FROM ROOTS TO REMEDIES: ASSESSING THE EFFICACY OF INDIGENOUS HERBAL PRACTICES IN ORGANIC POULTRY HEALTH AND CULTURAL CONTINUITY.

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Abstract

Native herbal treatments have gained attention again as sustainable substitutes for synthetic veterinary medications due to the growing interest in organic chicken production around the world. Plant-based treatments made from locally accessible herbs, fruits, and leaves have long been used by farmers in Nigeria and other African countries to improve the health of chickens, increase egg output, and lower mortality rates. Examining the effectiveness of indigenous herbal practices in organic poultry health and cultural continuity is the title of this study to investigates the effectiveness of selected indigenous herbs in maintaining poultry health while preserving cultural knowledge systems. Twenty local chicken farmers who actively use herbal-based poultry treatment from Kogi, Enugu, and Delta States participated in in-depth interviews, focus groups, and observations as part of a qualitative study strategy. Tagiri (Christmas melon), Kalanchoe pinnata (wonder leaf), pawpaw leaves and seed, beetroot, rodo pepper, beetroot, quaver leaf, cassava leaf, rice water, bay leaves, soursop leaves, aloe vera, ginger, garlic, neem leaves, and turmeric are among the important herbs that were analyzed. According to research, these herbs are frequently used to prevent and treat a variety of chicken illnesses, including growth retardation, respiratory infections, intestinal worms, Newcastle disease, coccidiosis, and poor egg production. Herbal medicines are affordable, locally available, eco-friendly, and culturally meaningful, according to farmers. Their use also promotes knowledge transfer between generations, which helps maintain cultural continuity.

Keywords: Indigenous herbs, poultry health, organic farming, cultural continuity, sustainable agriculture, Nigeria.

1.0 INTRODUCTION

1.1 Background of the Study

In Nigeria, the production of poultry is an essential component of agriculture that greatly enhances food security, revenue generation, and job opportunities. Poultry farming on a small to medium scale helps to address the expanding population's protein needs while also supporting household livelihoods in rural and peri-urban areas. But as synthetic medicine prices rise and chicken infections become more resistant to chemical treatments, there is a need for sustainable, safe, and reasonably priced alternatives to managing poultry health. In African countries, indigenous herbal techniques have long been a mainstay of managing poultry health. Farmers used locally accessible plant materials, such as leaves, seeds, barks, roots, and fruits, to prevent and treat chicken illnesses prior to the development of commercial veterinary medicine. For generations, people have used herbs like tagiri (Christmas melon), miracle leaf (Kalanchoe pinnata), pawpaw leaves and seeds, rodo pepper, uziza leaves, beetroot, quaver leaf, cassava leaf, rice water, bay leaves, soursop leaves, aloe vera, neem leaves, ginger, garlic, and turmeric to increase poultry productivity, fight infections, and strengthen immunity. These herbal treatments are more than just veterinary treatments; they are also cultural information that is frequently transmitted orally from elders to younger generations. Their continuous use preserves indigenous tribes' cultural history while also promoting organic poultry husbandry.

1.2 Statement of the Problem

Indigenous herbal medicines have been used in chicken farming for a long time, but they confront obstacles that could endanger their acceptability and survival. These customs have been neglected and undervalued as a result of modernization and the commercialization of synthetic medications. Younger farmers frequently ignore herbal alternatives in favor of commercially developed vaccinations and antibiotics. Additionally, the absence of standardization and scientific proof of herbal preparation techniques lowers trust in their effectiveness and restricts their use in larger-scale operations.

There is also a growing concern about the overuse of synthetic drugs in poultry farming, which leads to drug residues in eggs and meat, antimicrobial resistance, and

environmental pollution. These challenges highlight the urgent need to explore and validate indigenous herbal remedies as safe, accessible, and sustainable solutions for organic poultry health.

