

TOOLS 16	Innovative IPM pome fruit systems
	Systems

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WHAT IS	The objective is to design innovative IPM solutions in pome fruit which will substantially and realistically contribute to a reduced risk to human health and environment. These new designed innovative IPM solutions are tested on efficacy, economic, health risk and environmental aspects under well controlled conditions and as total IPM systems in commercial orchards
WHY	Pesticide residues in fruits have been signalled almost unanimously as the major market concern. Therefore introducing a new IPM tool (for example a new variety) requires the use of marketing efforts and is accompanied with high risks. For growers, bottlenecks linked to time management and to the farm organisation are important. Moreover, knowledge and technical gaps for orchard monitoring and orchard management e.g. for resistant cultivars have to be further studied.
HOW	With growers, it is first important to implement a system and multipest approach, initially focusing on the key pests and diseases of pome fruit, and aiming to integrate the most promising innovative IPM tools into advanced fruit production strategies. Among these tools, available decision support systems and prophylactic methods like sanitation has to be improved and implemented for the key pests and diseases. Biological control through habitat conservation can be extended to lepidopteran pests and aphid communities. The evolution of hail nets towards pest exclusion netting has to be evaluated on the whole system. New tools (BCAs, apple scab antagonists, cover crops) issued from research activities could be tested. It is also important to use a repetitive cycle over the years with aid of the farmers, where an IPM strategy is designed, tested using multi-factorial experimentation under controlled condition and on-farm experiments, assessed, improved and redesigned. By that, newest insights are incorporated. Note that key pests and diseases can be different for different European regions and consequently, developed innovative IPM solutions will be different for different regions.





Sheet T16

	At the end, assessments will be done with emphasis on expected benefits in terms of health risks for workers, environmental aspects and reduced dependency on pesticide use on the one hand side and on possible economic and institutional hindrances to implement promising IPM tools and solutions in practice on the other hand side.
SOURCES	. O II ENDURE I II