Pesticide risk reduction

Pesticides play an important role in reducing crop losses. However, their misuse can have serious negative impacts on both human health and the environment. It is necessary to shift towards a more sustainable way of increasing food production, one that maintains high productivity while protecting farmers, consumers and ecosystems from the negative effects of pesticides. Risk reduction measures for pesticides have an important role to play.

What FAO does

FAO promotes Integrated Pest Management (IPM) as the preferred, ecologically based approach to growing healthy crops where pesticides are used only when needed. And where pesticides are necessary includes using the right product, in the right amount and at the right time, along with measures to limit exposure of people and the environment. FAO works with countries to build the capacity of smallholder farmers through Farmer Field School programmes, which include training on ecological pest management.

FAO, together with the World Health Organization (WHO), developed the International Code of Conduct on Pesticide Management. The Code serves as a framework for government regulators, the private sector, civil society and other stakeholders on the management of pesticides throughout their lifecycle. A series of policy and technical guidelines have been developed to facilitate its implementation. FAO works alongside governments to raise awareness and build capacities to implement the Code. This includes reducing the risks from stockpiles of obsolete pesticides through assisting countries in their disposal and more importantly in preventing further stockpiles from accumulating.

FAO and WHO collaborate in establishing pesticide standards that facilitate international trade including Maximum Residue Limits (MRLs) in food and feed crops and pesticide quality standards.

The Rotterdam Convention (RC) forms part of the global effort to share information on hazardous chemicals. The Secretariat is provided jointly by FAO and the United Nations Environment Programme (UNEP).

The RC is a multilateral environmental agreement that promotes cooperation between exporting and importing countries. It contributes to stronger social and environmental protection by raising awareness and encouraging countries to share responsibilities over the trade and use of dangerous chemicals.

The two main provisions of the RC are information exchange and the Prior Informed Consent (PIC) Procedure. The PIC procedure applies to all of the chemicals listed under the Convention, and empowers countries to make informed decisions on whether to agree to import these chemicals and to reject those substances that they cannot manage safely.
Pesticide risk reduction

Understanding the context

The increased intensification of agricultural production together with the effects of climate change have increased the pressure of pests and diseases on crops. Annual crop losses caused by insects, weeds and disease are estimated between 20 to 40 percent, similar to those of 50 years ago. Global pesticide use has expanded to about 3 billion tons per year. It is increasingly recognized that current levels of pesticide use are not sustainable and have considerable environmental and health costs.

A major effort is needed to mainstream sustainable pest management approaches and practices to build resilient crop production systems and to reduce reliance on pesticides. Furthermore, farmer education and regulatory control of pesticides need to be strengthened to address pesticide misuse.

FAO’s strategic framework directs efforts to increase sustainable agricultural production and its resilience to threats to achieve food security and improved livelihoods. Sound pesticide management contributes to sustainable crop production by reducing crop losses, promoting more efficient use of pesticides and reducing adverse effects on human health and the environment.

IPM integrates good agricultural and agronomic practices to produce healthy crops with the least possible disruption to agro-ecosystems. It includes increasing on-field biodiversity by using a wide diversity or plants through intercropping and crop rotation, enhancing natural pest control mechanisms (such as enhancing beneficial insects and organisms), and preserving and restoring soil fertility. Significant impacts have been achieved through FAO programmes on IPM and millions of farmers have been trained on IPM through Farmer Field Schools as a means to reduce risks from pesticides.

MORE INFORMATION
www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code