



LIVESTOCK AND FISHERIES MANAGEMENT

Vanaraja Introduced in Back Yards



There was a long felt need among the farmers, farm women and rural youth to start the production of poultry birds in Kashmir valley of Jammu and Kashmir. Backyard poultry is a part of livelihood among the farm women. However, low egg production and lesser weight gain is the major problem in the backyard poultry rearing.

On the basis of surveys, field visits and feedback from farmers and farm women pertaining to backyard poultry and incubation of eggs in local conditions, KVK Budgam initiated the activities to access the better alternative for profitable poultry farming in rural and semi urban areas of district Budgam. Various villages of the district were selected for incubation of poultry eggs. KVK selected two breeds of poultry namely, Vanaraja for dual purpose and local poultry for meat purpose. Two farm families from each selected village were arranged 10 Vanaraja birds for backyard poultry to upgrade the local flock of poultry.

Results of the breed was very encouraging. Vanaraja birds performed better than their local counterpart. Hatchability and survivability in Vanaraja birds were 80 % and 90 %, respectively while in local poultry, they were 60 and 85 %, respectively. Production per unit was also higher in Vanaraja birds, where the



Salient Features

- Introduced Vanaraja birds in Various villages of Budgam district and found eggs were successfully incubated under their local fowl
- Observed more hatchability and survivability in Vanaraja birds as compared to local poultry
- Vanaraja birds gave on an average 3.2 kg body weight/bird as well produced 125-135 eggs/year
- Vanaraja birds found suitable alternative to local poultry for rearing under backyard poultry system

average production per unit was 31.36 Kg chicken and 975 number of eggs in comparison to deshi bird (10.2 Kg chicken and 240 eggs). This motivated the farm women to purchase the eggs and chicken of Vanaraja birds. Eggs successfully incubated under their local fowl. Thus, Vanaraja was found suitable alternative to local poultry for rearing under backyard poultry system.

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Tribes Sustained through Broiler Birds



Agriculture and allied activities are the mainstay of native people of Papum-Pare region and livestock based mixed farming is predominant farming system. Modern agricultural technologies are out of reach for resource poor farmers in the district. Peri-urban areas showed sporadic growth of small scale commercial broiler units but lack of technical know-how and non-availability of quality chicks and high input cost limits their expansion and closure of some of the units. Growing demand is met by importing broiler birds from outside the state.

Since its inception in 2008, KVK Papum-Pare is being carried out the capacity building of farmers in a large way. It has been revealed from post training feedback that the farmers were perceiving technologies and is willing to take up newer ventures for their economic sustenance. But the financial bottlenecks, ready input availability and lack of service supports limits the adoption of technologies. To address these critical points, the Kendra planned and implemented a sustainable model by establishing functional linkage with financial institutes, service providers and farmers groups. A series of activities were organized which includes awareness programme among the farmers for formation of farmers clubs, capacity building programmes and linkage with banks for credit and line departments for service delivery supports. In this model, Kendra had promoted 9 farmers clubs for different agri-allied sector farm activities under the NABARD sponsorship. Out of these farmers clubs, 4 clubs were established broiler poultry farming units on commercial way with flock size of 300-500 birds where 44 (forty four) farmers participated willingly under the technical guidance of KVK. Cost of production was Rs 70.33/kg. Average income per 300 birds/batch was around Rs 17 800 and each farmer got a net profit of Rs 1618/



Salient Features

- Conducted feed-back studies
- Farmers clubs were formulated
- Developed institutional convergence model and implemented in collaboration with different stakeholders
- Established functional linkages between scientists, extension personnel, bankers and farmers
- Established poultry units by the farmers willingly
- Poultry farms gave substantial income to the farmers as well as created employment among farm families

batch. Besides, units served as source of organic manure for crop production which is carried out in the vicinity of farm.

