Role of backyard poultry for enhancing socio-economic status and health of marginal/landless farmers

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Abstract
Backyard poultry has been practiced long back in the country for obtaining high value protein to poor farmers and removal of hungry, mal-nutrition and poverty among the poor farmers/villagers. District Barabanki PRA survey revealed the meagre low economics and malnutrition of the existing farmers. A on farm trials on backyard poultry at five locations in different villages conducted by KVK scientists has got promising result with 182 large size dark brownish colour eggs weighing about 52.5 gms/bird per year of poultry breed Rhode Island Red as compared with native breed or non-descript fowl. The bird picks up the fallen grains, kitchen waste along with dung pits/water channel insect and their larvae, earthworms. 55 Gms. poultry feed (rice/wheat grains), few amount of chopped onion, berseem and fresh drinking water were provided in the shelter houses made of locally available shade materials.

Keywords: Backyard poultry, gainful employment mal nutrition existing farmers, native breed

Introduction
Backyard Poultry is a traditional system of rearing poultry with an average flock size of 5-15 native breed or non-descript fowl by landless farm families to meet their dietary needs or small cash needs. The backyard poultry contributes total poultry population of 21% in national egg production and 4.8% meat production. Rural farm families in our country consume rice or wheat as staple food, which is rich in energy and low in protein. Due to protein deficiency, rural sectors of the people particularly pregnant women, nursing mothers and growing children are becoming vulnerable to many common diseases. The backyard in rural/tribal areas are rich with natural food base viz fallen grains, insects, earthworms, kitchen waste, green grasses etc. These waste food chain by converting them into nutritionally balanced and delicious egg, chicken meat adopting the rural poultry farming can also alleviate the protein hunger. Poultry farming is possible in widely different agro-climatic environment as the fowl possesses marked physiological adoptability. Requirement of small space, low capital investment, quick return from outlay and well distributed turn-over throughout the year make poultry farming remunerative in both rural and urban areas. The rearing of poultry provides an excellent opportunity for gainful employment to idle or unemployed members of rural communities (Mench, 2011 and Shukla, 2014) [3, 5].

Material & Methods
The on farm trial was performed during 2012-13, 2013-14 and 2014-15 covering different villages of Haidergarh block of Barabanki district. For the purpose of the study of two hundred fifty Rhode Island Red (RIR) chicks of about one week old having almost similar body weight were distributed in five farmers out of these three marginal farmers and two landless farmer. Farmers were rearing non-descript breed of poultry in backyard poultry system whose capacity is about 60-80 eggs per year. The production of RIR breed is about 180-200 eggs per year. Fowls picks up fallen grains, earthworms, kitchen waste, insects and their larvae on the farm yard manure (FYM) pits, roads, waste land etc. The farmers gave few amount of chopped onion to chicks that protect them environmental stress and common poultry diseases. They were fed mixed broken rice and wheat/maize mash @ 50g/dl bird in group. Drinking water were provided to all birds in poultry shed. Daily egg production was recorded by the farmers.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Egg production/year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1: Farmers Practice (Non-descript breed)</td>
<td>68</td>
<td>70</td>
<td>66</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>T2: Rhode Island Red</td>
<td>179</td>
<td>183</td>
<td>184</td>
<td>182</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Egg production/year /bird
Table 2: Economic of back yard poultry farming.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Av. Cost</th>
<th>Av. Income</th>
<th>Net Income</th>
<th>B:C</th>
</tr>
</thead>
<tbody>
<tr>
<td>T₁: Farmers Practice (Non-descript breed)</td>
<td>360</td>
<td>544</td>
<td>184</td>
<td>1:1.51</td>
</tr>
<tr>
<td>T₂: Rhode Island Red</td>
<td>360</td>
<td>1456</td>
<td>1096</td>
<td>1:4.04</td>
</tr>
</tbody>
</table>

Result & Discussion

At the farmers field it is found that the average egg production of non-descript breed was 68 and 182 eggs per year in Rhode island Red breed (Table-1). The result is based on three years 2013, 2014, and 2015 trial on the farmers field. The marginal farmers were with low income, keeping village small shop, grow seasonal vegetable, rice and wheat on their small piece of land. Net income was found higher in T₂ group has compared to T₁ group (Table -2). This findings was agreement with Bhattacharya et al., 2005 [1], Conroy et al., 2005 [2] and Pathak et al., 2013 [4].

Conclusion

It may be concluded that Rhode Island Red breed of poultry is successful and useful for backyard poultry system. Farmers were getting more egg production from RIR birds as compared to nondescript fowls. Any poultry diseases were not seen in above breed. Backyard poultry gives nutritional security by variability of egg, meat and strengthen the economy. It is very simple in operation with minimum capital needs and saves money in terms of eggs, meat, garden fertilizers. People have more preferences of this kind of eggs and meat. In this way it is found that this technology in village level farmers is feasible, adoptable, economic and divisible among the other farmers of the nearby area.

References