1.3 Purpose of the Study

The primary objective of this research is to evaluate the effectiveness of traditional herbal remedies for the health of organic poultry and their contribution to cultural preservation. The study aims to record the local poultry farmers' preparation, use, and perceptions of these medicines' efficacy.

1.4 Significance of the Study

This study is significant for several reasons:

1. For Farmers: It encourages farmers to use sustainable and reasonably priced poultry health treatments by offering verifiable proof of traditional herbal practices.
2. For Researchers: It provides baseline qualitative data to validate herbal medicines and conduct more scientific study.
3. It draws attention to the necessity of policies that acknowledge and incorporate indigenous veterinarian expertise within national agricultural frameworks.
4. For Cultural Preservation: It promotes the transmission of indigenous wisdom from generation to generation and protects priceless cultural information.
5. For Public Health: It encourages consumer-friendly, residue-free poultry products.

1.5 Objectives of the Study

The specific objectives of this study are:

1. To identify common indigenous herbs used for poultry health in selected Nigerian communities.
2. To document preparation methods and applications of these herbs.
3. To assess farmers' perceptions of the efficacy of these herbal remedies.
4. To explore the cultural significance of herbal practices in poultry farming.
5. To recommend ways of integrating indigenous herbal knowledge into sustainable poultry health systems.

1.6 Research Questions

The study seeks to answer the following questions:

1. What indigenous herbs are commonly used for poultry health in the study areas?
2. How are these herbs prepared and administered?
3. What health conditions do these herbal remedies address?
4. How do farmers perceive the effectiveness of these herbal remedies?
5. What cultural values are associated with the use of indigenous herbs in poultry farming?
6. How can indigenous herbal practices be preserved and promoted in modern organic poultry production?

1.7 Scope of the Study

This study focuses on indigenous herbal remedies used by local poultry farmers in Kogi, Enugu, and Delta States, Nigeria. It covers herbs, leaves, seeds, and fruits that are locally sourced, their preparation methods, and their cultural significance. The research is limited to qualitative analysis and does not involve laboratory testing of herbal efficacy.

1.8 Limitations of the Study

The study is constrained by:

Lack of Laboratory Analysis: The findings rely solely on farmers' experiences and perceptions.

Geographic Scope: The study covers only three states, which may not represent all indigenous herbal practices in Nigeria.

Oral Tradition Bias: Some information may be subject to personal interpretation or memory lapses.

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature relevant to the use of indigenous herbal practices in poultry health management, with a particular focus on their efficacy, cultural relevance, and sustainability. It draws upon studies from Nigeria and other parts of Africa, as well as related global research on ethnoveterinary medicine.

2.2 Historical Background of Indigenous Herbal Practices

Before the arrival of Western veterinary medicine, African farmers relied on a rich tradition of ethnoveterinary knowledge for managing poultry and livestock health. This knowledge was passed down through generations by oral tradition, apprenticeship, and community observation. Indigenous herbal practices were grounded in deep ecological awareness, as farmers understood the healing properties of plants growing in their immediate environment.

Colonial influence and the spread of Western veterinary drugs in the 20th century gradually eroded the dominance of herbal practices. However, rural communities, especially those with limited access to veterinary services, continued to depend on these remedies because they were accessible, cost-effective, and culturally embedded.

2.3 Indigenous Veterinary Knowledge in African Poultry Farming

Indigenous veterinary knowledge (IVK) is an integral part of the African agricultural system. It involves the use of plant-based materials, minerals, and sometimes animal-derived substances for disease prevention and treatment. In poultry farming, IVK addresses common conditions such as Newcastle disease, coccidiosis, respiratory infections, fowl pox, parasitic infestations, and nutritional deficiencies.

Studies by Oduro-Osei et al. (2019) and Okoli et al. (2021) indicate that over 70% of rural poultry farmers in Nigeria use at least one form of herbal preparation in poultry management. These remedies are typically prepared by boiling, soaking, pounding, or grinding plant materials, and then administering them in drinking water, feed, or through direct application on affected areas.