Bankers are being pro-active for providing Kisan Credit Cards (KCC) to the farmers club members for taking up commercial ventures under farm sectors in Papum Pare district of Arunachal Pradesh. Institutional convergence developed is a step forward for the upliftment of the tribal socio-economic status through farmers club approach in the district. Model has built the confidence between faculty of KVK, financial institutions (NABARD & APRB) and service delivery support (line department especially AH & Veterinary) that led many farmers coming together in the form of clubs.

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Layer Farming Potential Enterprise in Assam



There are approximately 4.89 lakh local chicken and 2.37 lakh duck in Jorhat district of Assam with average productivity of 45 eggs per bird producing 51 million eggs per annum. Though a total of 12275 number of improved backyard chicken available in the district, there is a gap of more than 97% between the district demand and local egg production.

KVK Jorhat has introduced commercial layer farming through series of activities. Shri Ranjit Dutta of Teok town in block Selenghat established a commercial layer farming unit under the guidance of KVK. He used the breed VB 380 with deep litter system and Crieston Brown with cage system of housing in 2007. Shri Ranjit Dutta increased birds to 400 in the third batch and earned a net profit of Rs 1 lakh with maximum production up to 90% laying. In the year 2010, he increased his stock up to 600 birds.

Delighted by the success of commercial layer farming using cage system and high market demand of locally produced brown shell eggs in the local markets, many people of Jorhat district are coming from distance places to his farm to buy the beautiful and standard eggs.



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- Vanaraja birds found suitable alternative to local poultry for rearing under backyard poultry system

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Backyard Poultry Farming Leads to Poverty Alleviation



Unemployment is the most burning problem of the newly formed state of Uttarakhand. In Rudraprayag district, more than 2/3 population resides in the villages and their main occupation is agriculture and animal husbandry. Small land holdings, scattered land, terrace farming, non-availability of technical know-how, rainfed farming situation, wild animals attack, non-availability of proper market facilities for the end product and typical geographical conditions, etc. makes the farming uneconomical. Seasonal business of serving to the pilgrims of lord Kedarnath and Badrinath is unable to fulfill the annual requirements of people. Many people especially rural youths are unemployed and bound to migrate for employment to metropolitan cities of the country.

During the village meetings it was realized that the youth agreed to start backyard poultry farming for employment. A seven days vocational training course on backyard poultry farming for rural youths was conducted in 2006. During training, practical sessions were conducted on sanitation of the farm and making low cost backyard poultry sheds from locally available resources. Shri Lakhan Singh Rana, a resident of village Bansu, after receiving training from KVK in first batch consulted KVK to start backyard poultry farming in January 2007. He made all necessary modifications in the room under the guidance of KVK and started poultry farming. In the first lot, 100 broiler chicks were reared out of this 95 chicks were sold undressed. A sum of Rs 13500 was earned as gross income from the first lot.



Salient Features

- Introduced poultry farming by KVK through vocation training of days duration
- In the first lot, with 100 broiler chicks farmer earned gross income of Rs 13500
- By seeing the performance, bank extended Rs 60000 loan for expansion of poultry unit run by Shri Lakhan Singh Rana
- A total of 26 backyard poultry units were started by trained farmers of KVK with a flock size of 100 to 300 birds and earning ranges from Rs 8000 to Rs 24000 per each unit

Encouraging gain from the first lot inspired Shri Lakhan Singh Rana for further expanded his poultry farm. He received Rs 60000 from bank for infrastructure and other expenditure related to backyard poultry farming and established a commercial poultry farm. From seeing the success of Shri Lakhan Singh Rana, so far 26 trained farmers started backyard poultry farming at their home with a flock size of 100 to 300 birds and happily earning an income ranging from Rs 8000 to Rs 24000 per flock. Technology exhibited potential for income and employment generation in the rural area.

