



-:: Desi Poultry Farming ::-

Criteria for Poultry-

1. Poultry Farming at least one person in the family should be interested in devoting time to poultry farming
2. Must be ready to invest in capital.
3. The land should be in its own name, otherwise a lease agreement should be entered into.
4. Sufficient space for poultry rearing (half an acre land for breeding farm)
5. Must be able to write accounts.
6. All practices of the breeding farm should be developed and agreed upon.
7. Must agree to join a poultry farming common interest group.



Poultry Shed Design (Breeding Farm)

1. Elevated area is suitable for a chicken farm (should not be waterlogged during rains).
2. A wall of one to one and a half feet high should be built to protect against animals and insects (stone or old brick soil can be used to build the wall).
3. The 8 feet mesh should be placed on the one and half feet wall. tile and sheet is suitable for the ceiling.
4. The door of the shed should face east-west. A shed should be constructed so that air and light play smoothly.
5. 50 chickens can be reared in 10*10 spaces as 2 square feet per chicken.
6. Chickens should be fenced outside the shed and allowed to roam in it.
7. Chickens do not like to sleep on the floor during the night so they should be arranged to roost.
8. The ground inside the shed can be covered with Cow dung or cement.

**Importance of Plants in Poultry:**

1. A compound should be constructed around half an acre of land (plants such as Gliricidia, Moringa, subabul etc. can be grown. Use eucalyptus, bamboo sticks and mesh to protect the compound from other animals and birds)
2. The use of plants around and inside the compound provides shade, helping to reduce the outside temperature, especially during the summer season. To provide additional resting place for the chickens during the day, you can build a canopy with the help of a stick or a plant and spread the vine over it so that the chickens get shade and vegetables. Water should be arranged inside the compound.



It is advisable to divide the shed into 4 parts.

1. Section-1

This section should be reserved for laying egg hens. A shelf made of bricks with a tin sheet holding 12-15 egg boxes/baskets/shelves is useful. This allows chickens to come to specific areas and lay eggs. Collect eggs easily. This also reduces spoilage and loss of eggs.



2. Section-2

This section should be used as a hatchery, covered by cloth / green netting to provide isolation to the hatchlings. In this section 15-20 baskets/nets should be hung on the ground or as hatching nests. Some hay/sand/bedding material should be kept in baskets/nests. Water should be provided close to hatching birds.



3. Section-3

A separate section should be kept for the mother hen and the chicks to give more attention to the chicks in the early stages and to protect them from any kind of injury from other birds.

4. Section-4

A place where other chickens are. In this section of the shelter, perches should be made for the birds to rest during the night. Growers, roosters and dry hens should be kept in this place.



Required items for Poultry Farming

1. Water container.
2. Food container.
3. Cement ring/cut drum for growing Azola.
4. Soil pots for termite cultivation.
5. Incubation tray/stick stand.
6. Millet or paddy straw.
7. Scale to weigh.
8. Baskets for keeping chickens and chicks.

Poultry Breeds-

Sl. No	Desi breeds	Developed Breeds
1	Aseel	Assail Cross
2	Busra	Giriraja, Girirani

3	Dunkey	Vanaraja, Vanarani
4	Ghagas	Kaveri

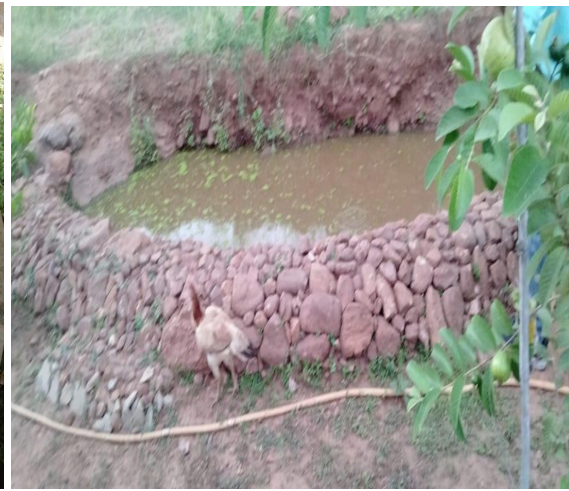


Sources of food that chicken can be fed:

