

NARMADANIDHI
Dual purpose coloured Bird
Suitable for backyard, rural and tribal areas Poultry farming

Poultry are inseparable from mankind whether in urban slums or in rural scenario, not to speak of tribal areas and backyard harsh environments. In the rural scenario poultry do not need any land, birds are easy to manage with these hardy birds managing themselves most of the time in a set pattern, returning faithfully home for the night and regularly laying eggs at home.

Village chickens play an integral role in small holder farming systems. The small holder chicken sector is traditionally based on extensive free range systems where the birds find most of their feed through scavenging. Small farming families land less labourers and people with income below the poverty line rear chickens with low inputs and harvests the benefits like egg and meat via scavenged feed resources. Chicken meat and egg provide a readily available, high quality source of protein, vitamins and micronutrients which are particularly essential for children, pregnant women and nursery mothers, thus helps to meet out the nutritional needs of the rural population. Village chickens are also active in pest control, provide manure feathers etc are required for special festivals and are essential for many traditional ceremonies. Household sell chicken to generate cash. They are used to meet social, economic and cultural need of household.

Traditional poultry keeping in the backyard is still a potential source of live stock component among the tribal's and rural poor. It will continue, indefinitely as it is an important source of income generation to meet their urgent needs. Native chicken in rural and tribal areas constitute about 40% of chicken population. However their average egg laying capacity is about 30-60 eggs annually and growth is slow (100 to 180 days to attain 1 kg live body weight). But desi eggs and meat fetch a much higher price than that from commercial poultry. The national Institute of Nutrition has recommend per capita consumption of 180 eggs and 11 kg of meat for our country. At present the per capita availability of meat is 2.8kg and egg is 57.

M.P is having 10 ten districts with between 25.50% tribal population and five districts with more than 50% tribal population. (Jhabua, Dhar, Darwani, Dindori (64008) Mandla (57.23%)

As for as Madhya Pradesh is concerned the proportion of rural Poultry in nearly about 62% of the total Poultry Population of the state Still majority of poultry birds are maintained under backyard/free range system in M.P. by the tribal's and rural Poultry farmers.

All India coordinated Research Project on Poultry Breeding Deptt. of Poultry Science, College of Veterinary Science and Animal Husbandry, Nanaji Deshmukh

Pashu Chikitsa Vigyan Vishwa-Vidyalaya, Jabalpur has developed a dual purpose colour chicken Variety (replica of deshifowl) i.e. Narmada Nidhi which resemble to desi fowl/native chicken in appearance but having higher production potential under backyard, free range scavenging, semi intensive management system provides both meat (better growth at early age) and eggs (4 times more than desifowl), thrive well and adapted to harsh climatic condition and well acceptable in remote areas.

Salient Features of 'Narmadanidhi'

- It has very attractive multi colour plumage pattern (brown, black, grey, mixed) and personality.
- Due to long shank, upright leaner appearance, strong body conformation move faster in free range for scavenging and also protect themselves from predators.
- It easily adapts the rural environments, so suitable in backyard and small scale Poultry system.
- Survive better in sub-optimal nutrition and management.
- Produce brown shell egg as deshi, not in bigger size (50.2g) tasty as these birds are dependent on natural feed from the surrounding.
- Faster growth rate male attained 1 kg body weight in 9-10 weeks of age. Adult 20 weeks b. wt. ranged from 1550 to 2210g in males and 1310 to 1730g in females.
- The female matured on an average 161 days of age (intensive) and produces 181 eggs in backyard 4 times higher than the local native (45 eggs) and 195 under semi intensive system of management.
- As birds having 25% inheritance of native i.e. local breed Kadaknath and 75% of improved broiler germplasm (Jabalpur col.). Well know for high suitability and adaptability under rural management system.
- Dual purpose col. bird 'Narmada Nidhi' is thus and outcome of specific breeding approaches aiming to utilize maximum heterosis, higher potential in the progeny.

Rearing and Management of Narmadanidhi

Breeding of chicks: - A newly hatched chicks has not developed the thermoregulatory mechanism fully and takes about 2 weeks to develop this mechanism and homeostasis. Therefore they cannot maintain the body temperature properly for the first weeks of life and may be subjected to the chilling, if not properly taken care of. Narmada Nidhi chicks need brooding during the initial 4 weeks of age to maintain the required body temperature. Artificial heat can be provided by bulbs, infra red bulbs, heat coil, brooders made of wooden / metal / locally available material. The brooding arrangement can be made either in floor or in cage as per available facilities. After cleaning, washing and disinfecting the brooder house, equipments, utensils close it until arrival of chicks. Spread the litter material 2-3 inches uniformly and spread news paper over litter for 3-4 days to prevent baby chicks for eating the litter. Arrange feeder, waterers, alternatively in cart wheel

spokes like fashion and use chick guard to restrict movement of chicks so they remains near heat source. Provide three 60-70 cm linear chick feeders or 2-3 plastic tube feeders and two chick waterer (fountains) for each 100 baby chicks. After 4-6 weeks of age they can be let free for scavenging in the backyard surrounding the house. During the initial acclimatization, care needs to be taken to habituate them to reach the nest in the evening for night shelter which must have good ventilation, required light and protection from predators.

