



WELCOME TO UTTAM POULTARY FARM

Better Agriculture for Better Future

Introduction to KUROIILER (GIRIRAJ)

KUROIILER (GIRIRAJ) is a branded dual-purpose bird developed through selective and controlled crossing of high-yielding indigenized poultry germplasm. It has been developed by KEGGFARMS, authorized by the Government of Nepal and the Food and Nutrition Security Enhancement Project (FANSEP). KUROIILER has been acclimatized to Indian tropical/subtropical conditions for several decades, thriving in harsh village environments like the non-descript flock variety. This low-input, hardy bird combines high productivity with desirable traits of indigenous breeds.

The males are tall, majestic, and agile, reaching over 4.0 kg at full maturity, while the females are large and active, producing over 150 eggs and weighing over 2.5 kg, primarily through scavenging on agricultural and natural waste. This bird enables households to achieve almost four times higher production of eggs and meat compared to non-descript poultry stock, all while being sustained similarly. It retains the color, agility, and disease resistance characteristics of traditional village chickens, with meat and egg quality that reflects their unique heritage.

With demonstrable results, rural poultry is increasingly seen as a meat-based activity. As people favor short-term crops, KUROIILER is becoming the preferred choice for small farmers. The genetic potential of KUROIILER birds can be maximized through proper feed, healthcare, and management. Effective preparation of the brooder house and adherence to various management practices are essential for achieving optimal results.

At Uttam Poultry Farm, we are committed to following best practices to maximize the benefits of KUROIILER farming, empowering small farmers to thrive.

This manual aims to highlight recommended management practices for successful KUROIILER (GIRIRAJ) farming at Uttam Poultry Farm.



2. Input Management

2.1 Floor Space Requirements

Age in Weeks	Floor Space per Chick	Total Area Required for 1000 Chicks	Remarks
1	0.10 sq.ft.	100 sq.ft.	With chick guard
2	0.25 sq.ft.	250 sq.ft.	Without chick guard
3	0.50 sq.ft.	500 sq.ft.	Without chick guard

Note:

Keep only one age group chicks at one place After one week remove the chick guard and for 1000 chicks cover 500 sq.ft. area by 1.5" thick saw dust or rice husk layer.

2.2 Equipment

2.2.1 Plastic Chick Feeders

Age in Weeks	Number of Feeders for 1000 Chicks	Capacity of Each Feeder
1	20	2.5 kg
2	30	2.5 kg
3	40	2.5 kg

2.2.2 Plastic Chick Waterers (3 Litres Capacity)

Age in Weeks	Number of Waterers for 1000 Chicks	Capacity of Each Waterer
1	20	3 litres
2	30	3 litres
3	40	3 litres

2.2.3 Heating Equipment

This may be a sigri/bukhari (for burning sawdust) or a gas brooder for light and heat.

2.2.4 Thermometer

One room thermometer with a range of 70°F to 120°F.

2.2.5 Chick Guard

This may be a GI sheet, 1.5 ft. in height and 20-25 ft. in length, suitable for 300-400 chicks. Three chick guards are required for 1000 chicks.

2.3 Bedding and Litter

10 bags sawdust/rice husk for 1000 chicks. Use always fresh & dry rice husk. Sawdust should not be wet and clumpy; otherwise, it will cause a fungus problem (brooder pneumonia).

2.3.1 Qualities of a Good Litter Material

- It must be cheap and locally available.
- It must be non-toxic, inert, and compressible.
- It must be soft, light in weight, and should have medium-sized particles.
- It must be free from mold growth.
- It must be free from sharp objects and other harmful materials.
- It should possess good insulating properties and protect chicks from extremes of climate.
- It must absorb moisture from droppings quickly and absorb minimal moisture from the atmosphere.
- It must release moisture and dry up rapidly and have the least tendency for cake formation.
- It must be amenable for the birds to scratch and play in the litter, as otherwise, they may develop vices such as pecking due to boredom.
- It must be biodegradable and form good-quality manure later.

2.4 Feed

For every chick, the quality and quantity of feed change according to the season and the chick's body weight. Use 5 kg finely ground maize for the first 4-5 hours, and after that, give chick starter

feed. Feeding should be four to five times a day, and every time mix the remaining feed in the feeder along with fresh feed.

Age in Days	Feed Consumption per 1000 Chicks (gm/chick/day)	Total Feed Required (Kg)	Progressive Feed Required (Kg)
7	15	105	105
14	25	175	280
21	35	245	525

2.4.1 Managing Feed

The expenditure on feed can be reduced by minimizing feed wastage and by proper feed management, including rodent control.

2.4.2 Providing Feeders

The feeding management process starts with providing a sufficient number of feeders of proper size. The feeders should be uniformly distributed in alternate rows parallel to the waterers so that a bird need not walk more than two meters to reach the nearest feeder. Moreover, the height of the feeders should be adjusted so that the brim of the feeder is at par with the back of the birds. Proper height of the feeders will encourage comfortable feeding without any spillage and wastage of feed. If the height is too low, there will be excess feed wastage. On the other hand, if the feeders are kept too high, the birds may not be able to take the feed properly, leading to poor growth rate. This results in weak birds and lack of uniformity in the flock. Manually filled feeders should not be filled to full capacity because it leads to feed wastage. Therefore, the manual feeders must be filled at least three times a day to only two-thirds of their capacity. This will not only prevent feed wastage but also ensure that birds take several fresh meals a day, leading to better growth and development. Mix the old leftover feed thoroughly with the new feed in the feeders to ensure its full utilization.