1. Leftover food and vegetables at home.
2. Millet, rice, corn husk, rice bran, Groundnut Cake, Moringa leaves etc.
3. Azola
4. Termites can be cultivated
5. Prepared food can be served

Method of growing Azola

- Make a pit 6 feet long, 4 feet wide, 1.5 feet deep or take a 5 feet wide 1.5 feet deep cement ring and put a plastic tarpaulin 2-5 inches high / any field soil should be spread.
- Fill the soil with water to a height of one foot. If the water level decreases due to evaporation or any other factors, a small amount of water should be added to maintain the water level.
- 5-7 kg of fresh cow dung (one day old) should be mixed with water and poured into the tank.
- Sow 500 grams of fresh azolla over the water. (300 g seed Azolla is recommended)
- Azolla doubles in 7-10 days., It spreads the upper surface like a mat and can be harvested from the tenth day after sowing.
- Azola can be fed directly to chickens.



Termite Cultivation Method:

Take a pot and fill it with chopped dry grass, add cow dung water, jaggery water to it and keep the pot upside down on the soil. Keep the pot for 2-3 days, the termites will grow. Termites can be fed to chickens. 20-25 such pots can be used to provide more protein to chickens.



Food Sources: -

Dietary factors	Food sources	use
Carbohydrates	Maize, rice paddy, wheat paddy, millet, paddy	Body temperature balance and movement
Protein	Termite, Groundnut cake, Soya cake, Coconut cake	For body and egg development
Fat	Any edible oil	Body temperature balance and movement
Fiber and vitamins	Vegetables, Leaves, fruits, grass, sunlight	For bone and egg shell strengthening and body health

Minerals	Found in soil, rock. Found in snail shells, frog shells and egg shells. (Mineral mixer milk is also available in Milk dairy)	For bone and egg shell strengthening and body health
water	Needed for all bodily functions	

Method of preparing ready meals at home

Protein-4 kg (40%)

Carbohydrates-6 kg (60%)

Mineral mix-(2 tbsp)

Cooking oil-(50 ml)

Salt-(2 spoons)

Rearing and feeding of chickens:

1. Selection of chicken breeds

Chickens should be purchased from disease-free households. If new chickens are purchased, they should be kept individually in a basket or separate shelter for two weeks.

Points to consider while selecting chickens for breeding farm

- Clean and shiny feathers
- Beak and nostrils should be clean and dry
- Agile and enthusiastic behavior
- Check if the chickens are sleeping
- Ensure straight legs and toes, no signs.

2. Egg Handling:

Inside the shed. 15 to 20 nests should be kept for laying eggs, these nests can be made from local materials like bamboo baskets, wooden shelves, and broken soil. More hens lay eggs at a time. Therefore, providing a nest in large numbers can protect the eggs.



1. Separate nests should be kept in a quiet and dark place to avoid disturbing people and other birds during hatching.
2. The bottom of the nesting basket should be filled with sand and ash, then the top should be covered with clean and soft nesting material such as coir or straw, after which the eggs are placed.
3. In nests. Addition of ash, dry lime, tobacco leaves, neem leaves work as anti-parasitic substances, thereby improving hatchability.

NOTE: Shelter, perches, egg shelf, hatching basket / nest should be thoroughly cleaned regularly. Walls, perches, and doors should be whitewashed twice a year and always cleaned after serious diseases.

4. Chiks Management:

1. 0-1 week

Chicks are more vulnerable at this age. During the first 7 days, the chick should be kept with the hen at all times to protect it and adjust to the temperature. A chicken knows how to adjust.

A jute mat/sack should be placed at the bottom of the basket where the chicks are kept with the chicken, and food and water should be provided inside the basket frequently. Make sure to clean the basket and mat daily.



2. 1-3 weeks

During this period, chicks should be kept in a shelter or day basket at all times but the hen should be allowed to roam the field where she can hear her chicks sounds. Allow the hens to come back and spend time with the chicks and then go back to the garden. Chicks are fed high protein food and water. The day basket should be cleaned regularly. Hens and chicks should be kept together at night.



3. 3-6 weeks

During this period, the chicks should be allowed to go outside with the hen during the day as they grow up gradually, before the breeding farm entrepreneur observes the movements of the chicks for a few hours in the morning. Then, gradually increase the chicks' scavenging time with the hen. Provide chicks with high protein food in the day basket,

Do not leave older birds in the basket (creep feeding). Keep hens and chicks together at night.



