

Actual situation of biological plant protection  
in viticulture, fruticulture, vegetables,

Czech rep., Poland, Hungary, Slovakia









Milan Hluchý, Biocont Laboratory, CZ

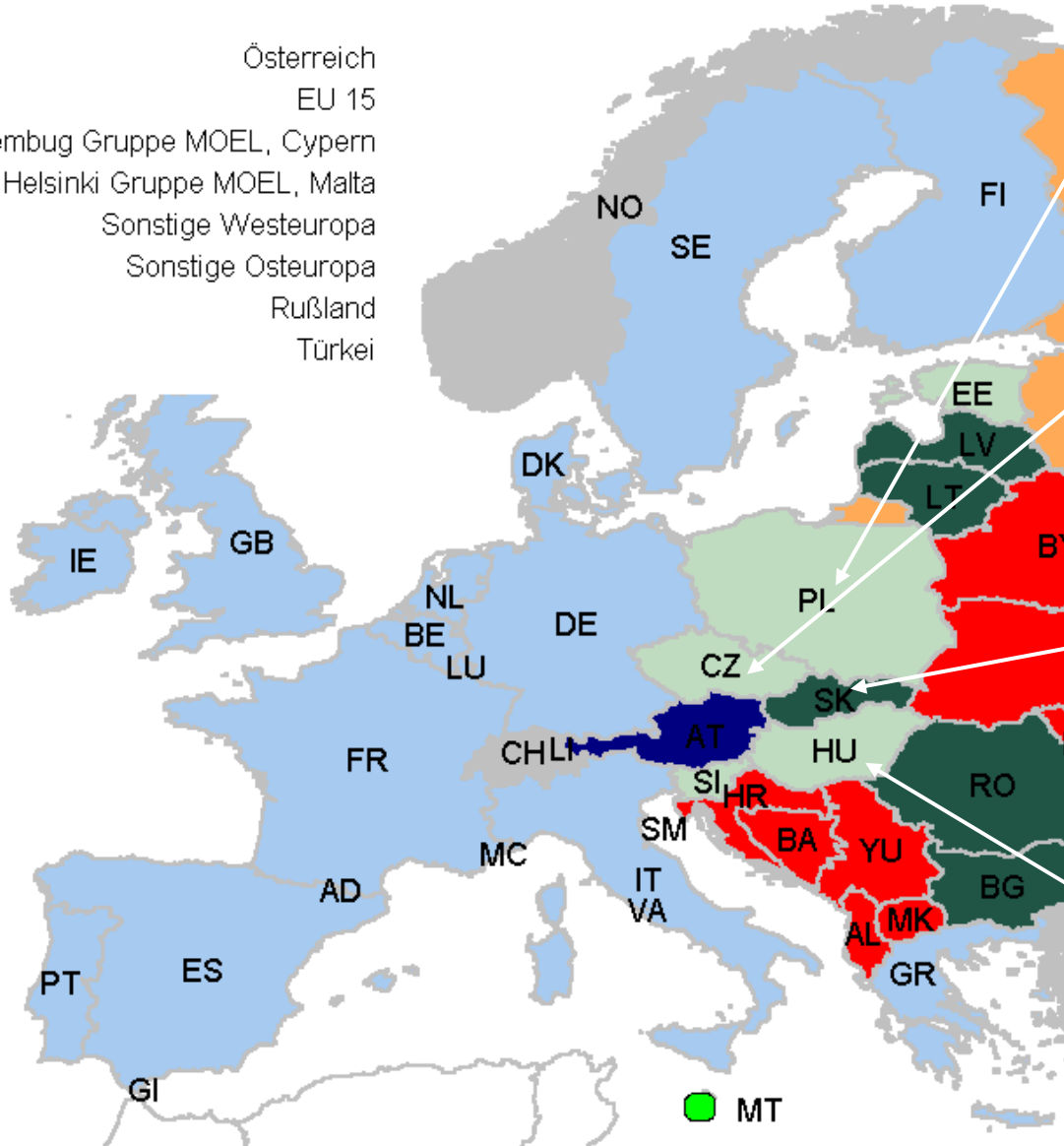
Michal Pniak, Biocont Polska

Gyula László, Biocont Magyarország



# DAS NEUE EUROPA

-  Österreich
-  EU 15
-  Luxemburg Gruppe MOEL, Cyprien
-  Helsinki Gruppe MOEL, Malta
-  Sonstige Westeuropa
-  Sonstige Osteuropa
-  Rußland
-  Türkei



**Poland:**

- Population: 38.500.000
- Total area: 313.000 km<sup>2</sup>
- : BNP/capita (2007) 16.000 USD

**Czech republic:**

- Population: 10.300.000
- Total area: 79.000 km<sup>2</sup>
- : BNP/capita (2007) 24.000 USD

**Slovakia:**

- Population: 5.500.000
- Total area: 49.000 km<sup>2</sup>
- : BNP/capita (2007) 20.000 USD

