CONTENTS & MODULES

IPM PRINCIPLE 1	Measures for prevention and/or suppression of harmful organisms

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WHAT IS…	Measures for prevention and/or suppression of harmful organisms are those cultural, mechanical, biological etc. measures, conducted over time and space, which will reduce the frequency and intensity of pest outbreaks and will lead to robust cropping systems.
WHY	IPM requires a holistic approach. In IPM there is not only one best control method but farmers should benefit from all available and possible control tools and implement the pest management strategy in a multi-year and multi-field context.
HOW	Among the options available, the prevention and/or suppression of harmful organisms should be achieved or supported especially by: ► Crop rotation ► Use of adequate cultivation techniques (for example, stale seedbeds, appropriate sowing dates and plant densities, under-sowing, conservation tillage, pruning and direct sowing) ► Use, where appropriate, of resistant/tolerant cultivars and standard/certified seed and planting material ► Use of balanced fertilisation, liming and irrigation/drainage practices ► Preventing the spread of harmful organisms through hygiene measures (for example, by regular cleansing of machinery and equipment) ► Protection and enhancement of important beneficial organisms (for example, through adequate plant protection measures or the utilisation of ecological infrastructures inside and outside production sites).
EXAMPLE	Crop rotation is the primary non-chemical control option and pest prevention tool. The case of western corn rootworm (WCR, an invasive pest of maize) is a good example for how rotation supports the management of the population of this pest. WCR females lay their eggs in the soil of maize fields, eggs overwinter and hatch the following spring/early summer. If maize is followed by maize, larvae will feed and damage the maize root system. If maize is rotated to other crops, WCR larvae will not find suitable food sources and will die. Depending on the share of non-rotated maize and on the population size of WCR, not each maize field should be rotated in each year. By considering the local conditions and other additional population suppression tools, the WCR population

	can be managed efficiently.
SOURCES	► Draft Guidance Document for establishing IPM principles (http://www.endure-network.eu/about_crop_protection/european_documents : BIPRO 2009 reports) ► **on the** ENDURE Information Centre **:** → keywords: measure = preventive measures ► **on the ENDURE website:** Western Corn Rootworm in Europe: Integrated Pest Management is the only sustainable solution
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