4. After 6 weeks

The basket system should be removed and the chicks should be allowed to roam freely with the mother hen and with other birds. Supplementary food should be given in the evening as per requirement. After 6 months, 50 percent of the chicks should be sold to other households. Chicks can be given on a share basis if it is prevalent in the village as a traditional practice.

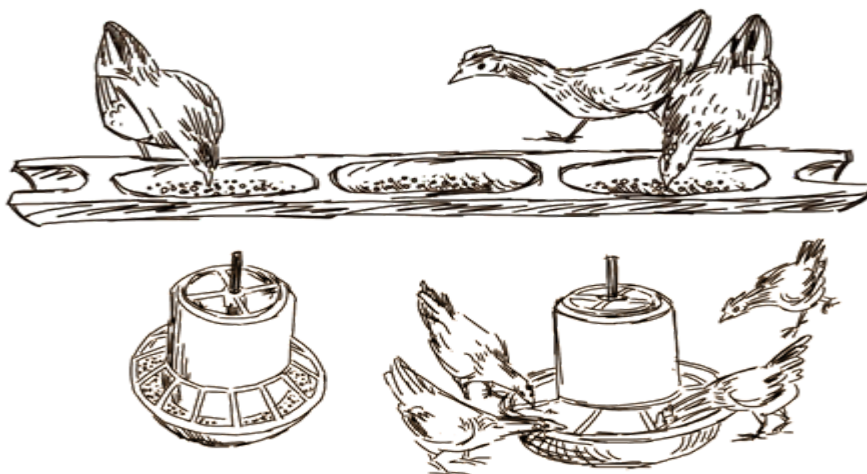


5. Poultry Flock Management:

A breeding farm where proper herd management is very important. Having ample fodder land (2000 square meters) and all package practices developed in the fodder area, the breeding farm is able to breed 50 hens and 10 Cocks . It consists of 1/4th hens in the laying stage, 1/4th hens in the hatching stage, 1/4th hens with chicks/chicks and the remaining 1/4th is dry. This sequence ensures regular chick production and the entrepreneur can give proper attention to chick management.

5.1 It is important to sell 50% of the chicks at 30-45 days of age, which reduces the feed requirement of the breeding farm. Another 25% of the chicks should be sold at the age of 90-100 days as growers and the remaining 25% should be allowed to grow to adulthood. Some of these adult birds will be useful to replace the existing breeding stock and the rest should be sold in the market.

5.2. If chicken fighting is found on a breeding farm, the entrepreneur should sell more birds (breeders and roosters; but maintain breeding stock) or increase the feed site or limit/separate roosters from breeders and hens.



6. Complementary food.

A breeding farm is a free-range system where chickens find most of their feed by scavenging in the foraging area. Availability of different scavenging/feed resource base (SFRB) due to changes in climate, geography, vegetation cover and practices package.

Young chicks require supplemental feeding as they are unable to find their own food. The supplementary feed requirement for different age groups of birds is given below:

Sl. No	age	Supplementary food to be given Dry food in grams
1	Week-1	10-15
2	Week-2	15-20
3	Week 3-4	20-25
4	Week-5-8	30-35
5	Week 8-27 (Growers)	30-40
6	28 (Adult)	25-30

As mentioned in the chick management section, chicks up to 2 weeks of age should only be fed protein-rich complementary foods. Puppies between 3-4 weeks of age should be given complementary food twice a day as per the requirement mentioned in the table above. To starve the birds to scavenging, allow them to forage early in the morning and then give half of the supplement during the day (between 8-10am) and rest in the evening when the birds return to the shelter after foraging. Inside the shelter feed the chicks first, then the hens and breeders and lastly the roosters.

Use feeders, feed cafeterias to provide feeders to minimize any waste. Clean drinking water should be provided twice a day. Feeders and drinkers should be cleaned daily.

Note:

1. Breeding farm entrepreneurs should schedule and calculate the weekly requirement of supplementary feed for birds and storage of necessary feed for at least 1 month. It is better to use home grown material to prepare homemade feed mix.

