AFRICAN CENTRE FOR BIODIVERSITY

EVERYDAY EXPOSURE: GLYPHOSATE IN MAIZE, WHEAT, BREAD, AND BABY FOOD

Findings from independent testing of staple foods in South Africa (SA)

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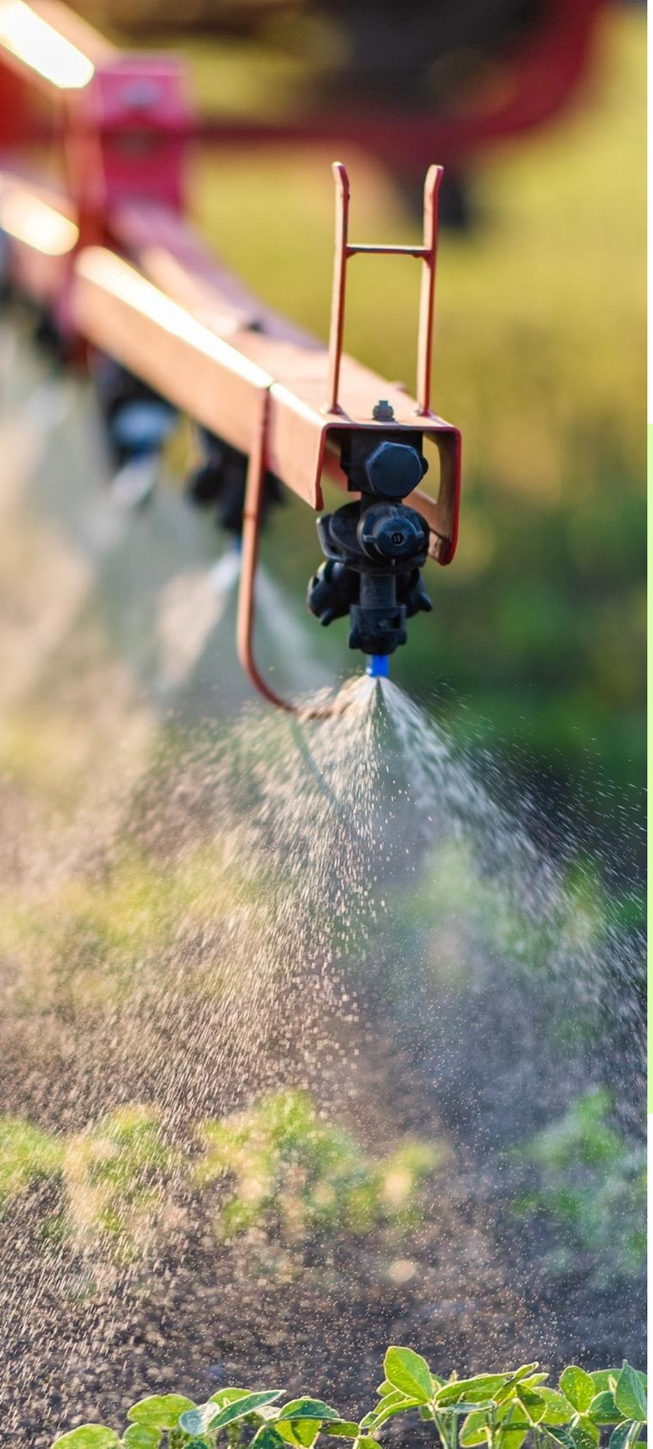
Why this study was done

- To generate independent evidence of pesticide residues in staple foods
- To assess real-world dietary exposure, including for children
- To evaluate whether current regulatory limits adequately protect health



Glyphosate: key background

What is glyphosate?

- World’s most widely used herbicide
- Most-used herbicide in SA
- Widely applied to herbicide-tolerant genetically modified (GM) maize

Why this matters

- Glyphosate is systemic
- Residues are inside the plant, not on the surface
- Washing or processing does not remove it

AMPA: the hidden part of exposure

What is aminomethylphosphonic acid (AMPA)?

- Primary breakdown product of glyphosate
- More persistent than glyphosate
- Has its own toxicity profile

Regulatory gap

- No specific maximum residue limits (MRL) in SA
- Default limit: 0.01 mg/kg

Products sampled (January 2026)

- Impala Maize Meal (GM)
- Snowflake Wheat Flour
- Sasko White Bread
- Cerelac Regular Wheat (baby cereal)

Methods

- Purchased from major supermarkets
- Tested by a South African National Accreditation System (SANAS)-accredited lab
- Liquid chromatography-tandem mass spectrometry (LC MS/MS) residue analysis

Results overview

Key findings

- Glyphosate detected in 3 of 4 products
- AMPA detected in 2 of 4 products
- Two exceedances of the default MRL

GM maize meal: a direct link

Impala Maize Meal

- Glyphosate detected
- AMPA detected
- AMPA exceeds the default MRL

Significance

- Product labelled as GM
- Linked to herbicide-tolerant cropping systems

Wheat products: regulatory blind spots

Snowflake Wheat Flour

- Glyphosate exceeds SA default MRL
- No specific glyphosate MRL for wheat in SA

Likely source

- Pre-harvest desiccation

Bread and baby food

Sasko White Bread

- Trace glyphosate and AMPA detected
- Residues survive milling and baking

Cerelac baby cereal

- Glyphosate detected
- Exposes infants and young children

Why MRLs don’t equal safety

MRLs are not health limits

- Designed for trade and regulatory compliance
- Do not account for:
  - Chronic exposure
  - Multiple residues
  - Vulnerable populations

AMPA problem

- Not properly regulated at all

Health implications

Research links glyphosate and AMPA to:

- Gut microbiome disruption
- Neurodevelopmental effects
- Endocrine disruption
- Reduced nutritional quality of food

Key concern

- Effects observed at levels regulators consider acceptable

Conclusion and recommendation

What this study shows

- Routine exposure through staple foods
- The regulatory framework fails to prevent exposure
- Vulnerable populations are not protected

ACB calls for

- Deregistration of glyphosate
- A national ban on its use, import, and sale

THANK YOU

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