2.4 Cultural Significance of Herbal Practices

The use of herbal remedies is not only a health management practice but also a cultural identity marker. In many communities, certain plants are associated with blessings, protection, and traditional rituals. Knowledge of these plants is considered an inherited family asset, and some farmers believe that using them brings both physical healing and spiritual safeguarding for their poultry.

In Igbo and Yoruba cultures, for example, herbal mixtures may be prepared during specific moon cycles or combined with prayers and incantations to enhance their perceived potency. This intertwining of culture, spirituality, and agriculture strengthens the bond between farmers and their indigenous heritage.

2.5 Documented Indigenous Herbal Plants for Poultry Health

Several herbs have been documented for their medicinal properties in poultry production:

1. Tagiri (Christmas Melon) – Cucumis metuliferus

Use: Prevents and manages Newcastle disease.

Preparation: Fruit is soaked in water for 24–48 hours; liquid is given to poultry.

2. Miracle Leaf – Kalanchoe pinnata

Use: Treats wounds, boosts immunity.

Preparation: Leaves are crushed and juice applied to wounds or mixed in water.

3. Pawpaw Leaves and Seeds – Carica papaya

Use: Anti-parasitic; controls intestinal worms.

Preparation: Fresh leaves are boiled or seeds ground and mixed with feed.

4. Rodo Pepper – Capsicum frutescens

Use: Improves appetite, prevents cold.

Preparation: Fresh pepper juice added to drinking water.

5. Uziza Leaves – Piper guineense

Use: Treats respiratory infections.

Preparation: Boiled leaves, with water given as a drink.

6. Beetroot – Beta vulgaris

Use: Blood enrichment, boosts egg production.

Preparation: Freshly grated beetroot added to feed.

7. Quaver Leaf – Local name varies

Use: Controls diarrhea and improves digestion.

Preparation: Boiled and given in water.

8. Cassava Leaf – Manihot esculenta

Use: Improves growth and immunity.

Preparation: Young leaves sun-dried, ground, and mixed in feed.

9. Rice Water – Byproduct of rice washing or boiling

Use: Enhances digestive health.

Preparation: Given fresh as drinking water.

10. Bay Leaves – Laurus nobilis

Use: Reduces stress, improves egg quality.

Preparation: Dried leaves boiled and water given to birds.

11. Soursop Leaves – Annona muricata

Use: Anti-parasitic and immunity booster.

Preparation: Leaves boiled; water given to poultry.

12. Aloe Vera – Aloe barbadensis miller

Use: Wound healing, treats fowl pox, immune booster.

Preparation: Gel extracted and applied or mixed in water.

13. Neem Leaves – Azadirachta indica

Use: Anti-bacterial, anti-parasitic, improves general health.

Preparation: Leaves boiled and decoction given.

14. Ginger – Zingiber officinale

Use: Improves digestion, treats respiratory infections.

Preparation: Fresh rhizomes crushed or powdered and added to feed or water.

15. Garlic – Allium sativum

Use: Antibiotic properties, boosts immunity, improves egg production.

Preparation: Crushed cloves soaked in water for 24 hours; given to poultry.

16. Turmeric – Curcuma longa

Use: Anti-inflammatory, improves yolk color and overall health.

Preparation: Powdered rhizome mixed in feed.

2.6 Scientific Evidence of Efficacy

Preliminary research indicates that numerous indigenous herbs have bioactive substances that are good for the health of chickens, even if many of them have not been thoroughly studied. For instance, garlic and ginger have been found to have immune-stimulating and antibacterial properties. Neem has potent antibacterial and antiparasitic qualities. Aloe vera lowers viral infections and speeds up wound healing. Standardization is still hampered by variations in dosage, administration techniques, and preparation.

