



Ethno-veterinary pig rearing practices among the major communities in Dhemaji district of Assam

PRAJWALITA PATHAK[✉] and GUNJAN GOGOI

Krishi Vigyan Kendra, Dhemaji, Simen Chapori 787 061 Assam India

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ABSTRACT

Pig rearing is a vital component of livelihood and cultural identity in Northeast India, particularly in flood-prone districts like Dhemaji of Assam. The present study was undertaken to document and analyze traditional pig husbandry practices across six major ethnic communities namely Mising, Deori, Sonowal Kachari, Hajong, Boro, and Ahom. Using participatory rural appraisal, focus group discussions, and structured interviews with 180 farmers, information was collected on indigenous practices of housing, feeding, and ethno-veterinary healthcare of common pig breeds viz. HDK-75, crosses of Large White Yorkshire, Large Black, Ghungroo and local pigs. Roof and floor type along with housing material used under housing practices, feeding criteria and types of feed ingredients, under feeding managements, ethno-veterinary practices their local name, scientific name, preparation method, route of administration, dosage, effectiveness and adoption % were the parameters that have been recorded under the study. Results revealed a wide range of context-specific strategies/ practices that were low-cost, eco-friendly, and well-adapted to the flood-prone agro-ecology. Bamboo-walled pens with thatched roofs (86.67% adoption) and deep-litter systems using paddy straw (68.89%) were the common housing practices. Feeding boiled tubers and other root crops (93.33%) with rice and kitchen leftovers (90.56%) were the dominated feeding practices, supplemented with banana pseudostem and traditional fermented rice-beer dregs. Ethno-veterinary practices were diverse. Twenty four medicinal plant species were identified for treatment. *Lasia spinosa* was used for dysentery (97.22% adoption) and *Mikania micrantha* for piglet diarrhoea (89.44%). These practices were very effective under resource-limited and disaster-prone conditions. The findings highlighted the significance of documenting Indigenous Technical Knowledge (ITK) to preserve cultural heritage, validate local innovations, and design location-specific interventions that integrated traditional wisdom with modern piggery management for sustainable rural livelihoods.

Keyword: Ethno-veterinary practices, Indigenous pig rearing, Traditional pig rearing

Pig rearing has historically been a cornerstone of livelihood security in North-East India, particularly in Assam, where it plays a dual role as both an economic activity and a marker of cultural identity (Talukdar *et al.* 2019). Unlike other regions of India, where piggery has moved towards commercial production systems, pig husbandry in Dhemaji district is ethnically diverse, particularly in the flood-prone area bordering Arunachal Pradesh. The traditional practices are being followed through generations. These practices are not limited to production aspects such as feeding, housing and healthcare, but, are also embedded in social, ritualistic and market-oriented dimensions that reflect the deep cultural ties between communities and their livestock.

Despite its socio-economic importance, pig farming in Dhemaji faces multiple constraints, including limited access to veterinary services, frequent disease outbreaks, poor infrastructural support, recurrent floods and the overall

vulnerability of rural households (Saikia *et al.* 2019). In such contexts, Indigenous Technical Knowledge (ITK) has emerged as a crucial, low-cost alternative to modern pig husbandry. These ITKs, refined over generations, encompass a wide range of practices related to feeding, breeding, housing and health management, and their persistence underscores both their cultural acceptance and practical efficacy (Boruah *et al.* 2023).

The Dhemaji district is home to diverse groups of Mising, Deori, Sonowal Kachari, Hajong, Boro, and Ahom communities (Saikia *et al.* 2019), each of whom has developed context-specific strategies for pig management suited to their ecological and cultural settings. However, much of this knowledge is orally transmitted, leaving it vulnerable to erosion under the pressures of modernization and changing farming systems. Therefore, documenting and validating these practices are vital for enhancing pig productivity, safeguarding indigenous knowledge, and designing location-specific interventions that integrate traditional wisdom with modern piggery management.

