

Translated Title: Recycling Egg and Snail Shells to Make Poultry Feed Cheaper

Original Title: Farmers' Perceptions and Willingness to Adopt Egg and Snail Shells as Alternative Calcium Sources

Abstract (Translated):

This study assessed poultry farmers' willingness in Ghana's Western Region to use egg and snail shells as affordable calcium sources in poultry feed. Calcium is essential for strong eggshells and bird health, but traditional sources like oyster shells and limestone are costly. Using a multistage sampling method, data were collected from 284 poultry farmers through structured interviews. Descriptive statistics and regression analysis revealed that 80.28% of farmers were willing to use eggshells, while 65.49% favored snail shells. Education, farm size, access to loans, and extension services significantly influenced adoption. The findings demonstrate the potential of these alternatives to reduce feed costs by up to 20%, offering a sustainable and cost-effective solution.

Key Takeaways:

- Eggshells and snail shells offer a cheaper and sustainable alternative to traditional calcium sources.
- Over 79% of farmers were aware of the benefits of eggshells, while 62% recognized the potential of snail shells.
- Adoption of these alternatives could reduce feed costs by up to 20%.

Gap Addressed:

High feed costs are a major barrier to growth in Ghana's poultry industry, making it hard for farmers to compete with imported products. This study provides evidence for using local, affordable materials like egg and snail shells to lower costs.

Sector/Industry Focus:

This research benefits poultry farmers, feed manufacturers, and agricultural extension programs focused on sustainability. It also contributes to the circular economy by recycling waste materials to reduce environmental pollution.

Potential Uptake or Practical Application:

- Poultry farmers can collect and crush eggshells and snail shells to mix into feed, reducing reliance on costly limestone and oyster shells.
- Feed manufacturers can explore processing these materials into commercial feed additives.

Customer Point of View:

- **User:** Poultry farmers and feed producers.
- **Need:** Affordable calcium sources to reduce production costs.
- **Market Insight:** Farmers are eager for cost-effective solutions that do not compromise poultry health or productivity.

Key Recommendations:

- Develop training programs to educate farmers on safe use of eggshells and snail shells in feed.
- Provide subsidies or credit access to help farmers invest in processing equipment.
- Encourage government and private sector collaboration to support adoption through policy incentives.

This approach can significantly lower feed costs, enhance sustainability, and promote the efficient use of local resources.