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Vaccination Against Newcastle Disease Saved Back Yard Poultry



There are approximately 3.55 lakh poultry birds in Phek district and most of them are being reared as backyard poultry. Flock size of rural poultry varies from 4 to 20 and about 75% of total bird population in Phek consists of nondescript breeds. Majority of farmers in Phek practise mixed farming by raising small stocks. Among small stocks, poultry is most preferred in rural households of Phek because chicken are relatively cheaper to buy and requires less attention and care. Low production performance of local germplasm coupled with traditional rearing practices and high incidence of endemic diseases makes poultry rearing most vulnerable. Newcastle disease proved to be most deleterious disease of poultry and rural poultry suffers a lot due to it. In fact, average poultry bird population per village is 1600. Egg production from 480 birds (30% in lay) @ 60 eggs/hen/year is 28800 eggs. Loss in egg production due to Newcastle disease assuming 75.5% mortality is 21720 eggs which costs Rs 86880 (@ Rs 4/egg). Loss due to death of 362 layers @ Rs 80/bird is Rs 28960. Loss due to Newcastle disease outbreaks in remaining 1120 birds assuming 75.5% mortality @ Rs 50 per bird is Rs 42300. Total loss due to outbreak is Rs 158140.

KVK Phek, demonstrated vaccination against the devastating Newcastle disease by involving the women SHGs and rural youths. Estimated average loss due to Newcastle disease before vaccination was approximately Rs 158140/village/year assuming deaths as 75.5% and the loss reduced to Rs 28086/village/year as average



Salient Features

- Effectively demonstrated vaccination against the devastating Newcastle disease by involving the women SHGs and rural youths
- Average death rate after vaccination came down to 13.4% that saved Rs 130054/village/year
- Trained youths regularly vaccinating farmers flocks in remote villages
- Protection against Newcastle disease has strengthened the economic status of women as rural poultry is primarily managed by them and it is also providing nutritional security to the house holds

death rate after vaccination came down to 13.4% .Thus adoption of vaccination against Newcastle disease has saved Rs 130054/village/year.

Farmers felt that vaccination has reduced the risk of Newcastle disease epidemic. Protection provided to their existing birds through vaccination developed confidence to upscale the production. As it was difficult to arrange the vaccine for 5-10 birds from far away places to the remote villages by individual farmer, trained youths are collecting money from all farmers and regularly vaccinating their flocks.

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No Cost Technology for Quail Brooding



Quail in Andaman and Nicobar Islands is a household name for dual purpose of egg and meat. Recent studies revealed that blood cholesterol could be controlled by regular consumption of quail egg and meat. This has increased the demand of both egg and meat in many fold not only in Islands but also in mainland. This has created a unique opportunity for Islands women to rear more and more number of quail birds for sale of egg and meat both in Islands and mainland. However, brooding of quail egg is a problem for quail rearers as they have to travel a long distance to reach Central Agricultural Research Institute, Port Blair for hatching through incubator. Average hatchability recorded through incubator was 65 % followed by survivability of 50 % during transport of chicks. In addition, it involves an additional cost on bringing eggs to hatching place and back to rearing place. On the other hand, survival rate of naturally hatched chicks (by hen) was more than 73 % and average hatchability by this means was more than 66 %.

Sensing the benefit of quail rearing vis-à-vis solving the problem of brooding, KVK Port Blair developed a unique idea of brooding quail eggs by hen. In this process quail eggs are kept in a basket with one or two poultry eggs for its brooding by hen. Without identifying the quail eggs, the hen starts brooding the eggs along with poultry eggs. As quail eggs are hatched 2-3 days earlier than the poultry



Salient Features

- This is absolutely a no-cost technology
- Housewives can easily earn additional income through this practice
- Hatchability and mortality significantly differ than other methods
- Addition of quail egg and meat in daily diet controls blood cholesterol
- Quail egg and meat have high demand

eggs, care needs to be taken to separate quail chicks immediately after hatching to prevent them from stamping by hen. Separated chicks are then kept in a separate container with an electricity bulb fitted nearby to provide required warmth. This practice of brooding by hen has been immensely popular in the Islands and many women are practicing it at their houses. In this process quail eggs hatched during June 2007 to July 2008 by Islands by women recorded 66 % hatching and nearly 74 % survival rate. This no-cost technology has helped a large number of women to earn an additional income from quail rearing in A & N Islands.