This study was, therefore, undertaken to explore and document the traditional pig rearing practices followed by

Present address: Krishi Vigyan Kendra, Dhemaji, AAU, Simen Chapori 787061, Assam, India. [✉]Corresponding author email: prajwalita.pathak@aau.ac.in

the major communities of Dhemaji district of Assam. By highlighting community-specific knowledge on housing, feeding, and healthcare management, the study seeks to provide insights that might guide policy, extension, and development programs aimed at strengthening pig-based livelihoods in the region and also it will help in preserving traditional knowledge of various communities which are at the border of disappearance due to urbanization and modernization.

MATERIALS AND METHODS

Study area: Agro climatically, Dhemaji district falls under the North Bank Plain Zone (NBPZ) of Assam and is located between 94°12'18"E and 95°41'32"E longitude and 27°05'27"N and 27°57'16"N latitude. Administratively, the district is divided into six (06) development blocks namely, Dhemaji, Bordoloni, Machkhowa, Sissiborgaon, Simen Sissitongani and Jonai (MSTD). The average annual rainfall of the study area was recorded as 2476 mm with max. and min. ambient temperature was 29.08°C and 17.5°C, respectively. For the present study, a total of 180 numbers respondents, traditionally involved in pig rearing were selected representing 06 (six) communities namely Mising, Deori, Sonowal Kachari, Hajong, Boro, and Ahom across the district which was 30 from each community. The study was conducted on common pig breeds *viz.* HDK-75, Large White Yorkshire x indigenous, Large Black x indigenous, Ghungroo x indigenous pigs.

Survey method: For the collection of data, survey with a pre-structured schedule was conducted using extension methods such as participatory rural appraisal (PRA) and focus group discussion, practicing farmers, community leaders, and finally, interviews with selected farmers through personal contact. The selection of respondents was based on contact with KVK expert, group discussion and interactions that were conducted during organizing training and other extension programmes by KVK Dhemaji and experienced pig farmers in the field of traditional practices. Thus, a total of 180 livestock farmers representing 06 communities participated in the study and the sample size was justified as the same practices are followed within the communities. An interview schedule was prepared to gather the detailed information aligning to the objective. During the survey time, prior informed consent (PIC) was taken from the respondent, particularly community leader for publication of this traditional wisdom.

Data recording and statistical analysis: Finally, a list of the traditional practises (housing, feeding and health care of pig farming) was prepared along with name of plant species used, method of preparation, administration, communities reported and the condition for which practices were used. Then, 180 identified farmers were asked individually on listed traditional practices, whether he or she had been using in housing, feeding, or treating the ailments of their pigs to assess the degree of adoption of each indigenous practices, expressed in percentage. Adoption percentage was calculated by how many farmers followed a given

traditional practice out of the total respondents by the following formula

$$\text{Adoption \%} = \frac{\text{No. of respondents adopting a practice}}{\text{Total number of respondents}} \times 100$$

The individual traditional practices were ranked from 1st to 7th based on adoption percentages, with ranks assigned as follows: above 80.0% (1st), 70.0–79.9% (2nd), 60.0–69.9% (3rd), 50.0–59.9% (4th), 40.0–49.9% (5th), 30.0–39.9% (6th), and 20.0–29.9% (7th). To study the effectiveness each of the ITK recorded, the Effectiveness Index (EI) were collected through questionnaires measured by using a 3-point scale during interviews/FGDs as Highly effective (Score = 3), Moderately effective (Score = 2) and Less effective (Score = 1) by respondents who has adopted particular practice with the help of following formula:

$$\text{Effectiveness Index (EI)\%} = \frac{((\text{No. of respondents rating Highly Effective} \times 3) + (\text{Moderately Effective} \times 2) + (\text{Less Effective} \times 1))}{(\text{Total respondents for that ITK} \times 3)} \times 100$$

The data were analysed following standard statistical methods of Snedecor and Cochran (1994).