2. A small electronic weighing machine should be kept in the breeding farm, which is used to check feed weight and bird growth.

7. Management of Diseases:

Even though native birds have high resistance to diseases, a proper health management system needs to be established in the breeding farm. Since birds are exposed to outdoor facilities, it is important to have proper biosecurity measures in the breeding farm to minimize risk.



Precautionary measures to be followed compulsorily in breeding farm:

1. The first step is to isolate the sick bird from the flock and then begin treatment.
2. Always provide birds with clean water in a clean container/drinker
3. Complementary food should be kept in a dry and clean place.
4. Wash the feeder daily in clean water, allow it to dry and then feed.
5. Clean the shelter daily and keep it dry.
6. Plastering of shelter floor and wall.
7. Culling of lean birds from flocks that are susceptible and spread diseases.
8. Do not keep other species of birds like ducks, guinea fowl, turkey in the breeding farm
9. Deworm the birds 12-15 days before inoculation.
10. Vaccinate birds as per schedule.

Vaccines to be given to chickens are-

7th day	Raniket Lasota or F1 vaccine (eye injection)
14th day	Raniket Lasota or F1 vaccine (eye injection)
30th day	Raniket Lasota or F1 vaccine (put in drinking water)
6th week	Chicken Pox Vaccine (Injection)
8th week	Raniket Lasota or F1 vaccine (injection)
Administer Raniket Lasota vaccine in water every 3 months	



Ranikhet and Koli Amma (fowl pox) diseases are mainly found in Desi chickens.

1. Ranikhet

Symptoms of the disease.

- Yellow/green diarrhea
- Neck spasms
- Paralysis
- Difficulty breathing



Disease management measures:

- Nutritious food and clean water, reduces stress and increases immunity.
- Keeping birds outside during summer afternoons reduces mortality

2. Fowl Pox

Disease symptoms

- Warts appear like lumps on the face
- Ulcers in the mouth, larynx and trachea.



Disease management measures:

- Apply any antiseptic ointment (Soframycin, Terramycin)
- Turmeric powder should be mixed with coconut oil and applied.
- Terramycin or gentamicin eye drops if the eyes are affected

