About APHLIS

The African Post Harvest Losses Information System (APHLIS) is the leading international effort to collect, synthesize and distribute data on postharvest losses across sub-Saharan Africa.

- APHLIS produces estimates of the postharvest losses of staple food crops across sub-Saharan Africa down to province level, including the nutritional and financial dimensions of loss.
- APHLIS combines academic research with on-the-ground data collection by a network of experts to help target efforts to reduce the environmental, economic and social impacts of food loss.
- All estimates are freely available on the APHLIS website.

Peer-reviewed literature

- Systematically reviewed
- Source of APHLIS loss figures

PHL profiles

- Combine loss figures per:
  - → crop
  - → climate type
  - → value-chain step
- Reference underlying literature

Seasonal Factors

- Crop production data
- Environmental conditions affecting loss
  (e.g. weather, pest incidence)
- Postharvest activities
  (e.g. % marketed, % stored, storage duration)

Expert Network

- Covers 28 African countries
- Provides seasonal factors
- Represents APHLIS

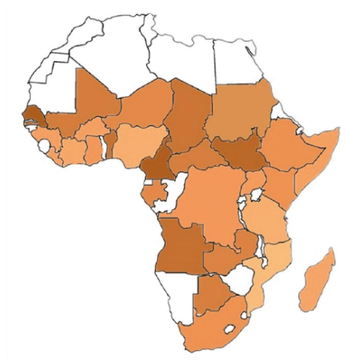
Loss estimates

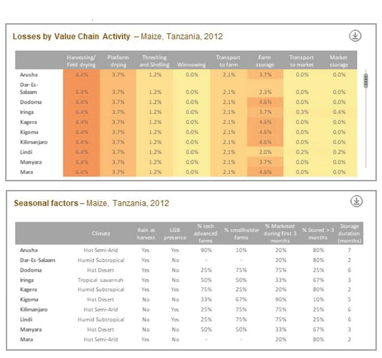
- Weight loss data for 38 African countries
- 9 cereal crops - wheat, maize, rice, sorghum, barley, rye, oats, millets, fonio, teff
- Available for 2003-2016
- The APHLIS+ project will:
  - → expand number of crops
  - → provide financial loss estimates
  - → provide nutritional loss estimates

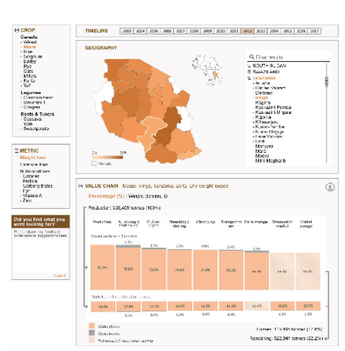
PHL calculator

- Use your own loss figures or seasonal factors to:
  - → improve accuracy of APHLIS estimates
  - → compare seasonal scenarios

Find APHLIS data and research at www.aphlis.net







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BILL & MELINDA GATES foundation

Implementing partners

UNIVERSITY of GREENWICH

NRI | Natural Resources Institute

Joint Research Centre JRC

Contact us

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Broader crop coverage

Historically, APHLIS has focused on postharvest losses of eight cereal crops – **maize, sorghum, millet, wheat, barley, rice, teff and fonio**.

Now, APHLIS is expanding the range of crops covered by the system to include legumes (**common bean, groundnut, and cowpea**) and roots & tubers (**cassava and sweetpotato**).

We are developing new methodologies for assessing the losses of each new crop as well as adopting better modelling approaches and expanding our network of experts.

As a result, we are in an excellent position to provide decision-makers in African countries with the data they need to meet their postharvest loss policy commitments.

Nutritional losses

The expanded APHLIS+ project has developed an innovative approach to determine the nutritional implications of postharvest losses.

APHLIS postharvest loss figures have been combined with food composition data to determine the quantities of macronutrients (**carbohydrates, proteins, fats**), **calories** and micronutrients (incl. **iron, zinc, calcium, vitamin A and C**) lost annually due to postharvest losses in each sub-Saharan African country.