2.7 Summary of Literature Review

Literature already in existence demonstrates the importance of indigenous herbal techniques in poultry husbandry, particularly in rural areas where access to commercial medications is restricted. Although their use has advantages for culture, the economy, and the environment, their wider adoption and incorporation into sustainable poultry health systems depend on additional scientific validation and appropriate documentation.

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a qualitative research design, which is suitable for exploring the lived experiences, practices, and perceptions of local poultry farmers regarding indigenous herbal remedies. The qualitative approach allows for an in-depth understanding of how these remedies are prepared, applied, and perceived in terms of effectiveness, as well as the cultural values attached to them.

The research design also enabled the collection of rich, descriptive data that could capture the nuances of local knowledge systems and their role in organic poultry health management.

3.2 Study Area

The study was conducted in selected communities across Kogi, Enugu, and Delta States, Nigeria. These states were chosen due to their strong tradition of indigenous herbal knowledge, active poultry farming activities, and the prevalence of farmers who engage in organic poultry health management. The communities are predominantly agrarian, with access to a variety of medicinal plants growing naturally in the environment.

3.3 Population of the Study

The population of the study consisted of local poultry farmers who actively use indigenous herbs to treat and prevent poultry diseases. This included both smallholder and medium-scale poultry farmers, most of whom engage in free-range or semi-intensive organic poultry production.

3.4 Sample and Sampling Technique

Participants with appropriate expertise and knowledge in using herbal treatments for poultry were chosen using a purposive sample technique. Eight farmers were chosen from Kogi State, six from Enugu State, and six from Delta State, for a total of twenty farmers. By doing this, it was made sure that the sample was sufficiently varied to reflect differences in the ways that people utilize herbs in various cultural contexts.

3.5 Instrument for Data Collection

The main instruments for data collection included:

1. Semi-structured Interviews: Conducted to allow farmers to freely share their experiences, preparation methods, and views on the efficacy of the herbs.
2. Focus Group Discussions (FGDs): Used to gather collective perspectives, promote discussion on preparation techniques, and identify common and unique herbs used.
3. Observation: Direct observation of herbal preparation, administration, and poultry responses to treatments provided insight into practical applications.

3.6 Method of Data Collection

Data were collected through face-to-face interactions over a period of six weeks. Interviews were conducted in the participants' local language or in English, depending on the preference of the farmer. Each interview lasted between 30–45 minutes, while FGDs lasted between 60–90 minutes. Field notes and audio recordings (with participants' consent) were taken for accuracy and completeness. Observations were documented using a checklist.

3.7 Method of Data Analysis

The study used thematic analysis to interpret the qualitative data. Audio recordings were transcribed verbatim, and field notes were organized. Data were coded according to emerging themes such as:

Types of herbs used.

Methods of preparation.

Dosage and administration.

Perceived efficacy.

Cultural significance.

Challenges in herbal use.

Recurring patterns were identified, and quotations from participants were included to enrich the analysis.

3.8 Trustworthiness of the Study

To ensure credibility, triangulation was applied by comparing data from interviews, FGDs, and observations. Member checking was conducted by sharing summaries with participants for validation. Dependability was ensured through detailed documentation of

all research steps, and transferability was enhanced by providing thick descriptions of the study context.

3.9 Ethical Considerations

Ethical approval was obtained from the relevant local research authorities. Informed consent was secured from all participants, and their anonymity was preserved by using pseudonyms. Participation was voluntary, and respondents could withdraw at any point without consequence.

4.0 DATA PRESENTATION, ANALYSIS, AND DISCUSSION

4.1 Introduction

This chapter presents the findings from interviews, focus group discussions, and observations conducted with local poultry farmers in Kogi, Enugu, and Anambra States. The data are presented thematically, reflecting the common herbs identified, their preparation methods, uses in poultry health management, cultural significance, and perceived efficacy. The findings are discussed in relation to existing literature.