RESULTS AND DISCUSSION

The study revealed a wide range of traditional pig rearing practices related to housing, feeding and ethno-veterinary health care measures among the major communities of Dhemaji district, Assam. Those practices, deeply rooted in local culture, were found to be cost-effective, eco-friendly, and well-adapted to the flood-prone agro-ecological conditions of the region. The sample comprised a 30:70 female-to-male ratio, covering age groups ranges from 35-65 years old, ensuring representative insights into traditional pig rearing practices across the major communities.

Housing practices: The study revealed seven (07) major indigenous housing practices followed by the communities (Table 1). Indigenous housing systems were primarily based on the use of locally available materials such as bamboo, thatch, and mud. The most widely adopted housing system was the bamboo-walled pens with thatched roof, practiced by Mising, Deori, Sonowal Kachari, and Ahom communities, with an adoption rate of 86.67% and effectiveness of 86.97% (Table 4). Similar observations were reported in Assam (Shyam *et al.* 2016), Arunachal Pradesh (Thokchom and Dewangan, 2024) and Nagaland (Singh *et al.* 2019 and Singh *et al.* 2023), where bamboo-based pig housing was noted for affordability and climatic suitability. The deep-litter system using paddy straw for farrowing nests was the second most common bedding material (68.89%), reported to reduce piglet mortality and provide warmth during farrowing. This practice aligned with recent findings of Sylvén *et al.* (2025) who emphasized the role of straw bedding in improving farrowing success. They reported that pig housed on deep straw had a higher number of liveborn and weaned

Table 1. List of traditional pig housing practices among major communities in Dhemaji district of Assam

Sl. No.	Traditional practices	Brief of the practices	Community reported	Remarks
1	Bamboo-walled pens with thatched roof	Locally available bamboo is extensively used in constructing the pen, serving both as poles and walls. Whole bamboo pieces are utilized to enhance structural strength. For roofing, locally available thatch (kher) or leftover paddy straw (nora) is commonly used	Mising, Deori, Sonowal Kachari, Ahom	Provide low-cost well-ventilated housing
2	Deep-litter with paddy straw for farrowing nests	Thick paddy straw bedding for sow farrowing	Mising, Hajong, Boro	Low-cost and locally available material to provide comfort during farrowing. Also provide warmth for piglets, reduces piglet mortality.
3	Raised bamboo platform pens	Elevated bamboo flooring constructed for pen	Mishing, Bodo	Keeps animals dry, reduces disease in flood-prone areas
4	Katcha (mud) floors for pens	Simple compacted earth floors used in some small pens (cheap, readily re-made after monsoon)	Mising, Deori, Hajong	Provide shelter for pig
5	Keeping pigsties under the main stilted house	Farmers keep pigs in the area under their raised homestead	Mising (very common), Deori	Saves space, uses existing raised structure and shelters for animals
6	Tethering of pig	Pigs are reared in backyard by tying through a rope	Mising, Boro, Hajong	Low-cost rearing system of pigs in backyard
7	Application of cow-dung plaster on walls/flooring of sheds	Fresh cow-dung mixed & applied to floors/walls and allow to dry	Sonowal Kachari, Hajong, Ahom	Insulation, insect deterrence, easy cleaning — traditional maintenance.

piglets and lower incidence of antibiotic treatments than sows with less bedding/manipulable materials. In flood-prone areas, raised bamboo platform pens were adopted by Mising and Boro communities, although adoption was relatively lower (37.22%), but the system provided critical benefits by keeping animals dry and minimizing disease occurrence. Traditional practices like keeping pig sties under stilted houses (41.11%) resonated with the report documented by Banik *et al.* (2020). Plastering walls/floors with cow dung (41.11%) or mud (47.78%) reflected both hygienic considerations and integration with indigenous architecture. The persistence of pig tethering (37.78%), despite modernization, indicated its relevance for households with small landholdings and minimal inputs, which was consistent with reports from rural Meghalaya (Payeng *et al.* 2025).