**Hungary:**

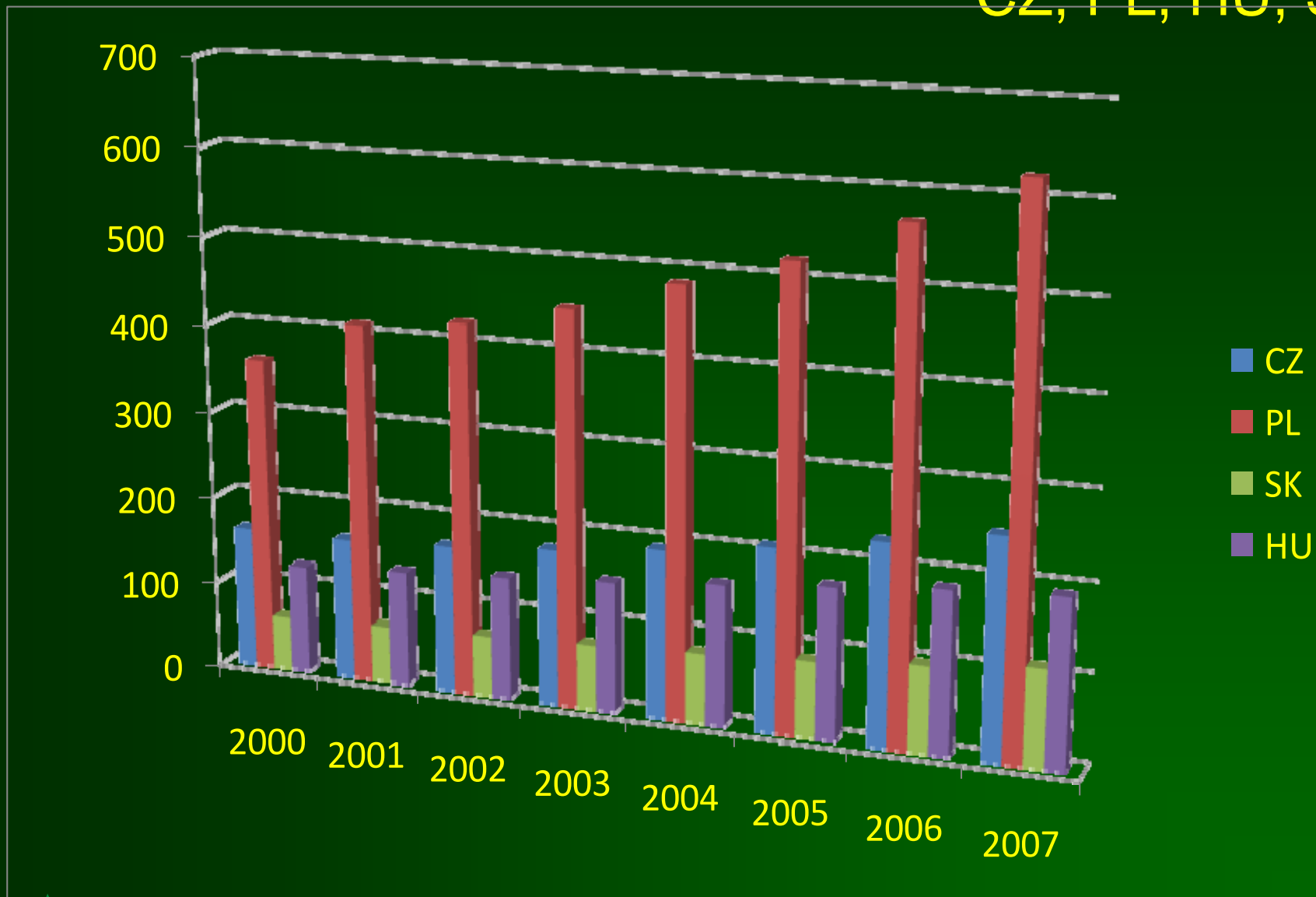
- Population: 10.300.000
- Total area: 93.000 km<sup>2</sup>
- : BNP/capita (2007) 16.000 USD