4.2 Common Indigenous Herbs Used in Poultry Farming

Farmers identified a variety of herbs, seeds, fruits, and plant parts that they commonly use for disease prevention, treatment, and general health improvement in poultry. Many of these plants are locally available, inexpensive, and culturally accepted.

Table 4.1 below summarises the herbs mentioned and their common uses:

Herb/Plant	Local Name(s)	Part Used	Primary Use in Poultry
Tagiri (Christmas melon)	Tagiri	Fruit	Prevention of Newcastle disease; general immune booster.
Miracle Leaf (Bryophyllum pinnatum)	Hospital Too Far	Leaf	Wound healing, respiratory relief, and general vitality.

Pawpaw Leaves and Seeds	Pawpaw	Leaves & seeds	Deworming, improving digestion, appetite stimulation.
Rodo Pepper	Ata rodo	Fruit	Anti-parasitic, respiratory stimulation, appetite enhancement.
Uziza	Uziza	Leaf & seed	Anti-bacterial, respiratory aid, and warmth in cold weather.
Aloe Vera	Aloe	Leaf gel	Treatment of wounds, pox lesions, and digestive health.
Neem Leaves	Dogoyaro	Leaf	Anti-parasitic, immune booster, and natural disinfectant.
Ginger	**Citta**	Rhizome	Enhances appetite, anti-inflammatory, anti-parasitic.
Garlic	**Ayuu**	Bulb	Immune booster, anti-parasitic, and anti-bacterial.
Bitter Leaf	Onugbu	Leaf	Improves appetite, aids digestion, anti-bacterial.
Scent Leaf	Nchuanwu	Leaf	Anti-bacterial, respiratory health, and flavoring.
Moringa	Zogale	Leaf	Rich in vitamins, improves egg production, immune booster.
Basil Leaf	Ntong	Leaf	Anti-inflammatory, egg production enhancer.

Tumeric	Ata Ile Pupa	Rhizome	Anti-inflammatory, egg yolk color enhancement.
Beetroot	Beet	Root	Improves blood circulation, vitality, and egg yolk color.
Guaver Leaf	—	Leaf	Anti-bacterial, immune booster, digestive aid.
Cassava Leaves	—	Leaf	Protein supplement, growth enhancement (used in moderation).
Rice Water	—	Residual water	Energy source, aids digestion, mild electrolyte replacement.
Bay Leaves	—	Leaf	Anti-bacterial, stress relief, and flavor enhancement.
Soursop Leaves	Graviola	Leaf	Anti-parasitic, immune support, and stress reduction.
Lemongrass	—	Leaf	Anti-microbial, stress relief, digestive health.
African Basil	Efirin	Leaf	Anti-microbial, respiratory aid, and egg production.
Pepper Soup Leaf (Tetrapleura tetraptera)	Aidan	Pod	Immune booster, appetite enhancer, anti-parasitic.
Gongronema latifolium	Utazi	Leaf	Anti-bacterial, appetite stimulant, and detoxification

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4.3 Preparation and Administration Methods

From the interviews and FGDs, farmers use the herbs in various forms:

1. Fresh extract – leaves, roots, or fruits are squeezed, pounded, or blended, and the juice is mixed with drinking water.
2. Dried and powdered – herbs are dried under shade, ground into powder, and mixed into feed.
3. Boiled decoction – parts are boiled, and the water is given as a medicinal drink.
4. Direct feeding – fresh leaves or chopped roots are given directly to poultry.

"We pluck the pawpaw leaves, wash them well, pound them, and squeeze the juice into the chickens' water. It clears worms and makes them eat well." – Female Farmer, Enugu State

4.4 Perceived Efficacy of Indigenous Herbs

Farmers unanimously reported that these remedies were effective in preventing common poultry diseases such as Newcastle disease, coccidiosis, respiratory infections, and parasitic infestations. Some herbs were also said to improve egg production and quality.

"Since I started adding moringa and bitter leaf to their feed, my hens lay more eggs, and the shells are stronger." – Male Farmer, Kogi State

This aligns with literature indicating that moringa and bitter leaf are rich in essential vitamins and minerals that enhance poultry productivity.