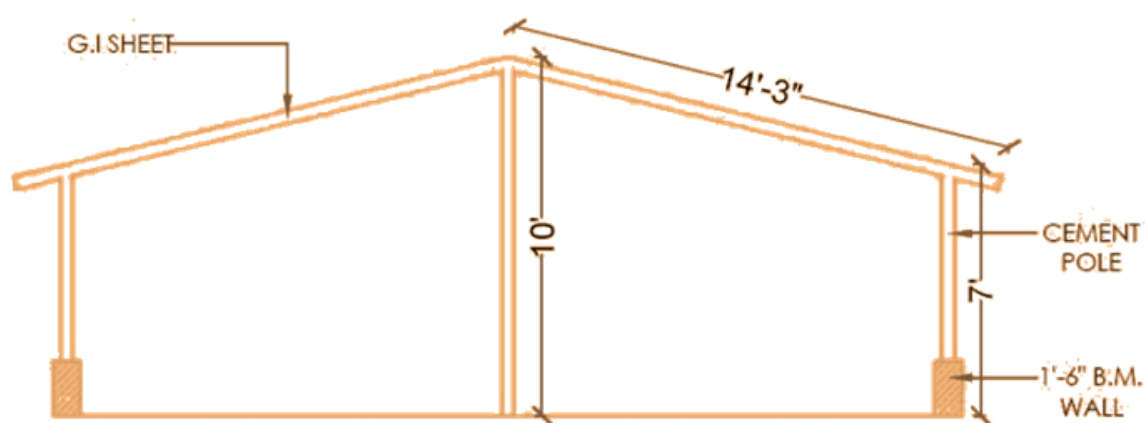
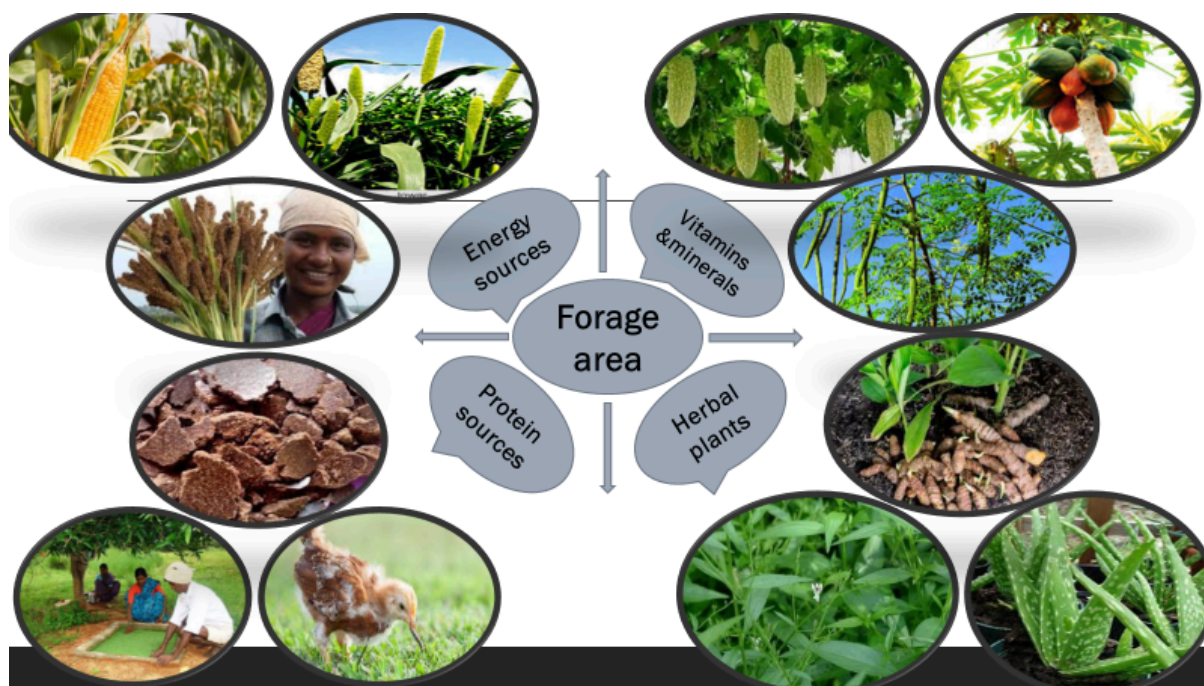
Chicken health can be improved naturally without using any chemicals and antibiotics.

No	Name of the plant	Use
1	Turmeric	Growth promoter, respiratory problem, parasite removal
2	Garlic	For growth promoting disease, chickens
3	Pepper	For breathing problems
4	Tulsi	Growth promoter, respiratory problem,
5	ginger	For breathing problems
6	Neem leaf	Mother hen
7	Neem seed	For immunity
8	Neem oil	For lice
9	Onion	For growth, Ranikhet for disease
10	Gooseberry	For body temperature balance
11	Lemon juice	For body temperature balance
12	Arecanut	To eliminate internal parasites