**Total PL, CZ, SK, HU:**

- Population: 64.600.000
- Total area: 534.000 km<sup>2</sup>

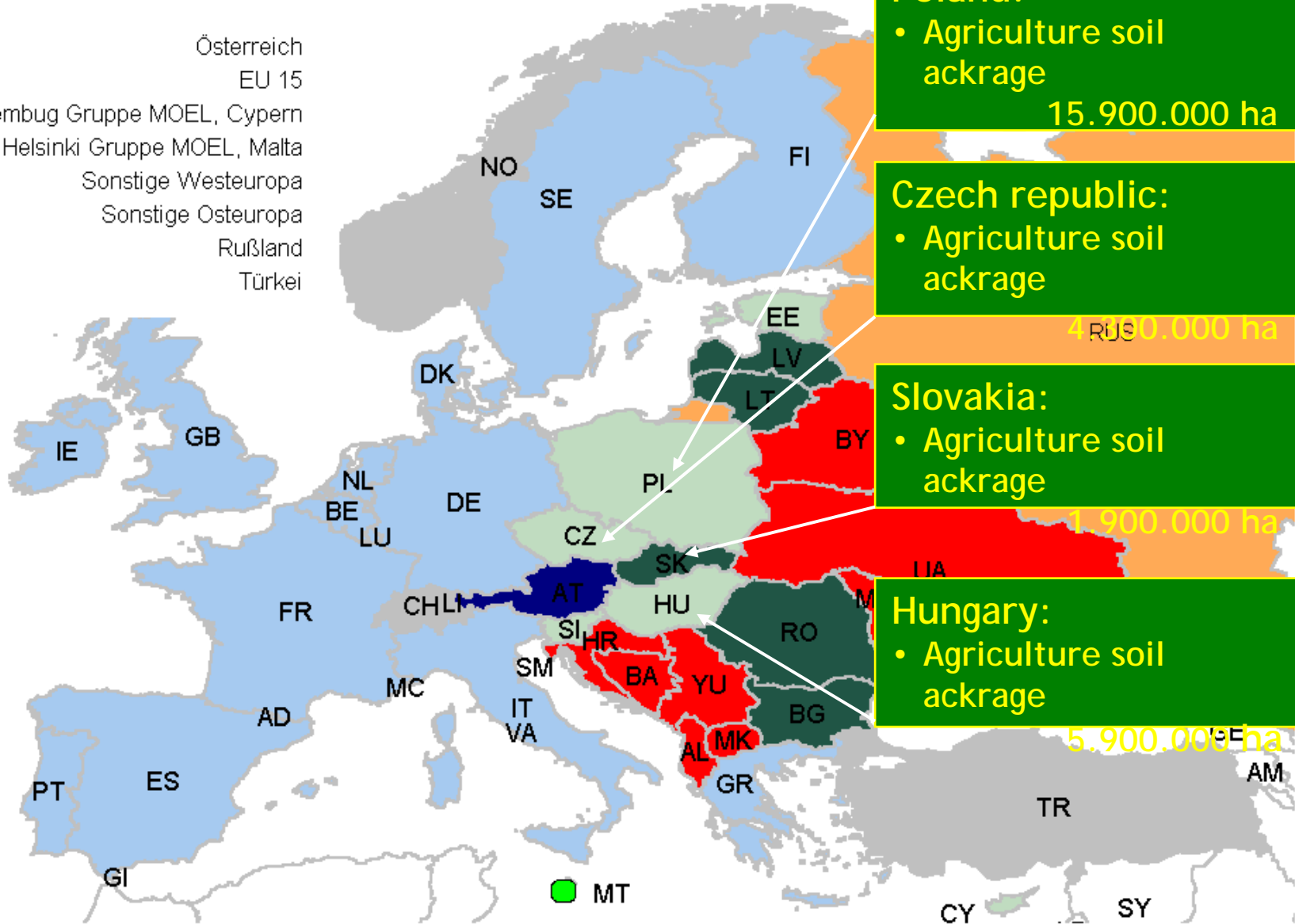


# Development of brutto national product – CZ, PL, HU, SK

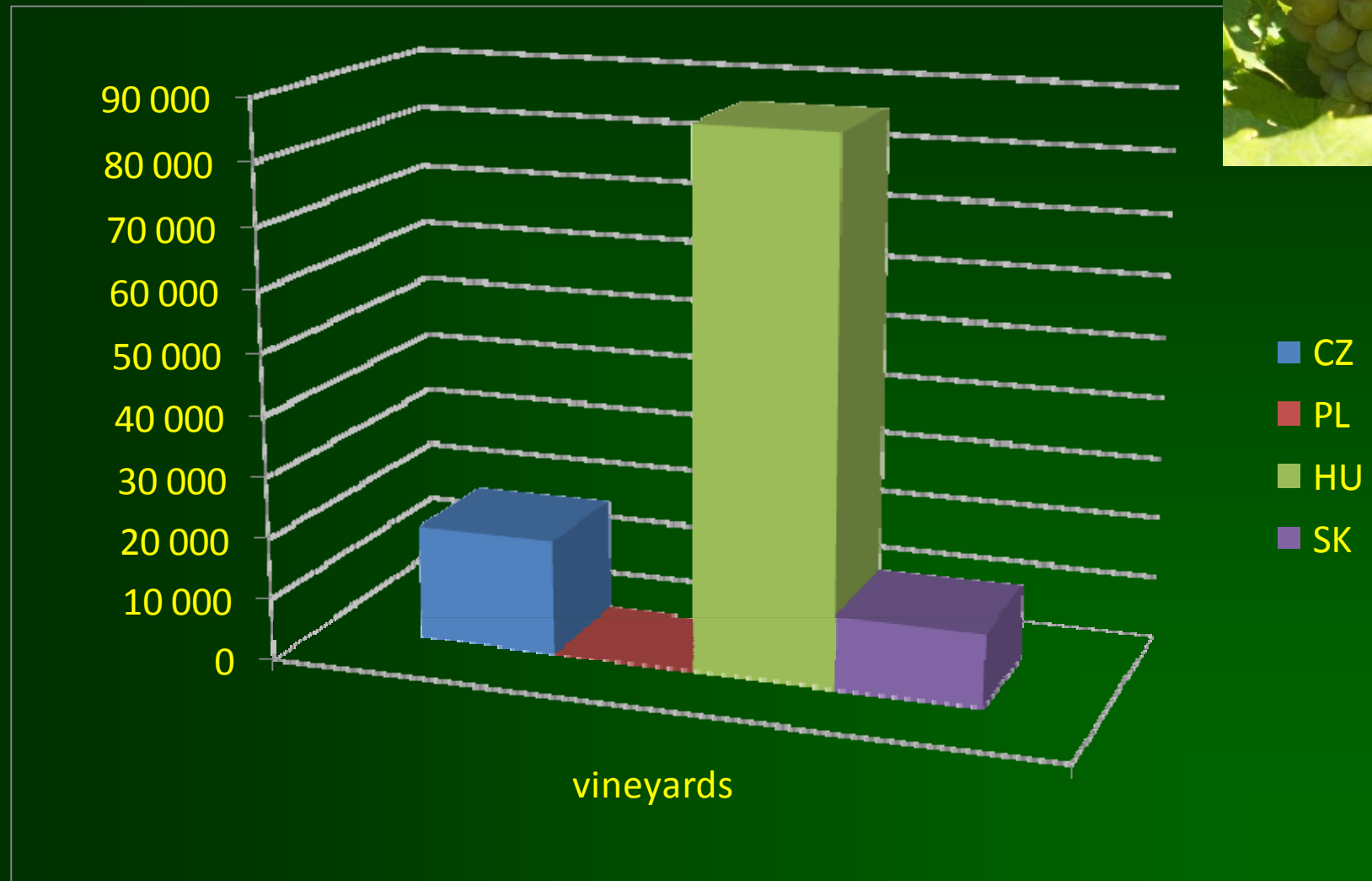


# DAS NEUE EUROPA

- Österreich
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# Ackrage of vineyards (ha) CZ, PL, HU, SK



# Viticulture - registration



Pathogen	CH	CZ	SK	HU	PL
Plasmopara viticola	MycoSin Cu (Kocide)	MycoSin Cu (kocide)	Cu	Cu	Cu
Oidium tuckeri	MycoSin HF Pilzvors. Sulphur VitiSan Mehltauschr. Cocana	MycoSin HF Mycol Sulphur VitiSan	Sulphur AQ 10 Trichomil	Sulphur Corax soap	Sulphur