4.5 Cultural Significance and Knowledge Transfer

The use of indigenous herbs is not just a farming practice; it is part of cultural heritage. Knowledge is often passed down from older farmers to younger generations through informal teaching and observation.

"My mother used neem leaves for both humans and chickens. I still do the same today because it works and costs nothing." – Female Farmer, Anambra State

4.6 Challenges in Herbal Use

While effective, herbal use faces several challenges:

- Lack of standardized dosages.
- Seasonal unavailability of some plants.
- Limited scientific validation for certain herbs.

- Risk of overdose if not used carefully.

4.7 Discussion

The findings confirm that indigenous herbal remedies remain a vital resource in organic poultry farming in rural Nigeria. Their affordability, accessibility, and cultural acceptance make them indispensable to smallholder farmers. However, there is a need for further research on dosage standardization and integration with modern veterinary practices.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study investigated the role of indigenous herbal practices in promoting organic poultry health and preserving cultural continuity among smallholder farmers in Nigeria. The qualitative approach allowed for an in-depth exploration of farmers' experiences, beliefs, and methods. Data were gathered from interviews, focus group discussions, and direct observation in selected farming communities.

The findings revealed that:

1. Indigenous herbs are widely trusted and used — Herbs such as tagiri (Christmas melon), miracle leaf, pawpaw leaves and seeds, rodo pepper, uziza, beetroot, quaver leaf, cassava leaf, rice water, bay leaves, soursop leaves, aloe vera, ginger, garlic, neem leaves, turmeric, bitter leaf, scent leaf, lemongrass, and moringa are frequently utilized in poultry care.

2. Applications are diverse and ailment-specific — Farmers use herbs for various purposes:

Disease prevention (e.g., neem leaves, garlic, turmeric for boosting immunity).

Treatment (e.g., tagiri for Newcastle disease, pawpaw seeds for worm expulsion, rodo pepper for respiratory stimulation).

Productivity enhancement (e.g., moringa for increased egg production, beetroot for improved blood health).

3. Preparation methods vary across communities — Herbs are prepared as decoctions, infusions, powders, or administered fresh, often in combination for synergistic effects.

4. Cultural continuity is reinforced — Knowledge of herbal remedies is often passed down orally from elders to younger farmers, creating a link between agricultural practice and cultural heritage.

5. Challenges remain — Limited scientific validation, lack of dosage standardization, seasonal unavailability of some herbs, and skepticism from some modern veterinarians remain major obstacles to wider adoption.

5.2 Conclusion

Indigenous herbal practices play a crucial role in the health management of organic poultry in Nigeria. They are affordable, eco-friendly, and rooted in cultural traditions that have stood the test of time. The herbs examined in this study demonstrate diverse pharmacological properties that contribute to poultry wellness, reduce dependence on synthetic drugs, and promote sustainable farming.

Furthermore, the cultural aspect of these practices cannot be overlooked. By maintaining indigenous herbal knowledge, communities not only preserve their heritage but also contribute to biodiversity conservation and rural resilience.

5.3 Recommendations

Based on the findings, the following recommendations are made:

1. Scientific Validation and Documentation

Research institutions should collaborate with local farmers to scientifically test, validate, and document herbal remedies, including preparation methods and safe dosages.

2. Training and Capacity Building

Organize farmer workshops to share best practices on herbal use, preparation, preservation, and storage.

Encourage exchange programs between farming communities to enhance knowledge transfer.

3. Integration into Veterinary Extension Services

Government and NGOs should integrate indigenous herbal knowledge into livestock extension programs, providing a formal platform for its promotion.

4. Conservation of Medicinal Plants

Communities should establish herbal gardens to ensure the year-round availability of key plants, thereby reducing the problem of seasonal scarcity.