2.5 Medicine

On the first day, give jaggery in water @1 Kg/1000 chicks. In summer, give 1 g electrolyte in one liter along with jaggery. Dip the beak of every chick in the jaggery solution before leaving them under the brooder, and administer vitamins for 5 days.

2.5.1 Medication Schedule for Kuroilers

- **1st Day:** Jaggery @1 Kg/1000 chicks + Electrolyte @ 1 g/liter of water.
- **2-6 Days:** Vitamin B Complex @ 10 ml/100 chicks and Vit AD3EC @ 2-3 ml/100 chicks. Neodox Forte or Vendox or Brigold (1% Neomycin & 1% Doxycycline) @ 2.5 gms/1000 chicks in morning and evening drinking water for 5 days.
- **9-12 Days:** Any good quality liver tonic @ 5 ml/100 chicks.
- **15-19 Days:** Nutrical/Mercial (Cal., Phos. & D3 preparation) @ 10 ml/100 chicks.

NOTE: To avoid fungus problems (brooder pneumonia), use rice husk only as bedding material. In the beginning, spray copper sulfate (CuSO₄) every week & ensure that the litter is dry throughout the rearing period.

It is assumed that birds would be provided good quality palatable feed.

Day	Vaccine	Administration Method
5 Day	F1 strain (against Newcastle disease)	Through Nasal Drop
13 Day	IBD(G) strain (against Gumboro disease)	Eye Drop
20th Day	Lasota (against Newcastle disease)	In drinking water with skim milk @ 3-5 g/liter water

2.6.1 Care During Vaccination

- Vaccinate only healthy flocks.
- Do not vaccinate during very hot and very cold weather conditions.
- Store vaccines in a refrigerator at 2-8°C.
- Maintain the cold chain until the vaccine is administered.
- Never expose the vaccine to direct sunlight.
- Never use frozen diluents.
- Keep diluted vaccine in a cool condition.
- Use the diluted vaccine within one hour of preparation.
- Destroy the leftover vaccine, along with its container, by boiling and dispose of them safely.
- Dispose of the empty ampoules by burial.
- A minimum of six to seven days gap should be given between two vaccinations.
- Do not vaccinate in early stages (within 10 days) through drinking water.
- Note down the batch number, expiry date, name of the manufacturer, dealer, and other details for future reference.
- Stick the vaccine label in the flock record book/sheet on the day of vaccination.

2.6.2 Vaccination by Drinking Water

- Stop the application of water sanitizer for 12 hours before and after vaccination.
- Withdraw drinking water two hours prior to vaccination (one hour during summer).
- Scrub waterers thoroughly.
- Use clean water free from chlorine or disinfectants.
- Add skim milk powder at 3-5 g/liter of water and leave for 30 minutes.
- Handle the vaccine properly and distribute evenly in all drinkers.

3.1 Preparation for the Placement of the Chicks

- Remove old litter.

- The shed should be washed with clean water, preferably using a sprayer.
- The floor is to be soaked with 2 percent sodium hydroxide (NaOH) overnight for virus inactivation.
- The floor should be cleaned with water containing 10 percent phenol and 5 percent copper sulfate.
- Feeders and waterers should be dipped in boiling water using caustic soda and mild hydrochloric acid or iodophor compound for a few minutes, followed by usual washing. After cleaning, sun dry the equipment for a day or two.
- Burning of the floor, sidewalls, and the chicken wire mesh with a flame gun will kill most microbes. There is no alternative to heat treatments, as it kills all the germs.
- The shed is to be whitewashed with a solution containing lime powder, copper sulfate, kerosene, and formalin.

Lime Powder	20 kg per 1000 square feet
Copper Sulphate	5%
Kerosene	1%
Formalin	5%

3.2 PREPARATION OF THE CHICK GUARDS

The chick guard should be made from GI sheet, 18 inches in height and 20-25 feet in length for 300-400 birds.

- The chick guard should be ready before fumigation to ensure it is germ-free.
- Increase in the number of corners increases the chance of huddling and mortality. Arrange the chick guard in a circular manner and line the inside up to 1-2 inches with soft bedding for the day-old chicks.
- Spread one layer of newspaper sheets on the litter.
- Provide a heat source (sigri, bukhari, or a gas brooder) for brooding during winter months.

3.3 INDUCTION OF CHICKS

- Light the bulbs and gas brooder an hour prior to the arrival of chicks so that the brooder temperature reaches 90-95°F.
- Count the chicks properly while receiving and releasing.
- Release the chicks inside the chick guard after dipping their beaks in jaggery, glucose, or electrolyte water solution.
- Gently transfer the chicks from the chick box into the brooder and place them gently near the heat source.
- Observe the movements of the chicks inside the chick guard. The chicks should be active, move freely, scratch, take the feed and water, and make a chirping noise. If the chick distribution is not uniform, correct the brooding temperature and ventilation accordingly.
- Wait for some time to allow the chicks to drink water. Keep feed in a feeding tray. Do not sprinkle feed on papers as it gets contaminated.