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Piggery as Subsidiary Occupation



Since its inception, KVK Hassan conducted various training programmes and demonstrations in the field of Animal Husbandry in general and piggery farming in particular. Shri Nagendra, one of the ex-trainee of KVK, from Dasarakoppalu established piggery unit with an initial investment of Rs 64800 in 2002 without availing loan from any source.

To begin with KVK supplied eight Yorkshire piglets @ Rs 600 per piglet to Shri Nagendra. Interestingly he used only hotel kitchen waste as source of feed and nutrients supplemented by mineral mixture. Thus, he incurred only Rs 30 per day towards fuel to bring the hotel kitchen waste. Every day he used to bring 250 kg of hotel kitchen waste which is sufficient to feed 15 adult pigs and 30 piglets. Besides, he used to get free medicines and B-complex supplements from the Department of Animal Husbandry on free of cost. So far he sold more than 2250 piglets to farmers of Hassan as well as neighboring districts. Benefit Cost Ratio of the unit is 7.35.

According to Shri Nagendra, he uses the leisure time for working in piggery farm and works only for 2 hours a day which does not incur any extra labour charges. Amusingly he started running an auto riksha and pride owner of 3 auto

Salient Features

- Shri Nagendra sells 25-30 piglets and 15 adult pigs per month
- Started more than 100 piggery units in Hassan and neighbouring districts
- Pig catcher was modified by KVK was released in 2008 by University of Agricultural Sciences, Bangalore.
- Piggery has improved the socio economic condition of Shri Nagendra in a great extent

rikshas at present and earning an additional booming income. He is the inspiration behind many farmers for starting the piggery units who have purchased piglets from him and by now at least more than 100 piggery units have been started. Thus, the tangible impact can be seen in the district.



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Sweet Potato as Feed for Crossbred Pigs



A total of 37688 number pig population is there in Ri-Bhoi district and they feed in three types viz., (i) Scavenging (ii) Feeding of locally available feed resources along with concentrate feed (iii) Feeding with recommended/computed concentrate feed.

Sweet potato in local Khasi dialect is known Phankaro. The Ri-Bhoi district has an area of 157 ha under sweet potato cultivation with a productivity of 36 q/ha. KVK Ri-Bhoi disseminated sweet potato as feed for crossbred pigs and introduced promising varieties of sweet potato namely ST-14, Meghalaya local and Kokrajhar Red through demonstrations for increasing the productivity and production. A total of 25650 numbers of sweet potato vine cuttings of three varieties were arranged to 10 farmers of 6 different villages of the district. Out of three varieties, ST-14 was found to be performing well with an average yield of 36 t/ha followed by Meghalaya local (31 t/ha) and Kokrajhar Red (22 t/ha). Variety ST-14 was adopted by 70-75% in an area of 20 ha in subsequent years.

With supplementation of sweet potato (up to 60%) in the pig ration, farmers saved up to 75% of total feed cost without hampering the production performance of pig. Sweet potato tuber in raw form could be fed to swine up to a maximum

Salient Features

- Introduced promising varieties of sweet potato
- Supplemented sweet potato vine cuttings and tubers in pig ration
- Farmers saved 75 % cost of concentrate pig feed
- Increased body weight of pigs there by gained more income

level of 40% on DM basis and that boiling of tuber could be fed up to 60% along with good quality vegetable protein (soybean meal) and mineral mixture for economical production. A total of 55 pig growers are now practicing sweet potato as feed and reducing 75% of cost on swine feeding. Production performance of crossbred pigs in farmers field who fed on sweet potato tubers showed good result and average body weight recorded at 6 months of age was 32.5 kg against 18 kg body weight gain under local feeding practices.



