

TOOLS T 9	<h1>Use of semiochemicals</h1>
	<h2>Theoretical</h2>

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WHAT IS...	<p>A semiochemical is a chemical substance which is involved in communication between organisms. When the releaser and the receiver belong to different species, the substance is called an allelochemical. If the action of the allelochemical benefits only the releaser (i.e. it works as a repellent) it is called an allomone. If it benefits only the receiver (i.e. an attractant), it is called a kairomone. When the releaser and the receiver belong to the same species, the substance is called a pheromone (i.e. sex pheromones, substances involved in communication between individuals of different sexes). Their use in IPM is based on the disruption of the behaviour of animal pests that they may cause. Some substances of non-living origin, which are therefore not true semiochemicals, can be also used in a similar way. They are known under the generic names of attractants or repellents.</p>
WHY	<p>In general, semiochemicals can be synthesised in the laboratory at reasonably high scales and costs, making it possible to use them in IPM. Kairomones and particularly pheromones are widely used for population sampling (using either the complete pheromone or just its main component), and as part of control techniques, such as mating disruption, mass trapping, attract and kill, and attract and sterilise. In the case of population sampling, it is important that advisers and farmers can correctly interpret the results of catches in widely used pheromone traps.</p>
HOW	<p>In classroom sessions:</p> <ul style="list-style-type: none"> ▶ Explain the concept of the different types of semiochemicals. ▶ Present the different control techniques that use semiochemicals. ▶ Focus on the practical aspects: conservation and handling of traps and dispensers, placement and distribution of traps and attraction units in the field, and checking procedures. Wrong use of these devices may lead to wrong pest control decisions. <p>In practical lectures:</p> <ul style="list-style-type: none"> ▶ Show different traps and dispensers, and allow participants to handle them. <p>During field visits:</p> <ul style="list-style-type: none"> ▶ Plan a visit to a plot where the method is applied.
SOURCES	<ul style="list-style-type: none"> ▶ The Pherobase: http://www.pherobase.com/ ▶ On the ENDURE Information Centre: <p>Keywords: measure > non-chemical control > biotechnical measures</p>