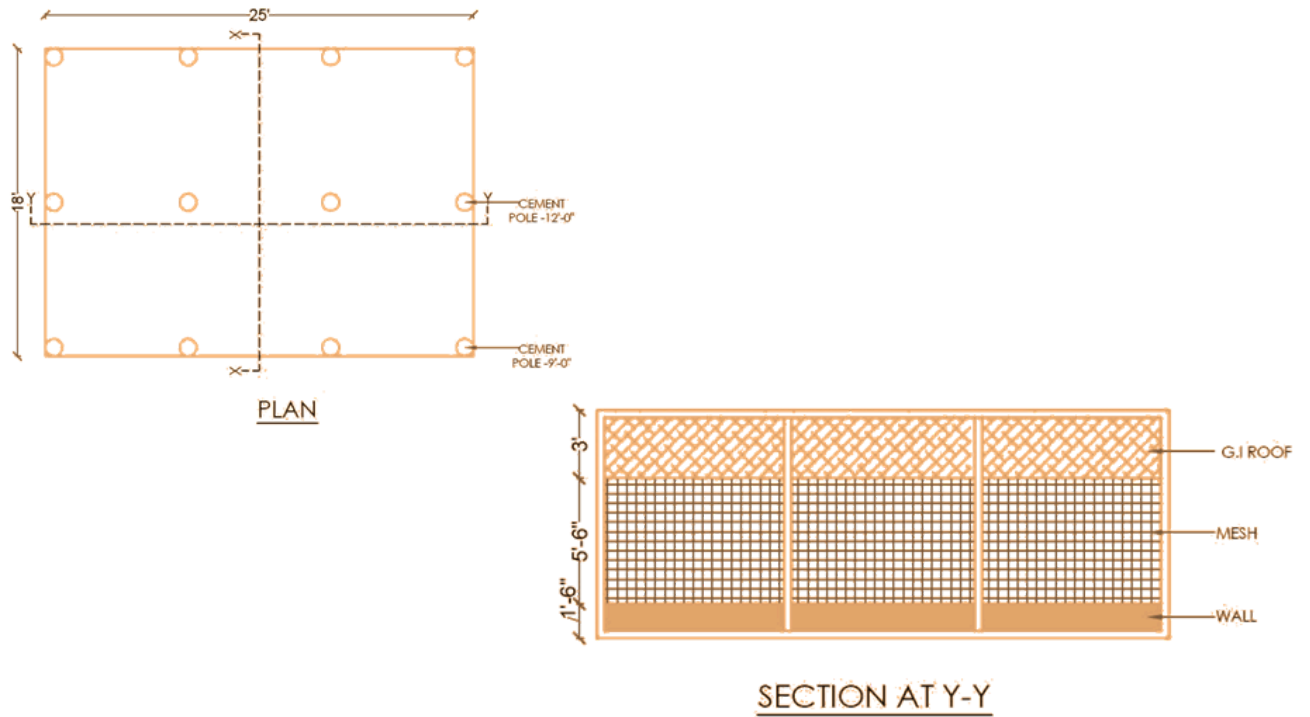
chicken lice and Pest Management in Poultry House:

1. For chicken honey, 4 ml of Botox solution can be added to one liter of water and immersed up to the neck for 2 minutes.
2. Applying hemp oil/neem oil to lemongrass and incubating it during brooding can control chicken lice.
3. Placing lemongrass, Mari gold, Sarpaganda, Garlic, Vishamadhari plants around the chicken house can prevent snake infestation.
4. If the chicken dies, it should be burnt or sealed inside a 5x5 feet pit.

Design and Estimate of Shelter of Breeding Farm



SECTION AT X-X



Economics at Household Level	
Particulars	Number
Household	1
Hen Unit	5
Eggs (@10 eggs/clutch; 3 clutch /year)	150
Eggs consumed at Home (summer clutch consumed 40%)	60
Eggs kept for Hatching	90
No of Chicks (Hatching % 80)	72

Economics at Household Level	
Survivability	60%
Total Birds Sale	43
Return at Household	
Returns on hens Sold in Rs (@Rs 300/- per bird) 43*300	12900

Economics at Breeding Unit (For 1 Year)	
Particulars	Number
Breeding unit	1
Hen Unit	50
Eggs (@10 eggs/clutch; 3 clutch /year)	1500
Eggs consumed at Home (summer clutch consumed 40%)	600
Eggs kept for Hatching	900
No of Chicks (Hatching % 80)	720
Number of Chiks sold (after 45 days) 350*100	35,000
Total Birds Sale after 6 to 8 Months 300*300	90,000
Total amount earning in 1 year	1,25,000

Investments			
SI No	Description	Qty	Amount
For Shed Construction (Breeding Unit)			
1	Cement brick	200	8000
2	Cement Poles 12'-0" HT	4	4000
3	Cement Poles 9'-0" HT	8	6400
4	Zinc Sheet (Minimum quality)	12	12000

5	Door	1	3000
6	Iron Mesh(Approx)	18*25	10000
7	Cement	2	800
8	M Sand	2	800
9	Angles	(18*25)	18000
10	Miscellaneous		2000
11	Mesh and Stick for running area		27000
12	Labour		18000
Total			1,10,000
Materials			
1	Basket for Hatching and Laying eggs	40	6000
2	Feeders and Drinkers	6	6000
3	Weighing machine	1	4000
4	Bamboo baskets for chicks	10	3000
5	Cement ring/ Tarpal (Azolla)	2	1500
6	Feeds		25000
7	Chicks	60	7000
Total			52500

