



Briefing note

October 2020



The Food and Agriculture Organization of the United Nations (FAO) is leading international efforts in the fight against hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information helping developing countries and countries in transition to modernize and improve agriculture, forestry and fisheries practices to achieve good nutrition for all. FAO Lebanon Programme is aligned with FAO's global Strategic Objectives. Lebanon was among the first countries to benefit from an FAO Country Office to strengthen the Organization's programmes on the ground. Established in 1977, the Office has sought to promote harmonious and sustainable development of the agricultural sector along with the national agricultural policy and in consultation with relevant ministerial departments.

Integrated pest management

Sector context



Integrated pest management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations, keep pesticides and other interventions to levels that are economically justified, and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of healthy crops with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

Managing plant pests and diseases and plant nutrition in Lebanon have always been highly dependent on the use of chemical pesticides and fertilizers. During the last 30 years and due to the absence of proper extension interventions from the public sector, the private sector took the lead in this field through the suppliers of agricultural inputs. Most of the farmers traditionally believe that increasing the quantity of chemical fertilizers will limitlessly increase their crops productivity. This was met with the willingness of sales representatives of agrochemical suppliers not to challenge such traditional beliefs by advising the farmers to follow a pre-set pesticides spraying and fertilizing programme for each crop, regardless of the actual need of the crop for fertilizers, of the confirmed presence of pests, and of the damage level. During the past ten years, the Ministry of Agriculture (MoA) made several attempts to introduce IPM solutions to deal with several crops and pests, namely the codling moth of apples, grapevine moth, tomato borer, olive fruit fly, and fruit flies, among others.

Challenges in Lebanon



The weak presence of the public sector and the complete dependence of the farmers on agricultural inputs suppliers for technical advice led to excessive and uncontrolled use of agrochemicals in pest control and crop nutrition.

As per the MoA Strategy 2010-2014 and work programme, many attempts by the MoA have been made to promote the use of IPM practices among farmers. However, procuring and distributing IPM solutions to farmers was interrupted by the unavailability of funds, the change in policies, and untimely procurement and distribution to farmers. Furthermore, many farmers did not undergo the necessary training and follow-up to properly use the promoted IPM technologies, to reap the most benefits, and to sustain the obtained results.



FAO's Strategic Objective 2 aims to make agriculture, forestry and fisheries more productive and sustainable. In addition, Strategic Objective 4 aims to enable inclusive and efficient agricultural and food systems in order to promote evidence-based policies and practices to support highly productive agricultural sectors. Since 2017, FAO in collaboration with the MoA and the Council for Development and Reconstruction and with the generous support from the World Bank and the Norwegian Government has been implementing two projects targeting potato farmers in the cazas of West-Bekaa, Zahle and Baalbek. The main objective of the two projects is to reduce the use of chemical fertilizers and pesticides in potato cultivation through rationalizing the use of agrochemicals. The projects have established numerous potato comparative pilot plots to compare between farmers' traditional practices and integrated crop management (ICM) practices. In every plot, two fields are planted side by side; one managed according to traditional farmer's practices, and one by a project facilitator using project validated ICM tactics. Throughout the potato-growing season, the plot facilitator follows the crop development and makes necessary changes at the level of irrigation, pest management and crop nutrition as needed. The facilitator keeps a record of all interventions made in both farmer and ICM plots, including quantities and types of pesticides and fertilizers used. At the end of the growing season, the yield of each field (farmer and ICM) is obtained and a comparison table is drawn. The results of the completed potato comparative pilot plots have proven that it is feasible to reduce the use of fertilizers by an average of 35 percent and at least 70 percent reduction in pesticide sprays compared to farmers. Farmers invited to field days to witness the results directly in the field have shown encouraging interest to reduce the use of fertilizers and pesticides. Many of them have already adopted soil sampling and analysis as a basis to estimate the needed fertilizers quantities they should use for their crops. Farmers have now an alternative source of reliable agricultural extension information composed of MoA facilitators and FAO's project technical team. Farmers started monitoring pest incidence and damage through field visits to base their decisions about intervention frequency and strategy, on actual field data. The reduction in the use of agrochemicals will directly reduce the negative effects on public health, biodiversity and the environment caused by years of frenzied use of chemical pesticides and fertilizers.

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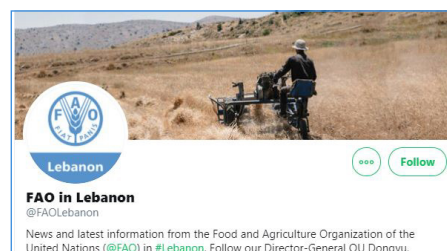


[Training potato farmers on environmentally sustainable Integrated Crop Production Practices](#)



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Announcement



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