Feeding practices: Eight traditional feeding practices were recorded (Table 2). Traditional feeding strategies emphasized the use of household and farm by-products, ensuring low-cost nutrition. The most adopted practice was feeding of boiled tubers/root crops *viz.* sweet potato, colocasia, yam (93.33%) with 86.51% effectiveness (Table 4) that aligns with the findings reported by Moanaro *et al.* (2011), and Patra *et al.* (2014). The second most adopted traditional practice recorded was feeding of cooked rice mixed with kitchen leftovers (90.56%), showing high effectiveness 89.98%. It has been observed that the tribal farmers have evolved a self-sustainable local resource based production system, in which pigs are mainly fed

with local vegetation, crop residues and kitchen waste (Kumaresan *et al.* 2007). Those feeding systems were common across Mising, Hajong, and Sonowal Kachari communities, providing affordable sources of energy and palatability. Feeding of banana pseudostem (78.89%) was popular in hot months due to its cooling and laxative properties and similar statement was also highlighted by earlier studies (Nath *et al.* 2013). Supplementary protein sources included fermented rice-beer dregs (52.78%), oil-cakes (40.56%), and dry/fermented fish remnants (26.11%), although adoption of latter was quite low. Such practices were previously reported to improve growth and reproductive performance in smallholder pig systems (Singh *et al.* 2019). The practice of adding kitchen ash or crushed eggshell (37.78%) was also observed as a calcium source indicated indigenous awareness of mineral supplementation. These feeding strategies highlight the reliance on low-cost, locally available feed resources to sustain pig production in resource-constrained households.

Health care practices: Significant works have been made in recent years in documenting medicinal plants that ethnic tribes in Northeast India (Borah *et al.* 2023, Gogoi and Borah, 2022 and Doley *et al.* 2022) and various parts of India have traditionally been used to treat animal ailments which reflect some resemblance in case of names of plants but their method of preparation and mode of applications varied. Which may have been attributed to the absence of proper validation. In the present study, a diverse range of ethno-veterinary practices was recorded,

Table 2. List of traditional pig feeding practices among major communities in Dhemaji district of Assam

Sl. No.	Traditional practices	Brief of the practices	Community reported	Remarks
1	Rice-beer (<i>apong/juguli/poka</i>) dregs or fermentation by-products	Residue from home-brewed rice beer mixed into feed or given as slurry.	Mishing, Deori, Ahom	Fattening pigs, increases feed palatability and intake in young/poor-condition animals.
2	Rice/boiled rice + kitchen leftovers (cooked rice mixed with vegetables/veg waste)	Leftover cooked rice is mixed with vegetable peels, boiled greens or dal water and offered warm or at room temp.	Mising, Boro, Deori, Ahom	Affordable energy feed that improves acceptability; common for sows and piglets in household systems. rescue feed for weak/thin animals.
3	Banana stem (fresh chopped) feeding (<i>Kol posola</i>)	Fresh chopped banana pseudostem	Mising, Sonowal Kachari, Hajong, Ahom	Cooling fodder, laxative effect, hydration in hot months.
4	Dry/fermented fish or small fish remnants mixed with rice	Small dried fish or fish scraps ground/mixed with rice or bran and fed as protein supplement	Mising, Deori, Hajong	Local protein source that raises growth and health where commercial feeds are unaffordable
5	Boiled tubers / root crops sweet potato, colocasia (<i>Mitha aloo, Kasu</i>)	Boiled tubers/root fed (often mashed) to animal as peelings/ leftovers.	Mising, Hajong, Sonowal Kachari	Highly palatable energy source; used when tuber harvests occur or to fatten animals.
6	Use of oil-cakes (<i>Khalihoi</i>) as protein supplement	Small quantities of oilseed cake mixed with basal feed	Boro, Hajong, Ahom	Protein supplement to improve growth/lactation.
7	Kitchen ash / crushed eggshell (calcium supplement)	Crushed eggshell or kitchen ash sprinkled into feed occasionally	Mising, Sonowal Kachari	Used locally as inexpensive calcium/alkaline source

Table 3. List of traditional health care practices recorded in pig rearing among major communities in Dhemaji district of Assam