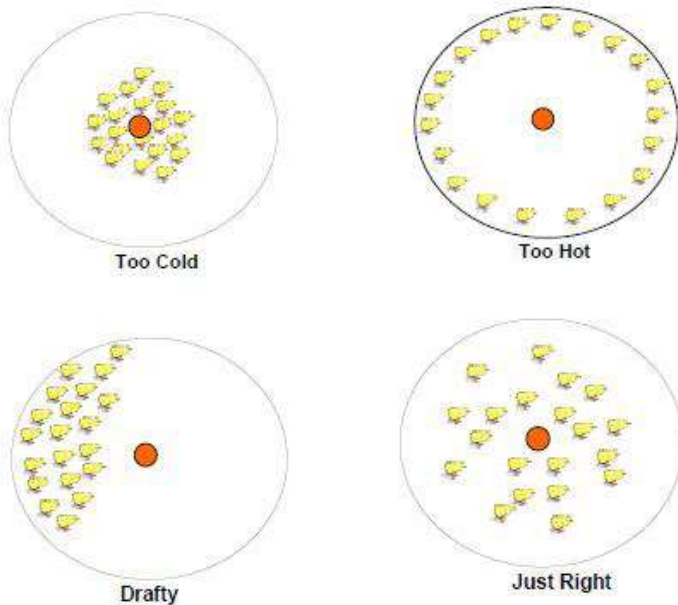
- For the first three days, watch the chicks at 2-3 hour intervals to ensure they have taken feed and water properly.
- Remove and replace the top paper layer after 2-3 days and remove wet litter, if any.
- Alert the chicks at periodic intervals as it facilitates faster yolk absorption in the first week.

3.4 MANAGEMENT OF BROODER HOUSE

- Fix the chick guard at a distance of 2.5'-3' around the brooder.
- Spread the sawdust and cover it with newspaper.
- Light the bulb and brooder one hour before the arrival of chicks.
- Cover all the windows and roof doors with poly sheets and gunny bags, except roof ventilation, but do not interrupt the air circulation.
- The temperature of the brooder house should be 90-95°F before the arrival of chicks.
- Place one thermometer 2' above the litter.
- There should be sufficient light for chicks. Provide natural light as much as possible.

Age in Weeks	Brooder Temperature in C	Brooder Temperature in F
1	35	95
2	32	90
3	29	85

JUDGING CHICK COMFORT BY PATTERNS WITHIN CIRCULAR BROODER GUARDS.



1. (A) Correct Temperature:

- In this diagram, the chicks are evenly spread around the guard.

- Proper heating results in an even distribution of chicks, indicating a comfortable temperature for them.
 - 2. **(B) Temperature Too High:**
 - Here, chicks are shown grouped away from the center and close to the outer edges of the guard.
 - This pattern indicates that the heat in the brooder is too intense, and the chicks are avoiding the center to escape the excess heat.
 - 3. **(C) Temperature Too Low:**
 - In this case, the chicks are bunched up tightly in the center.
 - This clustering indicates that the heat is insufficient, so the chicks are huddling together to stay warm.
 - 4. **(D) Draft:**
 - The chicks are unevenly distributed, with some grouped in one section of the guard.
 - This pattern suggests that there are drafts or uneven heating, making one part of the brooder warmer and the other part colder, forcing the chicks to gather where it's warmer
- **Lighting Management:** Chicks need continuous light until marketing. Use a 40-watt bulb for every 200 sq. ft. of floor space. Maximize natural light to enhance growth and health.

Biosecurity:

- Restrict visitor access to poultry sheds/farms.
- Prevent wild animals and birds from entering poultry areas.
- Install foot dips with lime powder, Phenyl, or disinfectant solutions at shed entrances to ensure cleanliness.

MORTALITY AT DIFFERENT STAGES:

First Week Mortality:
 This may be due to incubation faults, such as excess humidity in the final stages of incubation resulting in pot bellies and unhealed navels. Faulty brooding arrangements and infections, like omphalitis, can also lead to high mortality rates. In such cases, dead chicks may have unabsorbed yolk in their bellies.

Second Week Mortality:
 Mortality during the second week is mostly due to bacterial infections contracted at birth or immediately after placement.

Third Week Mortality:
 Mortality due to viral infections and feed deficiencies begins after the third week. Viral infections, such as New Castle, Gumboro, and Infectious Bronchitis, can cause severe mortality. Diseases like Coryza and Chronic Respiratory Diseases are commonly observed after the third week.

This image is a guideline for **judging chick comfort** based on their distribution patterns inside **circular brooder guards**, commonly used in poultry farming. There are four sections indicating different temperature conditions:

Contact Information

For more details or inquiries about KUROILER (GIRIRAJ) farming at Uttam Poultry Farm, please reach out to us:

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We look forward to assisting you on your farming journey!



Uttam Poultry Farm

*****Thank you *****