



**SIGNIFICANT INCREASE IN LIVE BODY WEIGHT GAIN AMONG DESI BACKYARD POULTRY THROUGH NATURAL FEEDING PRACTICES OF ADIVASI COMMUNITIES OF AP- A PILOT STUDY**

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**ABSTRACT:**

As per the 20th livestock breed census, a total of 214.9 million of Indigenous birds have been recorded in India. Andhra Pradesh state has been placed in third position in Indigenous birds with the population of 20.4million. West Bengal and Assam states having Indigenous birds 35million and 31.9millions respectively. There are a total of 18 registered poultry breeds like Ankaleswar, Aseel, Bursa,Chittagon, Danki,Daothigir,Gagus, Haringata black, Hasli, Kadaknath,Kalahasti, Kashmir favorolla,Kaunayen, Mewari, Mini, Nicobari, Punjab brown and Telichery found under registered birds and remaining called as Other Desi poultry. Desi poultry rearing is a quite common practice under the free-range system. In Andhra Pradesh particularly in the tribal area 60% of families own backyard indigenous birds (baseline report 2023). In General the marketable body weight of Desi birds takes much higher time due to lack of sufficient nutritious supplementary feed and management practices particularly chicks and growers. This paper reveals that with the systematic feeding practices, there is high potentiality to increase desi poultry live body weight under natural feeding conditions. Feeding trial results shown a body weight of a desi bird weight gained from 165g to 1kg in a period of 60 days than the normal growth of 280g to 350g.

**Keywords:** natural feeding practices, body weight gain, livestock

## **INTRODUCTION:**

Since 2017 till date, The Government of Andrapradesh has been promoting Desi Poultry in the tribal area to build nutritional security and to increase additional household level income through poultry rearing. The collaborative program lead by Department of Animal Husbandary along with field implementation partner Civil Society Organizations (CSOs) covered a total of thousand tribal women in the program for the last 7years.

There is high demand for desipoultry meat even in local market. Tribal women sales a live bird (live kilogram of body weight) at Rs.400 to 500 however a bird until to gain 1kg of body weight it takes 4 months period. So this is a major challenge for a tribal women to make it desi poultry rearing as economically viable.

Chinthada and Kanuguda villages of Pedarama Gram panchayat of Seethempeta Mandal, Manyam Districts are formally selected for conducting the feeding trials. The reasons for selection of these villages that, the desi poultry enterprise model is exist and being managed by the tribal women. Availability of large flocks are also so considered for the selection.

## **MATERIALS AND METHODS:**

Consultation meetings were oragnized with the desi poultry farm entrepreneurs, Ms.

Savara Marthamma, Chinthada village and Susoni Savara Kanuguda village of Seethampeta Mandal were sown interest to conduct feeding trials in their farms. The concept of the feeding trials were shared with the farm owners and made an agreement with them that harmful chemicals should not be used and birds which were on experiment should not be sold until completion of feeding trial period. In the selected two farms observed the previous management practices like birds feeding systems, material used for feeding, shed management, health care and forage management etc.

Live bodyweight of the birds was recorded as part of the baseline data before commencement of the feeding trials. For the selected birds, tied with colored ribbons bands and ensured for the entire 60 days of trial period. It is become easier for farmers to separate birds while feeding and weighing birds.

The feed mix contains maize 40%, broken rice 15%, ground nut oil cake 25%, rice bran 15%, common salt 3% and Mineral Mixture2%. Purchased these materials and blended together. Feed mix was supplied to the women part of the pilot experiment as free of cost and asked them to feed the experimental group birds separately particularly in the evening time. Calculated feed for chicks 10g to

20g/day in second month similarly and growers started with 20g/per day increased up to 30g/ day and for adult birds 30g/per day to 45g per day.

In the Kanuguda village, Ms.Susoni Savara has selected 24 birds in her farm for the feeding trials, birds are categorized as chicks, growers and adult birds. Made into three groups that 20 birds as experimental group and 4 birds as control group. 20 birds further divided into two groups like all chicks as one group (14 birds) and growers as another group. Growers group further divided into two groups both experimental (6 birds) and control group (4birds).

Group-A: chicks' group (experimental) clubbed 11 birds and its average body weight was 166g/bird.

Group-B: grower's group (experimental) 6 birds were there their average body weight was 583g.

Group-C: grower's group (control group) 4 birds live body weight was 261g.

In the Chinthada village, farmer has selected 16 adult birds for the feeding experiment. Divided into two groups both experimental and control group. Named Experimental group as group D and accomodated 11 birds in that group and in the group, E clubbed 5 birds.

Group-D: adult birds' group (experimental) 11 birds with the average body weight of 1100g

Group-E: adult bird's group (control) 5 birds' average weight was 1130g.