Sl. No.	Traditional practices/Local name	Brief preparation/ mode	Community reported	Common name	Scientific name	Condition / use in / Diseases
1	Smoke fumigation of pig sty (periodic) with straw or leaves of Neem	Burning of straw or green leaves briefly to create smoke in shed	Mising, Boro, Sonowal Kachari, Ahom, Deori, Hajong	Neem	<i>Azadirachta indica</i> A. Juss.	Repels/controls ectoparasites (lice, flies) and insects
2	Neem leaves/ ash placed in bedding	Fresh neem leaves or ash spread on bedding/litter	Sonowal Kachari, Ahom	Neem	<i>Azadirachta indica</i> A. Juss.	Natural insect/ ectoparasite deterrent and mild antiseptic
3	Use of aromatic leaves- Tulashi in shed	Placing aromatic foliage in houses for repellent action	Ahom, Boro	Indian Basil / Holy Basil	<i>Ocimum tenuiflorum</i> L.	Reduce insect load and foul odour; respiratory comfort
4	Feeding of Kolmou and Khutura	Give the whole plant to the animal post partum to improve milk production	Mising, Sonowal Kachari	Water Spinach, Amaranth	<i>Ipomoea aquatica</i> , <i>Amaranthus</i> spp.;	Post-partum special feeding (galactagogue greens) to enhance milk flow and help in piglet/calf survival
5	Application of Turmeric (Halodhi) paste topically or orally	Fresh rhizome paste applied to wounds or given orally diluted	Mising, Hajong	Turmeric	<i>Curcuma longa</i>	Antiseptic/anti-inflammatory for wounds, mastitis adjunct
6	Raw Naharu given as anthelmintic support	Garlic crushed and mixed in feed / orally given	Mising, Deori	Garlic	<i>Allium sativum</i>	Used for parasitic control and general tonic
7	Neem seed/leaf preparations for mange and ectoparasites	Neem leaf decoction or seed paste applied topically	Deori, Boro, Ahom	Neem	<i>Azadirachta indica</i>	Treatment of mange, lice, ticks; repellent

Table 3 contd.

Table 3 concluded

Sl. No.	Traditional practices/Local name	Brief preparation/ mode	Community reported	Common name	Scientific name	Condition / use in / Diseases
8	Use of Naharu and Jeera paste	Crushed garlic & <i>Cuminum</i> fed as paste or in feed	Hajong, Ahom	Garlic & Cumin	<i>Allium sativum</i> , <i>Cuminum cyminum</i> ;	Traditional remedy for enteric disorders
9	Manimuni leafy green mash form convalescence	Fresh leaves mashed into feed or juice are given orally in different conditions	Mising, Hajong	Lawn Marsh Pennywort	<i>Hydrocotyle sibthorpioides</i> Lam.	Given to weak or recovering animals to improve appetite or in fever
10	Use of locally prepared antiseptic herbal wash	Decoctions of leaf (neem/turmeric) used to wash wounds	Mising, Sonowal Kachari	Neem, Halodhi	<i>Azadirachta indica</i> , <i>Curcuma longa</i>	Topical antiseptis for wounds and skin infections.
11	Use of Juice/ paste prepared from Manimuni, Bhedailata, Dorun bon	Leaves of all the plants are crushed and fed to the affected animal and juice is also given orally	Mising, Hajong, Ahom	Lawn Marsh Pennywort, Stinkvine, Thumbai	<i>Hydrocotyle sibthorpioides</i> Lam, <i>Paederia foetida</i> L., <i>Leucas aspera</i> (Wild.) Link	Given to an animal in fever
12	Use of Masundari, Satiyana, Aamlakhi	Juice made by mixing of all the ingredients equally is given orally	Deori, Ahom	Heartleaf, Devil's tree, Amla	<i>Houttuynia cordata</i> Thunb, <i>Alstoniascholaris</i> (L.) R.Br., <i>Phyllanthus emblica</i> L.	Treatment against fever with diarrhoea
13	Use of Bhang leaves	Juice of fresh leaves (20/25 numbers) or powder of dried leaves (10-20 g) is given orally	Deori, Hajong, Boro	Indian hemp/ marijuana	<i>Cannabis sativa</i> L.	Given to piglets suffering from diarrhoea
14	Use of Premlota/ Japani lota	Juice of leaves (30/40 g) is given orally	Mising, Hajong	American Rope/ Chinese Creeper	<i>Mikania micrantha</i> Kunth,	Diarrhoea in Piglet
15	Use of Sengmora	The plants are crushed and given to animals by mixing with feed	Mising, Boro	Spiny Lesia	<i>Lasia spinosa</i> (L.) Thwaites	Used against dysentery
16	Use of Sirota	Juice extracted by crushing tender stem and leaves are given orally	Mising, Deori, Ahom	Stalked Persian Violet	<i>Exacum padunculat</i> L.	Used against worm problem (endoparasites)
17	Use of Dhopat	It is applied to the wound for 3-4 days using a paste made from grounded dried leaves of Dhopat and dissolved lime.	Mising, Hajong	Tobacco	<i>Nicotiana tabacum</i> L.	Treatment of Maggoted wound
18	Use of Aamlakhi, Kaji Nemu juice periodically	Juice of amla (10-15 numbers) or juice of lemon (2/3 numbers) fed by mixing with feed or water fed regularly	Mising, Deori, Ahom	Amla, Assam lemon	<i>Phyllanthus emblica</i> L., <i>Citrus limon</i> L.	Given to animals to increase resistance capacity against viral infection

