter native chickens that are generally uniform in size and age, in numbers which are commonly demanded by institutional consumers of native chickens.

Adaptability of the technology

The synchronized natural incubation technique for native chickens does not require any sophisticated equipment, or even electricity. Thus, it can be used in all parts of the Philippines where free-range native chickens are raised. Progressive native chicken raisers in at least two provinces of the Philippines are now practicing this technique.

Effectiveness

Small-scale farmers in the Philippines are adopting this technology because it is simple to apply and does not require any additional materials or financial inputs. All the technology requires is the small amount of time and labor needed to collect the eggs from the nests and store them until they are needed for incubation.



Fig. 2. Feeding native chickens