Botrytis cinerea	VitiSan Wasser Glass HF Pilzvors.	VitiSan Aqua Vitrin HF Mycol	Water glas Trichomil	Water glas	Water glas
Metasphaeria diplodiella	Not important	Not important			Not important
Pseudopeziza tracheiphila	MycoSin sulphur	MycoSin sulphur	Sulphur	Sulphur	Sulphur

# Viticulture - registration



Pest	CH , D	CZ	SK	HU	PL
Lobesia botrana Eupoecilia ambiguella	Isonet LE Isonet L plus Bt - Delfin	Isonet LE Isonet L plus Bt - Biobit	Bt - Biobit	Isonet LE Isonet L plus Bt - Biobit	
Calepitrimerus vitis	Sulphur Parafin. Oil T. Pyri Water glas	T. pyri Sulphur Parafin. Oil Water glas	T. pyri Sulphur Parafin. oil	T. pyri Sulphur Parafin. olej	T. Pyri Sulphur Parafin. olej
Tetranychide	Parafin oil T. pyri	Sulphur Parafin. oil T. pyri	Sulphur Parafin. oil T. pyri	Sulphur Parafin oil T. pyri	Sulphur Parafin oil T. pyri
Byctiscus betulae	NeemAzal				
Drepanothrips reuterii	NeemAzal	Not important	Not important	T. pyri Vektafíd	Not important
<b>Important problems</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>
<b>Other problems</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>3</b>

# Basic system of treatment against main pathogens



Plasmo-  
para  
viticola

	MycoSin	MycoSin		MycoSin			
			Kocide		Kocide	Kocide	Kocide

Oidium  
tuckeri  
Botrytis  
cinerea

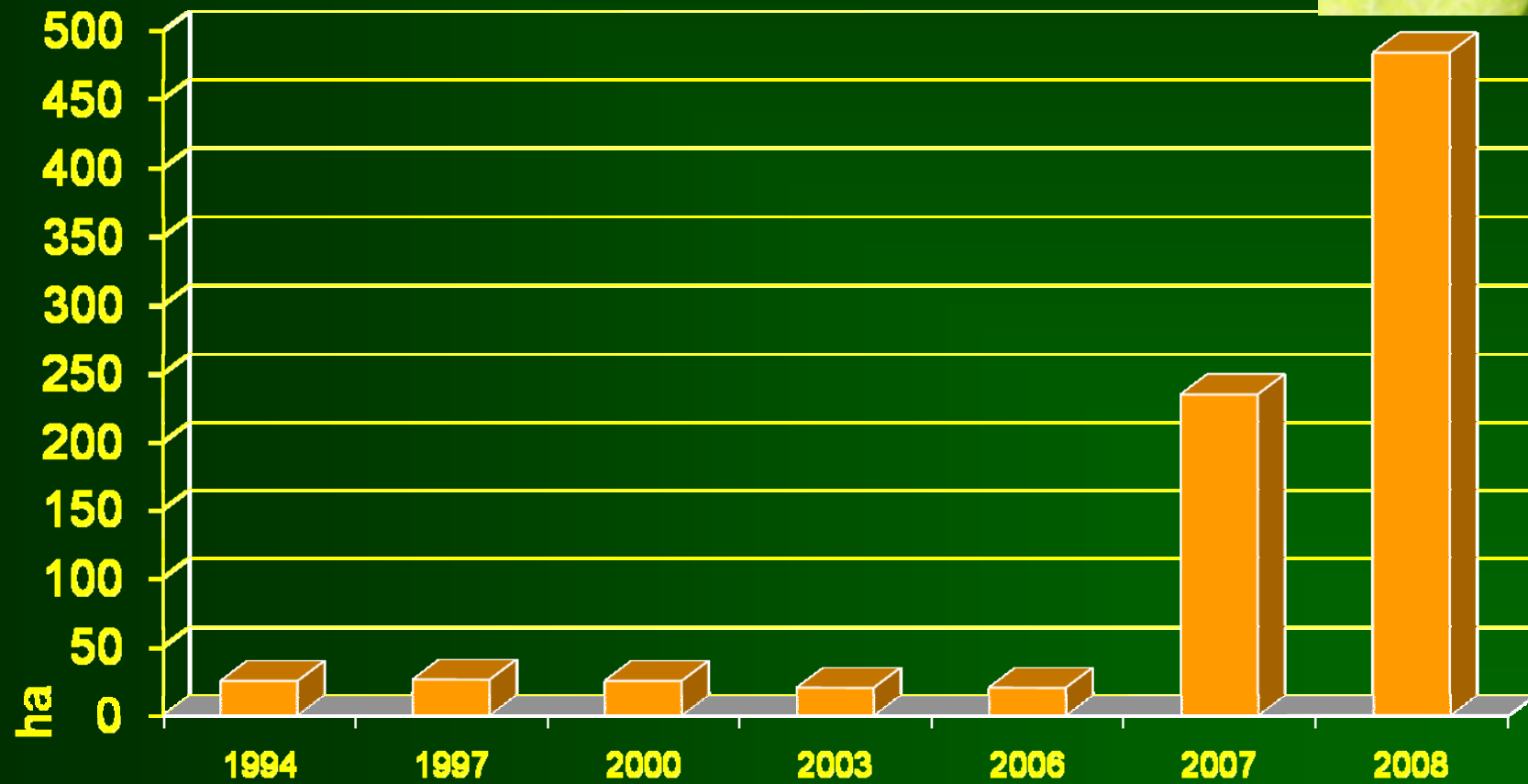
Síra	Síra	Síra		Síra			
Water glas			HF+VS		HF+VS	HF+VS	HF+VS

