KOAN
KENYA ORGANIC AGRICULTURE NETWORK

Policy Brief

Is Our Food Killing Us? : Policy options for withdrawing Toxic Chemicals Registered For Use in Kenya and Adopting Safer Alternatives

Background

From a study done by the Route to Food Initiative (RTFI) in 2019, out of the 230 active ingredients registered in Kenya, by the Pest Control Products Board (PCPB), only 134 are approved in Europe, 19 are not listed in the European database and 77 have been withdrawn from the European market or are heavily restricted in their use due to potential chronic health effects, environmental persistence, high toxicity towards fish or bees. From the PCPB records a total of 171 companies have registered 862 products in Kenya. Due to limited awareness and knowledge on usage of these pesticides, farmers do not use appropriate protective gear and rarely do they follow the right dosage or adhere to pre harvest intervals (PHIs).

Although there are alternatives to toxic pesticides available in the market, not many farmers, extension officers; agrovet dealers and consumers know about them. This can be attributed to ignorance, push by profit oriented agrochemicals companies, insistence of agriculture training and extension system to use agrochemicals as the only solution for pests among others. Kenya is at a point where the Non Communicable Diseases (NCDs) are continuously rising putting a huge economic burden on the health sector. Research has shown correlation between NCDs and high, unsafe use of pesticides in food crops.

In order to provide solutions and to enhance the process of withdrawing very pesticides from the market, Kenya Organic Agriculture Network (KOAN) has partnered with Route to Food Initiative to develop a database of alternative practices and safer products to address challenges that the registered toxic pesticides are used for. This database is useful to stakeholders in the agriculture sector who include but not limited to:

1. Farmers
2. Policy makers/ PCPB
3. County Government extension officers
4. NGOs and CBOs working with farmers
5. Agro vet dealers
6. Consumers

Availability of toxic pesticides in Muranga and Kirinyaga Counties

The partners undertook a rapid assessment survey in Muranga and Kirinyaga Counties between January and February 2020. The two Counties were selected for the following reasons:

1. Agriculture is the main economic activity in both counties. Farmers mainly grow horticultural produce for domestic and export markets.
2. The counties are among the highest producers of horticultural crops and therefore rely heavily on pesticides.
3. Both county governments have expressed interest in supporting the transition to sustainable agricultural practices. Murang'a County is subsidizing organic inputs. Kirinyaga County has included establishment of an organic city within its County

Integrated Development Plan (CIDP).

Methodology of the surveys

A household survey was done among a sample of 280 farmers; 140 from each of the County. Interviews were conducted among 20 Agrovet dealers and 20 extension staff working with either County Government or Non-Governmental organizations in both Kirinyaga and Muranga Counties. Telephone interviews and questionnaires were sent to companies selling inputs and scientists involved in research relating to agroecology or organic agriculture. Information was collected on pesticides, herbicides and fungicides used, target pests, diseases, weeds and crops applied.

Results / findings of the surveys

From the survey, 17 active ingredients in use by farmers in the two counties are among the 77 identified as banned in Europe but being used in Kenya. This represents 22% a significant proportion. These active ingredients were found in 23 brand names sold mostly for pest control. The pesticides were being used by 92 farmers with Carbosulfan and Fenitrothion being the ones which are mostly used. These pesticides have harmful effects to the environment, pollinators, aquatic life and can pose threat to the health of users and consumers of sprayed products. On the other hand, there are existing farm practices, biological products, organic pesticides and less toxic chemicals which are equally effective to the target pests and can be used as an alternative. This information has been presented in a database www.saferinputs.com.

Effects of The Toxic Chemicals On Health, Environment

For the registered products, 45 have been proved to be carcinogenic (cancer causing), 31 are mutagenic (affect the genetic makeup), 51 are endocrine disruptors (affect the hormonal system), 175 are neurotoxic (affect the nervous system) and 360 have effects on the reproduction system including and not limited to causing infertility. These pesticides have recorded environmental persistence are highly toxic towards aquatic ecosystem including fish. They are also toxic to pollinators such as bees and have been associated with reduced bee populations.

Database on Alternatives : Helping Farmers Transition To Safer Alternatives

In order to fill the gap, a database containing information on alternative and safer solutions sourced from multiple sources was developed. The database is found through the link www.saferinputs.com.

Framework of the SaferInputs database

The Database is based on the Integrated Pest Management (IPM) approach where for each toxic active ingredient identified, the target pests/diseases are identified. Then the following order of recommendations is proposed:

a) Good agricultural prevention practices are identified,

b) Alternative home made solutions are identified

c) Alternative Biocontrol and Biopesticide (Commercial) options are identified

Policy Interventions / Recommendations:

i) There is urgent need for better training of extension officers and increased budget allocation for extension services. Extension officers have a duty to primarily share sustainable agricultural practice. This principally should include the implementation of mitigation measures to prevent environmental and human health effects. IPM strategies should follow to substitute the toxic pesticides with biocontrol and biopesticides or even less toxic pesticides and ultimately agroecology principles (www.saferinputs.com)

ii) The Government needs to develop and implement a strategy to remove identified toxic pesticides from the market, recognizing that it can take several years for products to be completely unavailable through local shops and dealers;

iii) Those crops and pests on top of the priority list should be targeted first, as they require the most toxic pesticides and the highest number of withdrawn ones.

iv) Agrovet dealers should advise farmers on sustainable pest management practices to reduce the likelihood of negative impacts on human health and the environment (the principle of sustainability guides the needs of the present without compromising the needs of future generations).

v) Agrovet dealers should receive training on the registration status and the potential human health and environmental effects of the products they recommend, to be able to advise on proper mitigation measures to avoid these effects.

vi) There needs to be incentives in place for providing sustainable pest control solutions including biocontrol and biopesticides.

vii) There should be monitoring and sanctions for agrovet dealers selling unregistered products to farmers.

viii) All agrovet dealers should be formally registered by the PCPB. This would require all agrovet dealers to have basic qualification in agriculture, understanding of pesticides and registration by the Kenya Drugs and Poisons Board.

ix) The Government should implement control strategies to ensure the correct use of pesticides.

x) There should be frequent awareness campaigns about the dangers of misusing pesticides.

xi) There should be strict monitoring of all pesticides sold in the market.

xii) Higher budget and political will as well as more capacity for institutions like KEPHIS, KEBS and NEMA, to implement monitoring strategies of food and water, is needed. Monitoring should also include regular farm inspections to ensure that recommended mitigation measures are implemented.

xiii) Maximum Residue Level (MRL) standards should be adapted according to the Kenyan diet.

xiv) There is need to implement a national traceability system which places responsibility of MRLs to farmers.

xv) Farming systems need to be redesigned or adjusted based on the available knowledge on agro-ecology. Agro-ecological farming systems prevent pesticide exposure; enhance biodiversity; help to improve air, soil, and water quality; and mitigate climate change.

xvi) Farmers and policy-makers in county governments should be encouraged and supported in transitioning to and understanding agro-ecological practices like crop rotation, soil fertility management, push–pull technology, and crop selection adapted to local conditions.

xvii) Affirmative action should be implemented by both national and county governments as a way of motivating adoption of ecological organic practices. These measures can include trainings, direct payments, and market development for agro-ecological products, for example via public procurement.