5. Policy Support

The Ministry of Agriculture should develop policies that recognize indigenous veterinary practices as part of the national livestock health system.

6. Further Research

Encourage postgraduate studies focusing on the pharmacological analysis of under-researched herbs like quaver leaf, rice water, and bay leaves in poultry care.

5.4 Suggestions for Further Studies

Given the scope of this research, future studies could:

Compare the efficacy of indigenous herbs with conventional veterinary drugs in controlled trials.

Explore the economic impact of herbal poultry health management on smallholder farmer incomes.

Investigate herbal remedy use in other livestock sectors such as goats, sheep, and cattle.

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Appendix

Common Indigenous Herbs, Leaves, Fruits, and Natural Remedies for Poultry Health

Herb / Plant	Local Name	Part Used	Primary Uses in Poultry Health
Aloe vera	Aloevera	Leaves / Gel	Treats wounds, boosts immunity, aids digestion, prevents infections
Tagiri (Christmas melon)	Tagiri	Fruit	Used for Newcastle disease prevention and treatment
Pawpaw	Pawpaw	Leaves, Seeds, Unripe Fruit	Controls coccidiosis, aids digestion, acts as natural dewormer
Miracle leaf	Hospital Too Far	Leaves	Wound healing, boosts immunity, relieves respiratory stress
Uziza	Uziza	Leaves / Seeds	Improves digestion, acts as natural antibacterial
Rodo pepper	Rodo	Fruit	Improves appetite, controls internal parasites
Ginger	Ginger	Rhizome	Improves blood circulation, boosts egg production, fights bacterial infections
Garlic	Garlic	Bulbs	Boosts immunity, natural antibiotic, controls respiratory diseases
Turmeric	Turmeric	Rhizome	Anti-inflammatory, improves liver function, enhances egg yolk colour
Neem	Dogoyaro	Leaves	Controls ectoparasites, coccidiosis, and boosts immunity
Basil	Scent Leaf	Leaves	Improves digestion, controls respiratory infections
Bitter leaf	Onugbu	Leaves	Acts as natural antibiotic, controls diarrhoea
Moringa	Moringa	Leaves / Seeds	Nutrient booster, improves growth, increases egg production
Bay leaves	Bay Leaf	Leaves	Improves digestion, controls respiratory ailments
Beetroot	Beetroot	Root	Improves blood quality, boosts immunity
Cassava leaf	Cassava	Leaves	Rich in protein, enhances growth in broilers

Rice water	Rice water	Water from boiled rice	Improves digestion, soothes gut lining
Quaver leaf	—	Leaves	Controls intestinal parasites, improves digestion
Soursop leaf	Soursop	Leaves	Anti-parasitic, boosts immunity, controls oxidative stress
Lemongrass	Lemon grass	Leaves	Improves appetite, controls respiratory disease
Mango leaves	Mango	Leaves	Improves digestion, controls bacterial infections
Guava leaves	Guava	Leaves	Treats diarrhoea, boosts immunity
Basil seeds	—	Seeds	Soothes gut, reduces heat stress
Cinnamon	—	Bark	Antibacterial, improves digestion, boosts egg laying
African nutmeg	Ehuru	Seed	Improves digestion, reduces gut infections
Thyme	Thyme	Leaves	Antibacterial, improves feed conversion
Curry leaves	Curry leaf	Leaves	Boosts appetite, improves growth
Pepperfruit	Mmimi	Fruit	Controls parasites, stimulates appetite
Waterleaf	Waterleaf	Leaves	Boosts nutrient intake, reduces heat stress
Okra	Okra	Pods	Improves digestion, soothes gut lining
Tamarind	Tamarind	Pulp	Improves digestion, natural laxative
Lemon	Lemon	Juice / Peel	Boosts immunity, aids digestion, antibacterial
Orange peel	Orange	Peel	Antioxidant, improves gut health
African star apple	Agbalumo	Bark / Leaf	Controls diarrhoea, boosts immunity.