Botrytis  
cinerea

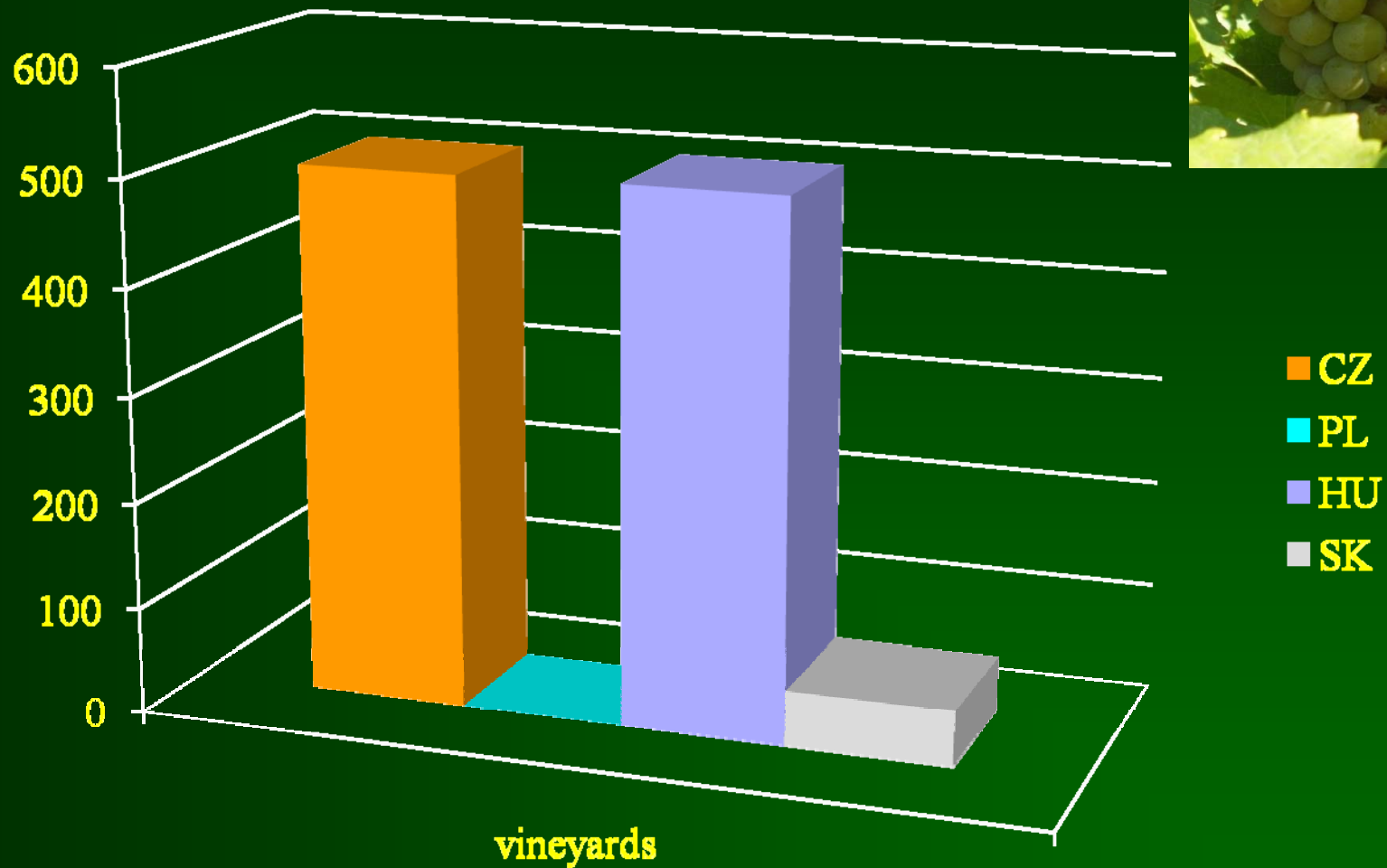




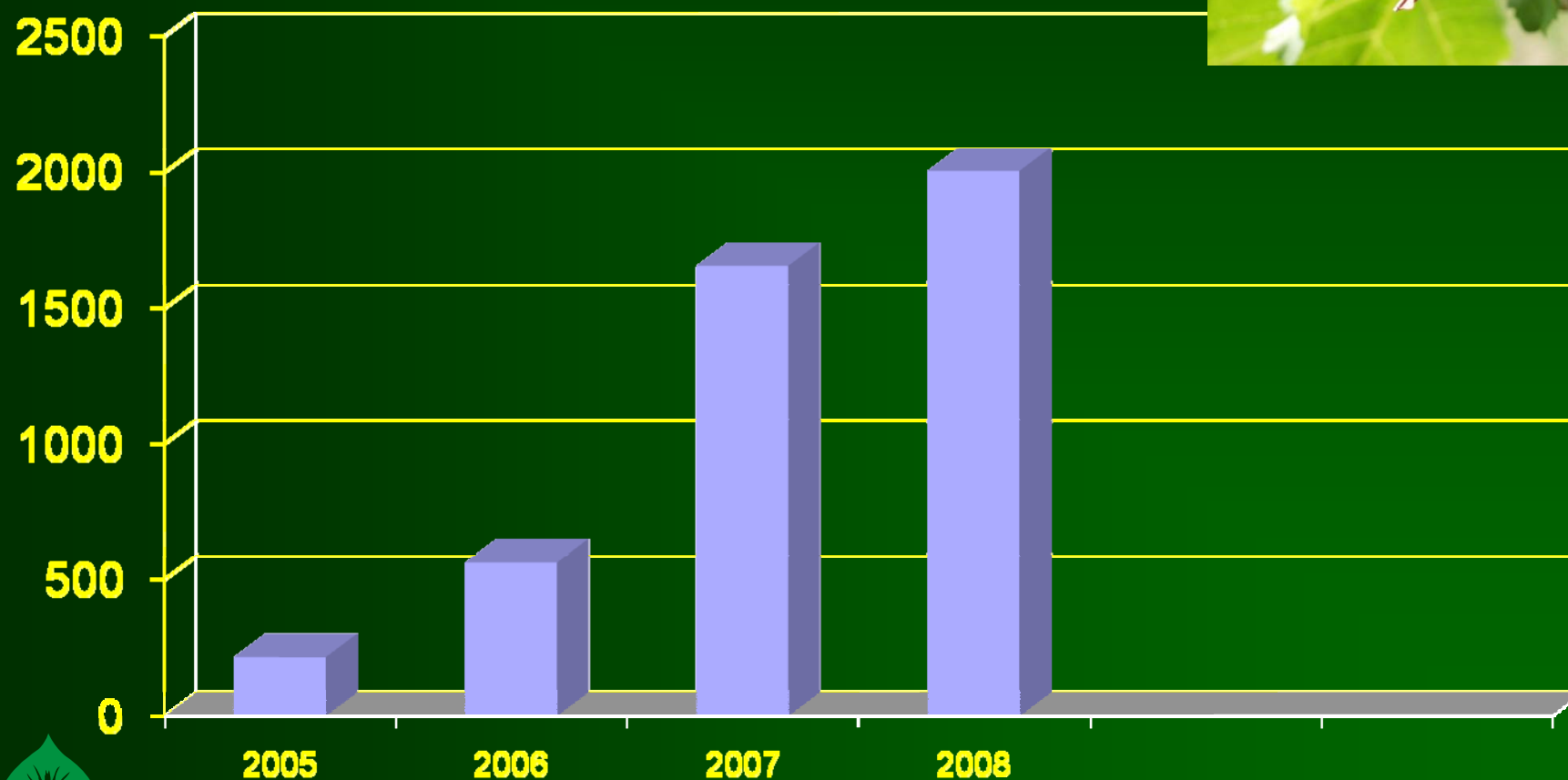
# Development of organic viticulture in Czech rep.