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Rabbit Farming Provided Dual Benefits



KVK Zunheboto introduced rabbit breed Newzealand White in Sumisetsu village under Akuluto block of the district Zunheboto for the first time in 2008. As farmers were not aware of the rabbit farming and its meat quality, it gave them a boost and came forward for rearing rabbit on large scale. Since its introduction, a total of 90-100 farmers are engaged in rabbit farming in Akuluto block.

In Nagaland where 100% people are non-vegetarian, there is a scarcity of meat. Introduction of rabbit farming has helped to increase the availability of meat from 47 to 55 gm per day and on an average each farmer could sell rabbit amounting Rs 1000-1500 per month. Many SHGs adopted rabbit farming and gaining dual benefits of meat for home consumption as well as earning additional income by selling rabbits.

Smt Helen (09436203994), Member secretary of SHG from Aotsakili village, Smt Lovini (09615379548), Member secretary of SHG from Shichimi village, Smt



Salient Features

- Newzealand white rabbit growth is 10-15g/day
- More number of farmers as well as SHGs came forward for adopting rabbit farming
- Meat availability increased from 47g/day to 55g/ day
- Rabbit farming provided dual benefits of meeting home demand of meat and earning additional income by selling rabbits

Khekhali (09402021128), Member secretary of SHG from Lumami village are some of the SHGs performing rabbit farming very well. Many more SHGs are coming forward to adopt rabbit farming in the district.

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Fish Farming Flourished in Farm Ponds



Farm ponds were established for water conservation and water harvesting under National Horticulture Mission in Washim district. Water was available eight to nine months in these farm ponds which is used for critical irrigation. This untapped potential has been utilized for fish farming by the intervention of KVK Washim.

Shri Sambhaji Wankhede, Shri Santosh Gore, Shri Akosh Deshmukh, Shri Vishram Khandare and Dr Sanap, young entrepreneurs, from different villages of Washim district underwent training on fish farming at KVK followed by exposure visit to Andhra Pradesh.

They started the fish farming scientifically in their existing farm ponds with the guidance provided by KVK in the year 2006-07. KVK has arranged Carp as well as Magur fish seed to the farmers. Now they are getting a net profit of Rs 6950 to 19770 on each farm pond with a Benefit Cost Ratio of 2.02 to 3.44. Additional income gained by these farmers has inspired other farmers to take-up fish farming in their existing feasible 200 farm ponds.

Salient Features

- Farm ponds were basically used for irrigation
- KVK introduced fish culture in existing farm ponds
- Fish farming is flourishing in farm ponds and farmers are gaining additional income
- Now farm ponds are being utilized for dual purpose like irrigation as well as for fish farming



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Farm Women as an Innovative Fish Producer



KVK Jharsuguda introduced fish farming in the existing farm ponds through a series of activities. Smt Dulukumari Naik, a member of Maa Sarala SHG from the village Durlogaon of the block in Jharsuguda district has 1.6 ha of land, out of which 0.4 ha is pond area. She adopted fish farming in her existing farm pond under the guidance of KVK. She is following the recommended scientific practices in multiple carp culture. She has taken the pre-stocking practices like weeding, removal of unwanted cat fishes application of lime @ 300 kg and cow dung @ 2 t as per recommendations. she has not applied any synthetic fertilizer for plankton growth during the culture practices and any medicine also.

However, as per scientific cultural practices, the feed requirement to get marketable size of fish from 0.4 ha of pond area is 500 kg @ Rs15 per kg along with GNOC and rice bran @ 300 kg each which costs Rs15 per Kg. Thus total feed costs Rs16500 which adds to the production cost. Here, Dulkumari by her personal experience reduces this feed cost by applying 400 kg GNOC and waste of country liquor which is a specific kind of liquor made from rice by the tribals of

Salient Features

- Reduce fish feed cost by preparing her own feed
- Providing nutrition to family
- Enhanced family income
- Enhanced rural employment

western Orissa. Cost incurred by applying the GNOC and waste of liquor is Rs 6000 @ Rs 15 per Kg of GNOC there by she reduced the production cost by Rs 10500 with out affecting the marketable size of fish growth. She became member of maa sarala SHG. She was recognized in the district for her innovative idea in the particular field like pisciculture.