A, B & D groups were treated as experimental group and C & E were considered as control groups. Dewormed all the birds in experimental groups (except control group) with the herbal decoction of *Andrographis Paniculata* (Burm. f.) Wall. ex Nees. locally known as Nelavemu in Telugu. Lasota RD vaccination has been done across all age birds after the 5th day of vaccination.

Preparation of the medicine: Collected whole plant of Nelavemu and chopped into small pieces and boiled in half liter of water for 10 minutes and cooled and filtered it. Administered 5 drops orally for each bird as single dose to eradicate intestinal worm infestation before conducting feeding trials including control group birds.

In the Kanuguda village feeding was started on 26<sup>th</sup> March 2019 ended up on 27<sup>th</sup> May2019 whereas in the Chinthada village feeding was started on 12 April and ended up by 12th June 2019.

Digital weighing scale was used in both the places and blended feed supplied was supplied to the farm owners and also bamboo bigger baskets were provided to the owners that while feeding the experimental birds to cover them and keep away from other birds. We have hired local youth who have trained on

poultry care for data collection. Birds weight measurements were done once in 15 days for all category of birds. Additional supplementary feed given to the experimental group birds separately in the evening around 4-5pm, once birds came back from forage ground by covering with bamboo baskets.

**RESULTS AND DISCUSSION:**

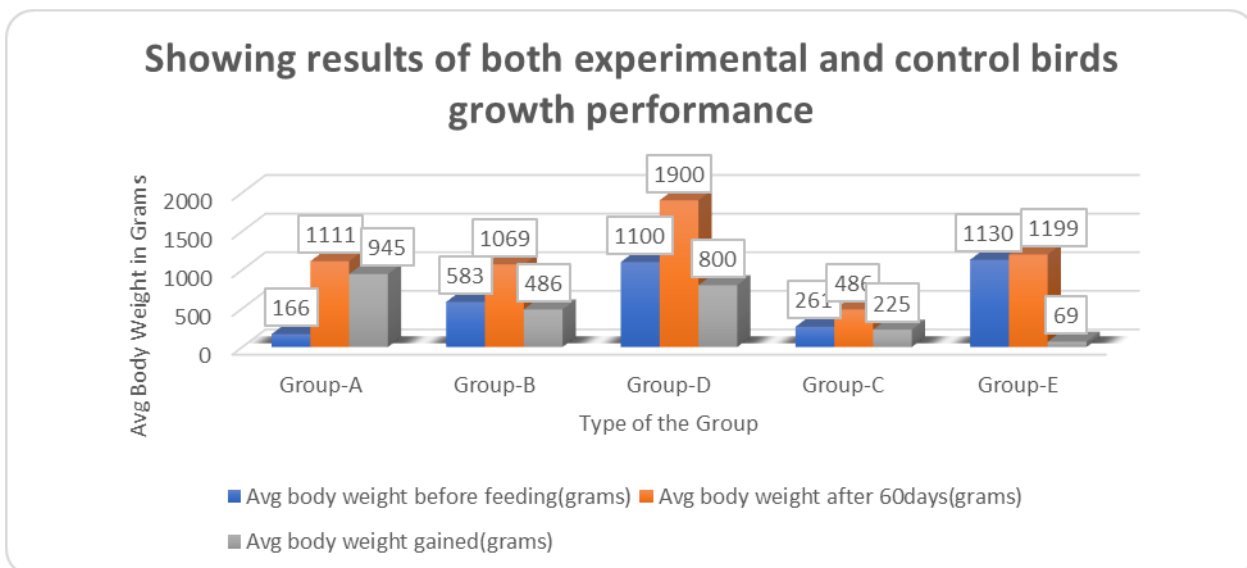
In the Chicks group A birds (14 birds) average body weight was increased from 166g to 1111g it means additional weight gain was recorded as 945g. In the Growers group B (6 birds) increased their average body weight from 583g to 1069g and the actual increase

weight was 486g. In the Adult birds group D (11 birds) body weight was increased from 1100g to 1900g the actual gain was 800g.

Whereas in the growers control group C (4 birds) live body weight was increased from 261g to 486g and the actual weight gain was observed was 226.5g. In the adult birds group E (5 birds) control group the average body weight was increased from 1130g to 1199g it is just about 69g.

See the graph below:

**Graph 1: Showing the Results of Experimental and control birds growth performance**



**CONCLUSION:**

Across all age birds are well responding to the supplementary feed. The results revealed that younger birds below 300g bodyweight are showing rigorous growth in their Live Body Weight in 60 days period. Desi poultry farmers

should adopt the practice of providing supplementary feed ( local made formula feed) to birds while ensuring regular deworming practices. High infestation of intestinal worm load in the control birds group birds might be a reason for slow growth and it

is the limitation of this paper to conclude the impact of additional supplementary feed. This research paper will lead to further exploration of similar experiments.

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