Fake Seed in Africa: Problem and Solutions

In February 2018, seed inspectors from Uganda’s Ministry of Agriculture, Animal Industry and Fisheries raided a seed company packaging sorghum seed for export to the World Food Programme operating in South Sudan. Officials shut down the premises and seized 30 tons of sorghum seed that had not been tested by the government. To the south, in Malawi, the Seed Services Unit routinely confiscates seed packages that have forged seed quality certificates.

The above examples are by no means isolated incidents. Un-tested and poor-quality seed that is deliberately sold to unsuspecting buyers is commonly referred to as fake seed or counterfeit seed. Most African countries have laws and regulations to ensure – at least on paper - that only seed that has been inspected, tested, and certified by the relevant authority is sold to farmers. However, fake seed sellers deliberately bypass regulations, with serious negative consequences to smallholder farmers, who make up the bulk of buyers: poor-quality seeds have lower than expected yields, which can lead to diminished farm incomes, the risk of food insecurity, and, importantly, a lack of trust in seeds available on the market as farmers do not know which brands/varieties are safe to purchase in subsequent planting seasons. In the most serious of cases, fake seeds can lead to a lost harvest, something many resource-poor farmers cannot weather.

The examples of Malawi and Uganda are not isolated; virtually all countries surveyed by The African Seed Access Index (TASAI) report similar cases. Our research has uncovered that fake seed exists in many forms – for example, as grain packaged in bags and sold as seed or as untested seed sold with forged quality certificates/labels.

When it comes to the culprits, seed producers, seed companies, and seed sellers/agro-dealers have been found to trade in counterfeit seeds, making it hard to track the illicit product.

Fake seeds are lucrative

The main driver of counterfeit seeds is the potential for economic gain: selling a low-quality seed (e.g., grain), whose manufacturing costs a fraction of that of high-quality (e.g., improved) seeds can yield enormous profits. For instance, in Kenya, hybrid maize costs 5.7 times the price of maize grain, which makes selling grain as genuine hybrid seed a lucrative, if illegal, option. The corresponding ratio is between 3 to 4 times in Uganda and Malawi. In this sense, the seed industry is no different from pharmaceuticals or manufacturing, where ‘fake’ products are sold, often with deleterious consequences to the consumer.

A systemic problem

In most African countries, the weakest link in the system is the government’s seed regulatory agency, which is mandated to ensure that all seed quality control procedures are followed. However, in most cases the agencies are under-funded, leading to a shortage of staff and ill-equipped seed laboratories, with the result that seed is released to the market and sold to farmers without adequate testing.

Not enough inspectors

When it comes to fighting counterfeit seeds, seed inspectors are a first line of defense in the “war”. Some countries have recognized the importance of this issue – for example, as of 2018, Kenya had 50 inspectors, Tanzania, 48, Malawi, 37, and Ghana, 32, with more in the pipeline. Others, such as Uganda, continue to lag behind: at present, Uganda has only eleven inspectors – a number far from adequate to conduct seasonal inspections of the hundreds of seed lots and agro-dealers and the more than 20 seed processing facilities, each season.
Dissatisfied seed companies

One of the 21 indicators tracked by TASAI asks seed companies to rate their government’s response to the problem of fake seeds. In most cases, companies report satisfaction ratings below 60%. At present the countries with the highest rating (72%) are Kenya and Rwanda. Kenya is particularly illustrative as it has recently pulled away from the pack. The current rating of 72% is a major leap from the last two rounds of data collection in 2014 (39%) and 2016 (50%). What accounts for Kenya’s success?

Combating fake seeds – innovative solutions

One answer to that question may be the use of security labels on seed packages, a recent innovation that has been most widely used in Kenya to date. The labels were launched in 2017 by the Kenya Plant Health Inspectorate Services (KEPHIS) and the Seed Trade Association of Kenya (STAK), in collaboration with the technology company MPedigree. The scratch labels affixed to the seed packs reveal a hidden unique 12-digit code. When the code is sent via mobile text message to a designated phone number, in a matter of seconds, the sender receives a response, confirming whether the seed in the package purchased has been tested by KEPHIS.

Early results indicate that the system is effective, as several fake seed sellers have been caught as a result of the verification process. That said, recent data shows that there is much room for improvement, as only 35% of the labels are being verified – in other words, nearly 2/3 of the packages sold with the labels are not being verified. This shows a lack of awareness among buyers, most of whom are smallholder farmers. Ideally, a buyer would scratch the label at the point of purchase, to confirm if the seed being bought has been tested. The merchant would serve as a witness if a package of untested seeds is found. STAK and KEPHIS are working to promote such practices, in the process increasing farmers’ awareness about the labels.

Another, more tried-and-tested, solution is to complement the government’s inspection services with private seed inspectors. The practice has been used successfully for years in South Africa, Zambia, and Zimbabwe. In Kenya the first batch of authorized seed inspectors were deployed in 2017. Similarly to Zimbabwe, in Kenya private inspectors are attached to registered seed companies, thus ensuring that the company strictly follows the required quality control measures before the seed is sold commercially. In fact, Zimbabwe’s seed regulator, the Seed Services Institute, requires businesses to have a trained inspector on staff as a precondition to registering the company.

In conclusion

Adherence to high quality standards must be a key thrust for national seed industries in Africa. At present, in many countries fake seeds undermine other efforts to ensure farmers’ access to quality seed. It is encouraging to see countries taking steps to find a comprehensive solution to the problem. Such efforts should be monitored, and, if successful, scaled up, as they will ensure that smallholder farmers access the best seed technologies available. Coupled with the necessary extension services, high-quality seeds will ensure improved financial stability and food security at the household and country levels.