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Panchayath Pond as Source of Income



In the year 2005, KVK Champawat started motivating farmers of the area for scientific fish rearing through trainings and demonstrations. Shri Mahesh Singh Adhikari of village Barakot visited a Panchayath pond of his village, which was being used for the cattle and washing vehicles. He approached KVK for demonstrating fish farming technology. Area of pond was 400 m² and pond was situated in middle of village along side road connecting to main market of the block. First time 500 fish fingerlings (2 inch size) of common carp were stocked in the pond in June, 2005. Two months later in August, 700 fingerlings of silver carp and 300 fingerlings of grass carp were also stocked in the pond. Periodically, lime was applied to improve the water quality of the pond by analysing at the interval of every two months and accordingly inputs were used in the pond. Three training programmes were conducted in the village on various practices of fish farming to aware the farmers. Regular field visits of village were made to advice farmers.

After a period of 21 months fishes were harvested in March, 2007. Total of 310 kg fish of 300 to 1200 g size each were harvested. Fishes of less than 300 g (approximately 1-1.5 q) were left in the pond for further growing to marketing size. Total of Rs 4100 were spent on the inputs such as fish seed, fish feed, lime and labour charges and Rs 27900 were earned from the sale of fishes. As a result, village panchayath not only earned net income of Rs 23800 from the pond but villagers also got fresh fishes first time in the area. Now, pond has been given to a villager on lease. In this way, pond has become source of income to lease owner



Salient Features

- Panchayath pond was effectively utilized for fish farming
- A net profit of Rs 27900 earned by the Panchayath from the existing pond in the middle of the village
- Villagers got fresh fish
- Now Panchayath has leased the pond for fish farming
- Inspired many farmers to adopt fish farming in their existing farm ponds

as well as village panchayath and providing fresh fishes to villagers for their consumption. Impact of successful demonstration on fish farming in this panchayath pond is that 15 farmers of the nearby areas have started fish farming in their ponds.

After observing encouraging results more number of farmers are adopting fish farming which is reflected as increase in number of farmers (65 to 180), number of ponds (80 to 215) and fish production (30-35 kg/100m² to 50-55 kg/100m²) within a period of 4 years i.e. from 2005 to 2009. In the district 25 fish farmers have adopted fish-poultry and 12 have adopted fish-duck integrated farming.

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Remunerative Composite Fish Farming



Fish is the staple diet for 95% of the population of Tripura. It is bestowed with vast natural water resources along with climatic conditions for fish farming. However, open aqua resources of the state are seasonal in nature. Fish productivity of village ponds was negligible (1.9 t/ha/year) due to lack of scientific know-how and do-how on composite and integrated fish farming.

KVK West Tripura trained farmers and rural youth on composite fish farming. Shri Sagar Deb, who attended vocational training at KVK, has adopted composite fish farming in 1.12 ha of water body under the technical guidance of KVK in 2006-07. Technology on stocking density and species combination ratio, fertilizer management, management of diseases, harvesting and stocking manipulation etc were guided by KVK. He harvested average fish yield of 18.75 q/ha as against 11.62 q/ha in previous year without guidance. Shri Deb gained a net income of Rs 242500 and Rs 245000 in 2006-07 and 2007-08, respectively, with agricultural crop from the pond embankment. Where as prior to this in 2005-06, without any scientific knowledge and training he invested Rs 190000 and received Rs 130000 with a loss of Rs 50000.



