

Annex A5.4: Breakout session 2: Major pests on cabbages, control and bottlenecks

Insects	control strategies currently used when problem	IPM alternative	Bottlenecks	Additional comments
<i>Delia radicum</i>	nets, insecticides, seed treatment, drench treatment, sprays. Monitoring and forecasting	DSS, exclusion fences	problem in organic crops, disperses further than 1 km, conservation control insufficient; DSS has not much impact since most effective treatments are prophylactic; insecticides have side effects on beneficials; few good working insecticides available	Nets used in UK when economics are right. Creates other problems with pests and diseases
<i>Lepidopteras</i>	Insecticide sprays and <i>Bacillus thuringiensis</i> ; monitoring	monitoring and DSS	biological control needs precise timing to be effective, biocontrol more expensive and less effective, growers need to be encouraged to use alternatives to pyrethroids and other broad spectrum insecticides; insecticide resistance in <i>Plutella</i> ; <i>Plutella</i> disperses over great distances; OSR is another host	
<i>Myzus persicae</i>	insecticides, seed treatments and sprays; monitoring and forecasting, suction traps, vegetable oils, soaps	reducing N input, suction traps and DSS	insecticide resistance, reduction of natural enemies, main challenge is insecticide resistance management; reducing N input is not feasible	
<i>Brevicoryne brassicae</i>	insecticides, seed treatments and sprays; monitoring and forecasting, suction traps, vegetable oils, soaps	functional biodiversity	difficult to control with contact insecticides; often heavily parasitized by parasitoids and predators if not disturbed by insecticide use	
<i>Contarinia nasturtii</i>	monitoring, cultural practices, chemicals. Field distance. Seed treatments		expertise required to separate out the midges from other insects in traps; not enough information on control methods and treatment timing	
<i>Aleyrodes proletella</i>	insecticides, sprays, seed treatments	cultural practices, nets	some insecticides not very effective; exclusion of parasitoids with nets sometimes worsens the situation; resistance to pyrethroids	
<i>Thrips tabaci</i>	tolerance on white and red cabbage, occasionally insecticides, often no control, Spinosad	DSS (French model), tolerant varieties, vegetable oils; spraying techniques	vegetable oils may not be effective, systemic insecticides needed, tolerant varieties not wanted by commercial growers; anything that would help target treatments would be good since difficult to find correct application time and efficacy of insecticides often poor	
<i>Phyllotreta spp.</i>	cultural practices, insecticides, nets	distance to other cabbage fields, silica rock dust	hard to separate fields	
<i>Meligethes aeneus</i>	no control or insecticides when in neighbourhood of OSR, nets, DSS	trap crops, nets	trap crops and nets are not worth the extra management cost because sporadic pest; forecasting model of summer flight urgently needed; adults need to be controlled on cauliflower and broccoli; problems with preharvest interval	
<i>Agriotes/Hellula</i>	no control, soil tillage, crop rotation		high incidence in broccoli in monoculture in Spain	
Slugs and snails	molluscicides, cultural practices, monitoring, traps	cultural practices, biocontrol	molluscicides not always effective, metaldehyde perceived to be better than ferric phosphate but contamination issues; biocontrol is expensive; traps probably not effective and too expensive for field crops	
Wild life damage	scarers, netting and shooting		nets and fences work but are expensive, birds get used to scary men, shooting can be effective; repellent seed treatment would be good if effective	