# Ackrage of organic vineyards (2008) CZ, PL, HU, SK

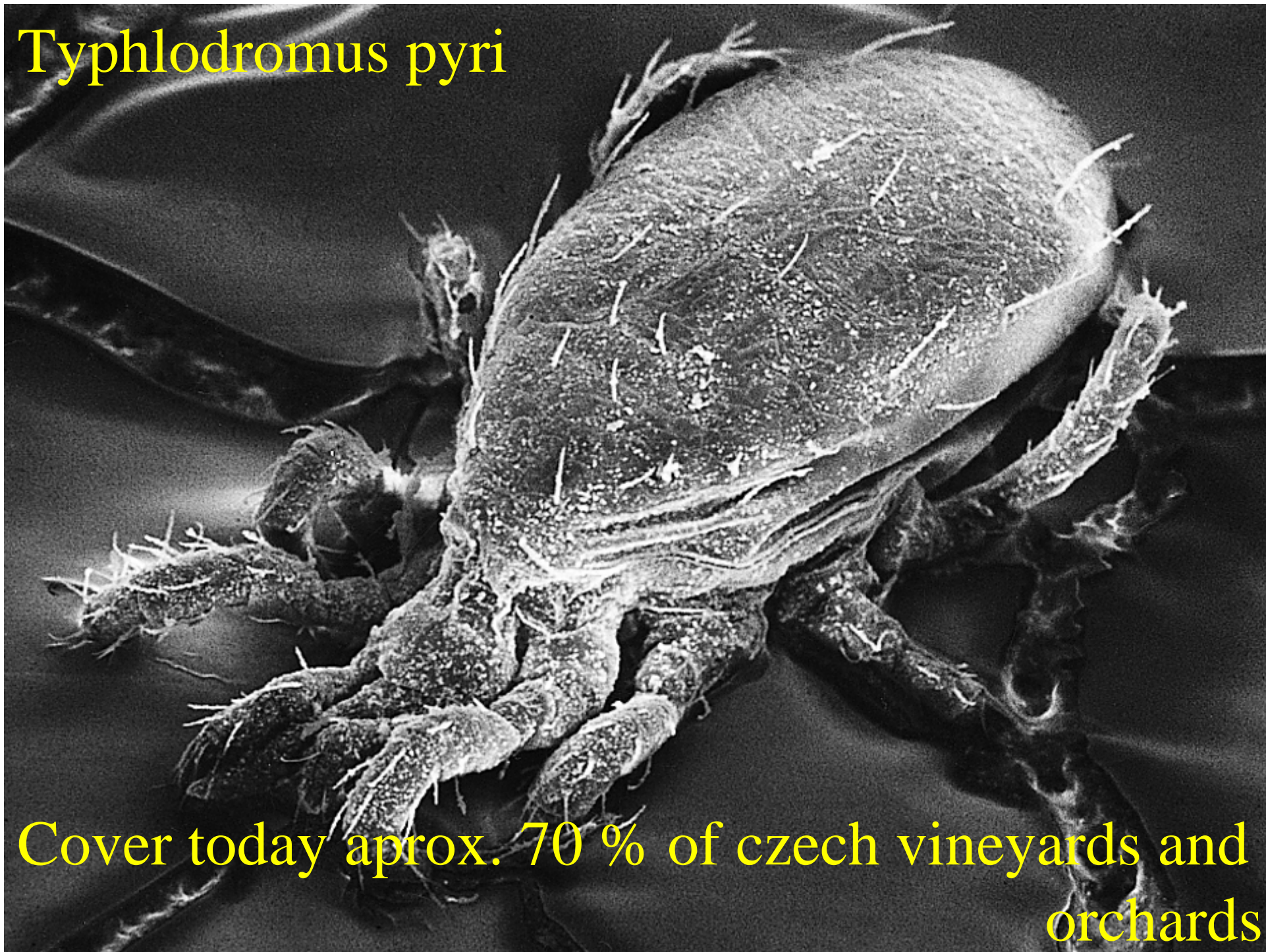


# Development of the ackrage of vineyards under pheromone (MD) protection (CZ)



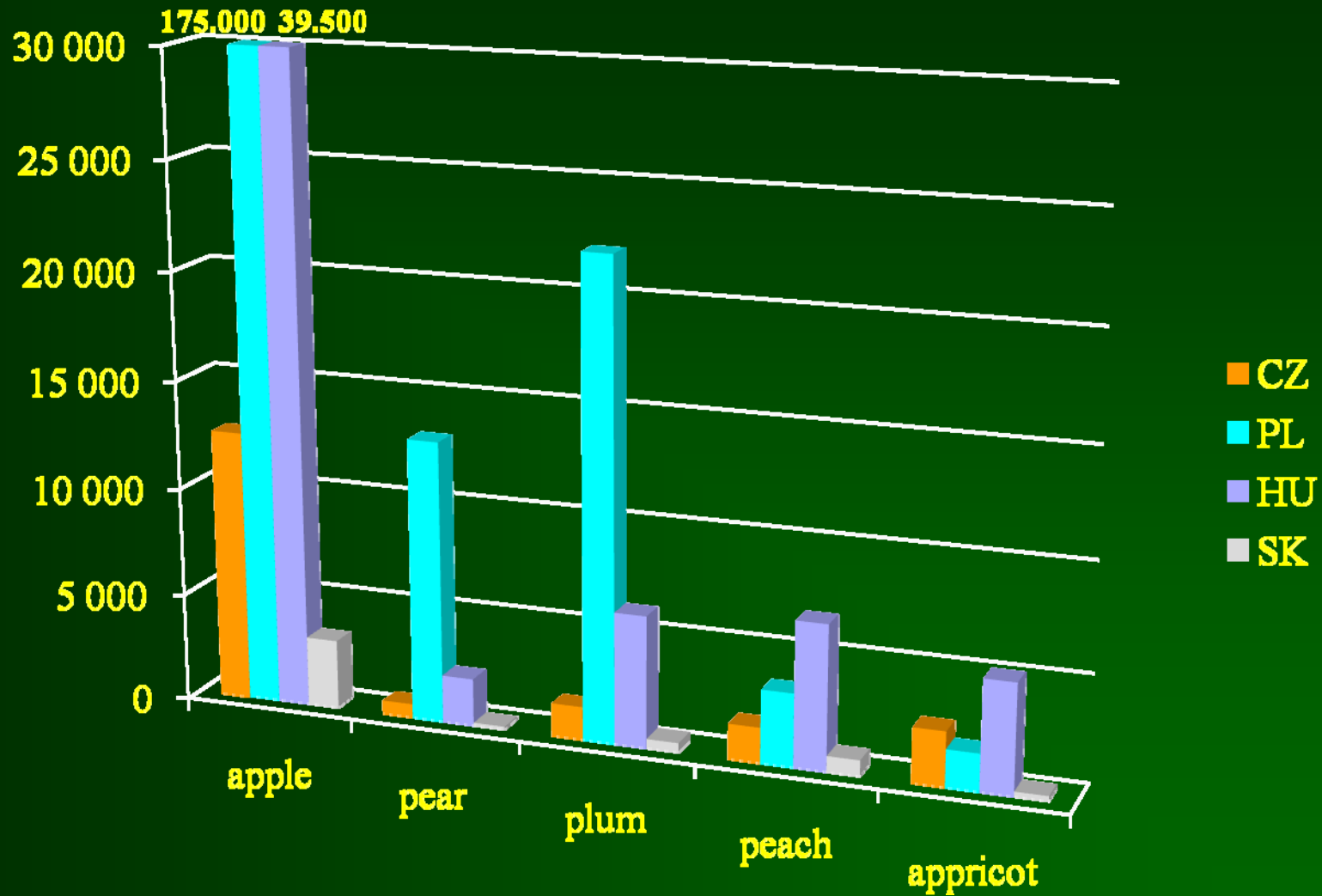
# Typhlodromus pyri

Cover today aprox. 70 % of czech vineyards and orchards



# Ackrage of orchards

CZ, PL, HU, SK



# Pip fruits - registration

Pathogen pest	CH, D	CZ	SK	HU	PL
Venturia inaequalis	Cu sulphur MycoSin	Cu Sulphur MycoSin	Cu Sulphur	Cu Sulphur (MycoSin)	Cu Sulphur
Podosphaera leucotricha	Sulphur Mehltauschreck	sulphur	sulphur	sulphur	sulphur
Cydia pomonella	Isomate C plus Isomate CTT Isomate CLR CPgV – Madex I, II. Spintor	Isomate C+ Isomate CLR Bt – Biobit (Madex)	Spintor Bt – Biobit	Isomate C+ Isomate CLR Spintor Bt – Dipel (Madex)	Madex Spintor (Isomate CTT,CLR CLR plus))
Adoxophyes orana Spononota ocellana etc.	Isomate CLR Isomate CLR/OFM AOgV – Capex Bt - Delphin	Isomate CLR Bt – Biobit (Spintor)	Spintor Bt - Biobit	Isomate CLR Spintor Bt - Dipel	(Isomate CTT,CLR CLR plus)
Grapholita spp. (molesta, janthinana)	Isomate C/OFM Isomate OFM rosso Isomate CLR/OFM	Bt – Biobit (Spintor)	Spintor Bt - Biobit	Isomate OFM rosso Bt – Dipel	??

# Pip fruits - registration.

Pathogen pest	CH	CZ	SK	HU	PL
Hoplocampa testudinea	Quassan Quassia	Quassia	Quassia	Quassia	Quassia
Anthonomus pomorum	Spruzit Neu Novodor		Novodor	Novodor	(Novodor)
Synanthedon myopaeformis	Isomate P	(Isomate P)	(Isomate P)	(Isomate P)	
