



What can we
learn for
overseas?

- Chris Thompson – Bioforce

Europe Thrips Control Update

European Thrips Biological Control Research Map



What good thrips management currently looks
like in commercial production systems



BCA's for Thrips

	NZ	EU
Population	5M	452M
Protected Cropping area	< 500 Ha	+100,000 Ha
Number of bug companies	2	30+
Thrips control products	12	21

Control Products

In Europe

In New Zealand

Cucumeris
 Limonicus
 Swirski
 Montdorensis
 Amblyseius andersoni
 Orius laevigatus
 Orius majusculus
 Bioforce Orius
 Stratiolaelaps scimitus
 Macrocheles robustulus
 Steinernema feltiae
 Steinernema carpocapsae
 Akanthomyces muscarius
 Beauveria bassiana
 Dalotia coriaria
 Chrysoperla carnea
 Lacewing-Force
 Macrolophus pygmaeus
 Nesidiocoris tenuis
 Engytatus
 Franklinothrips vespiformis

 Yellow traps
 Blue Traps
 Pheromones



Not all BCA's are allowed in every EU member state.

Control plans differ by species and country

WESTERN FLOWER THRIPS
(*Frankliniella occidentalis*)




Status: Established; Primary greenhouse pest. Vectors TSWV virus.

ONION THRIPS
(*Thrips tabaci*)




Status: Widespread; Major field and vegetable pest.

EUROPEAN FLOWER THRIPS
(*Frankliniella intonsa*)




Status: Native; Common in open fields and orchards.

GLASSHOUSE THRIPS
(*Heliothrips haemorrhoidalis*)



Status: Native; Common in open fields and orchards.

PALM THRIPS
(*Thrips palmi*)




Status: Quarantine Pest; Regulated and subject to eradication.

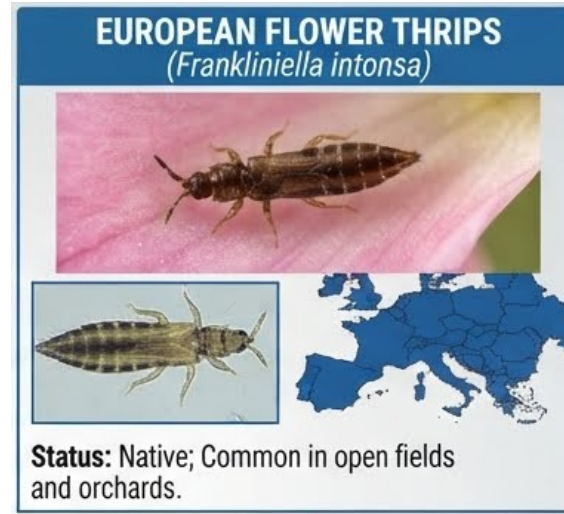
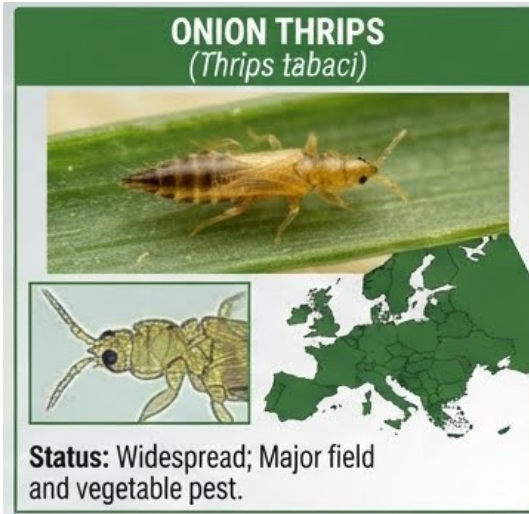
PEPPER THRIPS
(*Thrips parvispinus*)




Status: Rapidly invasive in Mediterranean greenhouses.



Baseline Controls



- Mass trapping with yellow or blue traps
- Cucumeris (Mite A) applications early before pests are a problem
- Stratiolaelaps scimitus (Hyper Mite) early before pest are a problem
- Nematode (Nemaplus) drenches through fertigation to help Hyper mite when thrips attack occurs
- Bigger aggressive predators added when thrips attack is starting and repeated until control is gained
- Scouting is key for seasonal trends to help growers improve over time and to help balance production with producers

Side effects		AVID abamectin [×]	methomyl [×]		mineral oil [×]	permethrin [×]	SPARTA spinetoram [×]	SUCCESS spinosad [×]		MOVENTO spirotetramat [×]	MAVRİK tau-fluvalinate [×]
		SP	SP	DR	SP	SP	SP	SP	DR	SP	SP
Aphidius colemani [×]	adult	4	4	2	1	4	4	1	1	1	2
	larva						3	1	1	1	
	mummy		4	3	1	4					1
	persistence	1 w	8 - 12 w	1 w	0 w	8 - 12 w	2 w			0 w	
Encarsia formosa [×]	adult	4	4	3	1	4	4	3	1	2	4
	larva			4			4	2	2	2	
	pupa	1	4		1	4					3
	persistence	3 w	6 - 10 w	1 w	0 w	8 - 12 w	1 w	1 w			
Neoseiulus cucumeris [×]	population						3	3	1	2	
	adult	4	4		3	4					4
	nymph	4	4		3	4					4
	egg		4			4					4
	persistence	2 w	6 - 8 w			8 - 12 w					
Phytoseiulus persimilis [×]	population						3			3	
	adult	4	4		3	4		2	1		4
	nymph	4	4		3	4		2			4
	egg		4			4					4
	persistence	1 w	4 w			8 - 12 w	1 w	1 w	0 w	2 - 6 w	6 w

Improving Climate



Coatings



Wet Walls



Shade Screens



Whitewash



Misting Systems



Emerging approaches and new ideas that are beginning to gain interest within the industry