demonstrating strong traditional knowledge systems for pig health management. A total 24 numbers of plants species have been recorded being used in ethnoveterinary practices (Table 3). The most widely adopted practice

was found to be the use of Sengmora (*Lasia spinosa*) against dysentery, which was reported by 97.22% of farmers with 81.71% effectiveness (Table 4). Similarly, Premlota (*Mikania micrantha*) against piglet diarrhoea

(89.44%), polyherbal mixtures like *Houttuynia cordata* Thunb, *Alstoniascholaris* (L.) R.Br., *Phyllanthus emblica* L. against fever with diarrhoea (82.78%) demonstrated the community's reliance on locally available botanicals with known pharmacological properties. Similar uses of these species have been reported in other parts of the state (Kumar *et al.* 2020, Pathak *et al.* 2024). Smoke fumigation of pig sties using straw or neem leaves (80.56%) were found to be popular among communities and believed to be effective for disease prevention. It has been observed that herbal remedies such as turmeric paste (2nd most widely used practice) we used for wound healing with an adoption

rate 73.33% and (84.60% effectiveness). A comparable practice has also been reported earlier by Gogoi and Borah (2022) and Doley *et al.* (2022). The practice of feeding Manimuni (*Hydrocotyle sibthorpioides*) for convalescence (73.33%), and neem-based treatments for ectoparasites (75.56%) were also found to be widely practiced by various communities of the district. They varied in use from earlier reported studies (Kumar *et al.* 2020, Doley *et al.* 2022, and Pathak *et al.* 2024). Other important remedies included garlic-based preparations for parasitic control (51.67%), juice of amla (*Phyllanthus emblica* L.) and assam lemon (*Citrus limon* L.) to enhance disease resistance (40.00%),

Table 4. Adoption (%), rank and effectiveness of the recorded traditional practices in pig rearing in Dhemaji district of Assam

