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# Unlocking the Power of Soybean:

## Knowledge as a Catalyst for Food System Transformation

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Soybean is more than a cash crop—it's a catalyst for improving nutrition, enhancing livelihoods, and building climate-resilient agriculture in Ghana. But unlocking the crop's full potential depends on what smallholder farmers know, believe, and do. A recent field study across Ghana's northern regions assessed farmers' knowledge, perceptions, and practices related to improved soybean cultivation. The findings offer timely insights for policymakers, development partners, and value chain actors committed to food systems transformation.



### Key Insights: Knowledge Gains and Persistent Gaps

4.9%



#### Improved Varieties and Disease Prevention

Only 4.9% of soybean farmers could correctly identify Quarshie as a non-improved soybean variety—indicating confusion over seed types.

50cm x 5cm



#### Inoculation and Agronomic Spacing

A majority of farmers still wrongly believed that 50cm x 5cm was the recommended plant spacing, instead of the correct 75cm x 10cm—revealing a critical agronomic gap

~20%



#### Weeding and Pest Management

Only ~20% of the farmers knew that first weeding should be done two weeks after planting, highlighting poor awareness of early crop care.





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## Farmer Attitudes: Progress and Pressure Points

95.6%



### Willingness to Pay for Quality Inputs

95.6% were willing to pay more if it resulted in better yields—signalling readiness for adoption when returns are clear.

60.6%



### Shared Climate Responsibility

A growing number of farmers (60.6%) saw climate change as a shared responsibility among all stakeholders

74.9%



### Agronomic Beliefs Shifting

Most respondents (74.9%) rejected the myth that broadcasting produces higher yields than row planting—indicating improved understanding of good planting practices.



A majority also understood the soil fertility benefits of intercropping, and the non-degradative effects of minimum tillage.

## Gaps in Protective Practices and Gender Access

Despite gains in technical knowledge, behavioural gaps remain:

54.2%

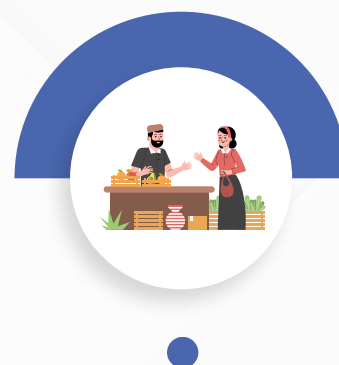


54.2% of farmers still believed that protective equipment is not required when spraying pesticides—a modest improvement, but still risky.

64%



64% of women reported difficulty accessing production-related information and training, highlighting persistent gender disparities in extension delivery.



Relationships with institutional buyers are still viewed with scepticism by many farmers, though trust is gradually improving.



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## Implications for Ghana's Food Systems

The dramatic improvements in awareness particularly on seed treatment, disease identification, and pest control show that information access drives agronomic success. Expanding radio extension programs can cost-effectively bridge rural knowledge gaps at scale.



## Input Affordability Must Be Matched with Accessibility

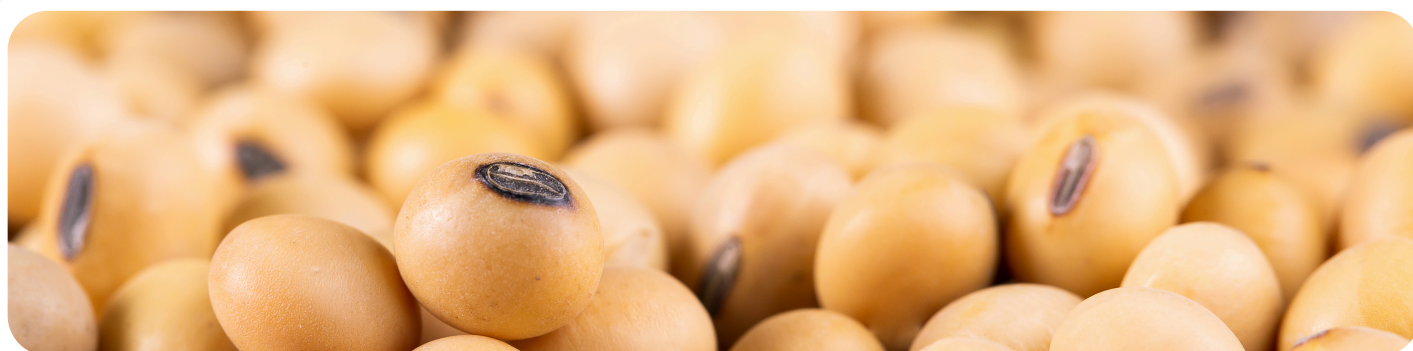
While farmers are willing to invest in improved seeds and fertilizers, cost remains a barrier. To strengthen food systems:

- Subsidized input schemes or input credit programs must be scaled.
- Linkages to trusted agro-dealers must be formalized.
- Last-mile delivery solutions can reduce rural input scarcity.

## Gender-Sensitive Extension is Essential

With women reporting lower access to training, Ghana risks underutilizing a crucial segment of its agricultural workforce. Policies must:

- Promote gender-balanced radio programming and on-farm demos.
- Support female-led farmer groups and mentorship networks.
- Integrate gender tracking into all agricultural interventions.







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## Food Safety Depends on Farmer Safety

Low adoption of protective gear during pesticide use threatens both farmer health and food safety. To close this gap:

- Promote safe pesticide handling campaigns.
- Enforce regulation on chemical use and PPE availability.
- Integrate health topics into agricultural training modules.

## Market Linkages Enhance Livelihoods and Resilience

Scepticism toward institutional buyers signals a trust deficit. Building inclusive market systems through aggregation centres, digital platforms, and fair contracts can improve farmer income stability and strengthen the broader value chain.

## Conclusion

The soybean value chain holds massive promise for Ghana but realizing this promise depends on equipping farmers with the right knowledge, reliable inputs, and market access. The improvements in farmer awareness, attitudes, and willingness to invest are encouraging. But to build a resilient and inclusive food system, stakeholders must address the persistent knowledge gaps, gender barriers, and systemic inefficiencies.

If Ghana can align extension, input distribution, and market access around the needs of its soybean farmers particularly women and smallholders it will take a major step toward food systems transformation.

*Ready to collaborate on strengthening Ghana's food systems?*