Salient Features

- Adopted composite fish culture with proper stocking density, species combination ratio and nutrient management
- Efficiently utilized pond embankment with horticultural crops
- Increased yield 18.75 q/ha as against 11.62 q/ha
- Increased adoption of composite fish farming by 70-80 % among farmers

Composite fish farming in scientific manner is now adopted by 70-80% of the fish farmers, Self Help Groups, Farmers Interest Groups, and Farmer's Clubs in nearby locality and producing required amount of table fish. This has ensured stability in supply and price of different categories of fish in this region and projected per capita availability of 13 kg is going to be fulfilled against the present availability of 9 kg. Efforts are being made to launch a drive for practicing composite fish farming through individual farmers/cooperative groups/SHGs in the village Cerma of Uttar Chebri.

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Fish-cum-Duck Integrated Farming Enriches Rural Women



Directorate of Research on Women in Agriculture (DRWA) introduced fish-cum-duck integrated farming in 27 ponds of individual homesteads and community ownership covering 8.2 ha belonging to 257 women from 9 coastal villages of Puri and Khurda districts in Odisha. Khaki Cambell and Indian Runners variety of ducks were introduced in the system.

Ponds were selected which are away from the rice fields as the ducks have the tendency to enter into the rice field and damage the crop at the harvesting stage. Fish-cum-duck integrated system reduced input cost in term of feed and enhanced production 3.2 t/ha as against 2.0 t/ha with composite fish culture. Besides, generated an additional income through eggs and meat of ducks. Ponds more than 0.2 ha located nearby the household found to be suitable for effective maintenance of 40 ducks by rural women.

Because of social and religions restrictions, only women belonging to Scheduled Caste adopted fish-cum-duck farming. Reason is most of the women belonging to this caste are daily labourers and are willing to do labour. They readily accept the egg and meat of duck, which is generally not accepted by the higher class.

Salient Features

- Fish-cum-duck integrated system is a low input farming
- Efficiently utilized available farm resources
- No/less risk for diversification of farm enterprise
- Provided additional food and income
- Continued supply of wastes from ducks ensures the pond fertilization as well as reduces weed population and there by ensured sustainable production



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Deshi Ducks Improved through Cross Breeding



KVK, Purulia as a part of its transfer of technology bid through village adoption programme visited Manikdih village and interacted with the village head and other farmers for launching a number of developmental programmes. This was followed by survey of the village through PRA technique. This survey revealed that a programme on upgradation of deshi duck was initiated by State Animal Husbandry Department, but did not yield any result.

KVK learned in detail about this programme and observed that good number of deshi ducks were available in that village. Further interaction revealed that duck egg and meat have preference among the villagers. Moreover, demand for duck meat touches its peak during a local festival (Manasa Puja) as ducks are offered to Goddess. This revelation prompted the KVK to try upgradation of deshi duck through Khaki Campbell drakes in a phased manner. Thirteen number of Khaki Campbell drakes were arranged for 29 local ducks to start with this programme. Altogether 12 families were involved in this programme. After a span of six months the ducks started laying eggs of 78 gm weight each. This was followed by longer laying period (130-135 days as against 50-60 days for deshi ducks) and brooding of better quality ducklings (51 gm weight of day old duckling against 37 gm of deshi one) with almost nil mortality rate. The gain in body weight was also much better in cross bred ducks (1600 gm in 7 months as against 1025 gm of deshi ducks).



Salient Features

- Improvement of deshi ducks through crossbreeding
- This is a low cost technology
- Breed up gradation is possible with least monetary involvement
- Assured better return in terms of eggs and meat
- Women can practice this technology quite comfortably

Performance of upgraded ducks has helped 12 families earn sizeable additional income both from egg and meat. Price of these eggs is much higher due to its size and weight. Economy worked out by KVK indicated that only from eggs farmers are earning a profit of Rs 330 per duck. As Khaki Campbell is available @ Rs 70 only with State Poultry Farm, Purulia and ducklings do not need any extra care except vaccination against duck plague at 2 months of age, farmers are earning an additional income without incurring an extra expenditure. This low cost technology has been successfully adopted in 23 villages and number is increasing day by day.

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