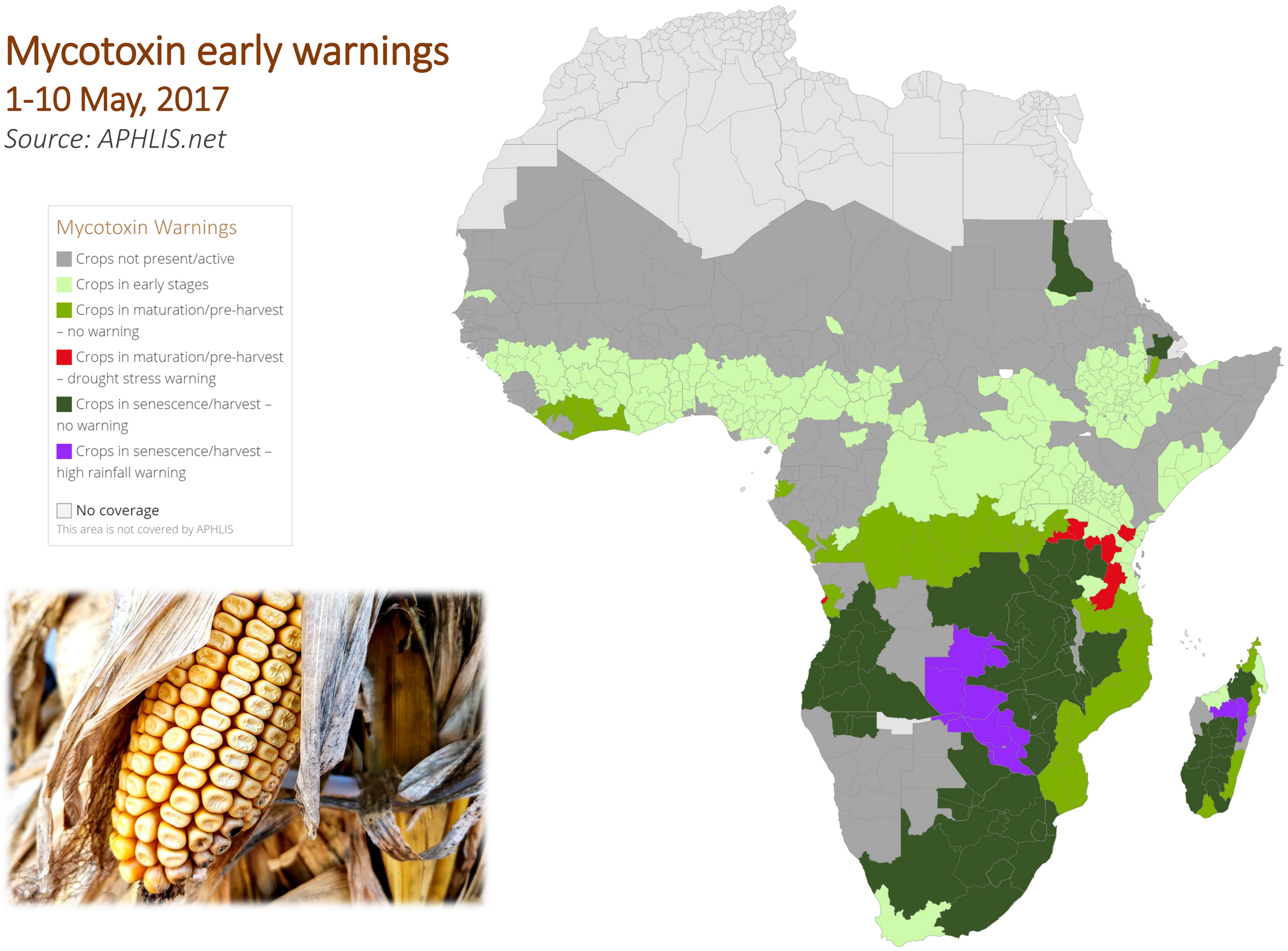
Using annual recommended nutrient intake datasets, the **human impact** of these postharvest losses of nutrients is then calculated, for each country and **for specific focal groups** (e.g. women of reproductive age) within each country.

APHLIS now provides estimates of the nutritional value of postharvest losses and their human impact across sub-Saharan Africa

Mycotoxin early warnings

Mycotoxins are poisons produced by moulds, such as *Aspergillus flavus*, which grow on cereals during both pre- and post-harvest stages under favourable climatic conditions including high temperatures and humidity.

Mycotoxins are carcinogens and exposure poses serious threats to both human and animal health. Mycotoxins also impact international trade, with African economies losing US $450 million every year from barred exports.



APHLIS monitors climate conditions during pre- and post- harvest stages that favour mycotoxin development and provides near real time ten-day agro-climatic risk warning maps, available on request.

Improving the accuracy of loss estimates

APHLIS provides annual postharvest loss estimates for sub-Saharan African countries, at the first administrative level (i.e. province, state). To do this, APHLIS depends on accurate local data to contextualise its loss estimates.

APHLIS collects province-level data for each country and crop combination it covers, including:

- Production data (at first admin level)
- Rainfall during harvest & drying
- Adoption of postharvest technologies
- Typical storage duration
- Marketing practices

Current sources include:

- National postharvest experts (APHLIS expert network)
- National Statistics Offices, Ministry of Agriculture staff, other government agencies
- Secondary sources (e.g. FAO CountryStat, Postharvest surveys, OpenDataforAfrica)

Please share your data!

Collecting data at this scale is a challenge and APHLIS is actively pursuing partnerships with organizations that can provide this data.

Improved local data will increase the accuracy of the estimates, allowing you to better:

- Target postharvest loss reduction interventions
- Predict and monitor the impact of postharvest interventions

All data sources are cited, and APHLIS loss estimates are openly available on www.aphlis.net

Contact us at info@aphlis.net

APHLIS expert network meeting, Kigali 2018

APHLIS requires seasonal data at first administrative level (i.e. province, state) to generate accurate postharvest loss estimates – share your data to improve postharvest loss estimates for your country.