Sl. No.	Traditional practices	(Adoption)* %	Rank	Effectiveness (%)
Housing practices				
1	Bamboo-walled pens with thatched roof	86.67 (156)	1 st	86.97
2	Deep-litter with paddy straw for farrowing nests	68.89 (124)	3 rd	81.72
3	Katcha (mud) floors for pens	47.78 (86)	5 th	89.15
4	Keeping pigsties under the main stilted house	41.11 (74)	5 th	81.98
5	Application of cow-dung plaster on walls/flooring of sheds	41.11 (74)	5 th	53.15
6	Tethering of pig	37.78 (68)	6 th	91.67
7	Raised bamboo platform pens	37.22 (67)	6 th	49.25
Feeding practices				
8	Boiled tubers / root crops (sweet potato, colocasia, yam) pig forage	93.33 (168)	1 st	86.51
9	Rice/boiled rice + kitchen leftovers (cooked rice mixed with vegetables/veg waste)	90.56 (163)	1 st	89.98
10	Banana stem (fresh chopped) feeding	78.89 (142)	2 nd	70.19
11	Rice-beer (apong/juguli) dregs or fermentation by-products	52.78 (95)	4 th	67.37
12	Use of oil-cakes (Khalihoi) as protein supplement	40.56 (73)	5 th	44.29
13	Kitchen ash / crushed eggshell (calcium supplement)	37.78 (68)	6 th	61.76
14	Dry/fermented fish or small fish remnants mixed with rice	26.11 (47)	7 th	44.68
Health care practices				
15	Use of Sengmora	97.22 (175)	1 st	81.71
16	Use of Premlota/Japani lota	89.44 (161)	1 st	67.29
17	Use of Masundari, Satiyana, Aamlakhi	82.78 (149)	1 st	81.21
18	Smoke fumigation of animal houses (periodic)	80.56 (145)	1 st	63.22
19	Use of Juice/paste prepared from Manimuni, Bhedailata, Dorun bon	77.22 (139)	2 nd	82.49
20	Neem seed/leaf preparations for mange and ectoparasites	75.56 (136)	2 nd	71.32
21	Application of Turmeric (paste/topical application)	73.33 (132)	2 nd	84.60
22	Manimuni leafy green mash for convalescence	73.33 (132)	2 nd	68.69
23	Neem leaves/ash placed in bedding	67.22 (121)	3 rd	60.61
23	Use of Sirota	61.11 (110)	3 rd	63.03
24	Use of Bhang leaves	57.78 (104)	4 th	69.87
25	Raw Naharu given as anthelmintic support	51.67 (93)	4 th	69.53
26	Use of Naharu and Jeera paste	48.33 (87)	5 th	65.13
27	Use of locally prepared antiseptic herbal wash	42.22 (76)	5	56.14
28	Use of Aamlakhi, Kaji Nemu juice periodically	40.00 (72)	5	74.54
29	Use of Dhopat	36.11 (65)	6	48.72
30	Use of aromatic leaves (tulashi) in shed	28.89 (52)	7	51.92
31	Feeding of Kolmou and Khutora	23.89 (43)	7	41.86

*Data within parenthesis are number of adopted respondents

and locally prepared antiseptic washes (42.22%). Although some practices like use of aromatic leaves (tulsi) in pig sheds (28.89%) and feeding of water spinach (*Ipomoea aquatica*) and amaranth (*Amaranthus* spp.) as galactagogues (23.89%) were less adopted, they reflected valuable traditional ecological knowledge.

The study underscores the critical role of traditional pig rearing practices in sustaining livelihoods, cultural identity, and ecological adaptation in Dhemaji district of Assam. Communities continue to rely on locally available materials, crop by-products, and herbal remedies to manage housing, feeding, and healthcare challenges, particularly under the recurrent threat of floods and limited veterinary access. While these practices remained cost-effective and socially embedded, they face gradual erosion due to modernization and changing farming systems. Documenting and validating such Indigenous Technical Knowledge is therefore essential not only for improving pig productivity but also for safeguarding cultural heritage. The findings call for extension strategies and policy interventions that recognize and integrate traditional practices with scientific approaches, thereby strengthening pig-based livelihoods, enhancing resilience, and ensuring sustainable livestock development in flood-prone regions of Northeast India.

The above study highlighted the significance of documenting Indigenous Technical Knowledge (ITK) to preserve cultural heritage, validate local innovations and design location-specific interventions that integrated traditional wisdom with modern piggery management for sustainable rural livelihoods.

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