Feeding:- Balanced feed fortified with required minerals, vitamins, antimicrobial and anticoccidial should be fed ad- lib during first 4 weeks of age for optimum growth performance. The diet can be formulated using the locally available feed ingredients like broken rice, jowar, maize, ragi, bajra, korra etc as energy source and soyabean, sunflower, ground nut cake as protein source. Chick ration which is available commercially can also be fed during initial 4 weeks of age. It is important to ensure easy access of feed to all the birds and offer feed daly. These chicks need about 17% protein and 2600 ME kcal/ kg of feed in diet.

Health care: _During initial brooding period (4 weeks age) the chicks of Narmadanidhi must be vaccinated against Marek`s, Ranikhet and IBD diseases.

Table :- Vaccination Schedule for Narmada Nidhi

Age (days)	Name of vaccine	strain	Dosage	Route
Day old	Marek`s Disease	HVT	0.2 ml	S/c injection
7-10	Ranikhet	F1/B1	one drop	I/N or I/O
14	InfectiousBursal disease	IBD Living mild	one drop	I/N or I/O
28	Ranikhet	Lasota	-----	Drinking water.

Free Range Management :-

After 4 to 6 weeks age chicks can be let free during day time for scavenging in the backyard surroundings of the home to rear the chicks(10 and above) depending on the availability of natural feed in the area . During night they return in the house and are kept in night shelter.

As this is the dual purpose bird, the males can be sold at any time after attaining the suitable / minimum or market body weight. At 8 weeks of age males on an average generally attain 750g body weight in free range 860g in semi intensive and 1170g in intensive system of management. Whereas adult male attained 2300 to 2500g b.wt. under rural management condition depending on the availability of

natural feed. The female of Narmada Nidhi produces 181 brown eggs of 50g weight annually under free range conditions.

Feeding:- The general practices adopted by most of the tribes for rearing of Narmada Nidhi birds without provision of supplementary feeding however some farmers provide kitchen waste, grains or feedwaste, and what so ever available waste material of feed and vegetable sources. Narmada Nidhi under free range easily pick up its food from the backyard once it learns to scavenge in the feed. Additional feed supplementation requirement depends on the availability of scavenge area vegetation, waste grain insects, grass seed etc. Birds generally fulfill their protein requirement through scavenging. It is also very fond of leafy vegetables like methi, palak, chulai, patharchata, leguminous leaf etc. Therefore grain supplementation (wheat, jowar, maize, brown rice, korra) always beneficial for better production performance. Resourceful farmers, of villages maintaining these birds only for meat purpose under intensive and semi-intensive system can provide commercial available broiler feed for better early growth. For laying of eggs single / community nest made up of wooden / earthen / galvanized iron sheet with provision of hole should be used. One single nest is sufficient for 3-4 hens. For egg production to avoid breakage of egg supplementation of calcium sources like shell grit, stone grit, limestone, DCP powder. @ 3-4 g/bird/day during laying phase is suggested.

Housing:- Housing is required for night shelter and protection from rains, predators. About 1.5 to 2 Sq. ft. floor space is required per bird. Most of the tribal farmers maintaining these birds are resource poor farmer, having small holding. They provide basic housing as small Dadba to protect the birds from change of weather (heat, rain, cold, predators during night) such facility is created by using bamboo, waste wood or other available materials. Dadba must have the provision of small entry gate, bamboo ventilation, wire mesh ventilation and roof covered with bamboo, local tiles, dry leaves or asbestos sheet may be used. Periodic cleaning and spraying is needed from health point of view. Locally available materials like rice husks, ground nut hulls, wood shaving etc can be used as bedding material and always keep it dry.

Healthcare:- A proper vaccination schedule as indicated above in table 1. should be followed to protect the Narmada Nidhi birds against infectious diseases. The most important diseases that affect Narmada Nidhi in free range is Ranikhet disease. So give vaccination against Ranikhet disease at 6 month interval by adopting cold chain. There is a possibility of parasitic infestation in birds so deworming at 2-3 month interval is required under free range condition. Periodically cleaning of Dadba, shed is necessary to protect from coccidiosis. Preventive dose of coccidiostat may be given between 4-6 weeks' age and curative dose during coccidiosis disease.

Performance of Narnadanidhi birds

(Dual purpose Colour Bird)

<u>Economic Traits.</u>		<u>Performance</u>
• Day old chick weight (g)		- 38
• Body weight at 8wks of age (g)	Free range	- 605-765
	Intensive	- 860- 1172
• Body weight at 20 wks age(g)	Free range (M)	- 1550
	(F)	- 1314
	Intensive (M)	- 2247
	(F)	- 171
• Body weight 40 wks age (g)	Free range (M)	- 2310
	(F)	- 1650
	Intensive (M)	- 2650
	(F)	- 1860
• Age at sexual maturity	Intensive	161
• Av.egg weight		- 50.2g
• Annual egg production	Free range	- 181
	Intensive	- 223

Supply

Fertile eggs, day old chick, one month old chicks are available at All India coordinated Research project on Poultry Breeding, Deptt. Poultry Science, LSF Adhartal, College of Veterinary Sci. & A.H. Jabalpur on payment basis. For effective communication it is requested to give the contact telephone/mobile number of customer. After receiving the advance (Partial/ full), department will intimate the likely date of the supply of chicks, the customer are required to arrange for lifting the chicks from the hatchery of the Project/Department.

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