Noctuidae Geometridae	NeemAzal Bt - Xentari	Bt – Biobit (Spintor)	Bt – Biobit Spintor	Bt - Dipel Spintor	(Dipel)
Aphids	NeemAzal	(NeemAzal) oil		(NeemAzal) oil	(NeemAzal) oil
Psyllids (pear)	Kaolin Anthocoris				Anthocoris
Leucoptera spp.	NeemAzal	(Neem Azal)	Vektafíd	(NeemAzal)	(NeemAzal)

# Pip fruits - registration

Pathogen pest	CH	CZ	SK	HU	PL
Erwinia amylovora	MycoSin	MycoSin		(Aureobasidium pullulans)	??
Stock disease	VitiSan Cocana	VitiSan (Cocana)		Corax soap	
Sazovitost jablek	VitiSan Cocana	VitiSan		Corax soap	
Sucking insects	NeemAzal NeudoSan Spruzit Micula	Oil (Neem Azal)	oil	oil (Neemex)	oil
Tetranychidae	oil NeudoSan	oil T. pyri	oil T. pyri	oil T. pyri	oil T. Pyri
Other problems	<b>0</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
Important problems	<b>0</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>7</b>



# Vegetables- registration

Pathogen pest	CH	CZ	SK	HU	PL
Aphididae	NeemAzal Neudosan Neu Micula	oil	Vektafíd	Vektafíd	oil
Lepidoptera	Trichogramma Bt - Xentari	Trichogramma Bt - Biobit	Trichogramma Bt – Biobit	Trichogramma Bt - Biobit	Trichogramma Bt – Dipel
Erisiphae	VitiSan Milsana HF Pilzvors. Mehtauschreck Síra a další	VitiSan HF Mycol síra	síra	síra	Síra
Molds (Fungi)	Cu MycoSin	Cu MycoSin	Cu	Cu	Cu
Botrytis cinerea	Milsana Binab Neudo Vital				
Sclerotinia sclerotinorum	Contans	Contans	Contans	Contans	Contans

# Vegetables- registration II

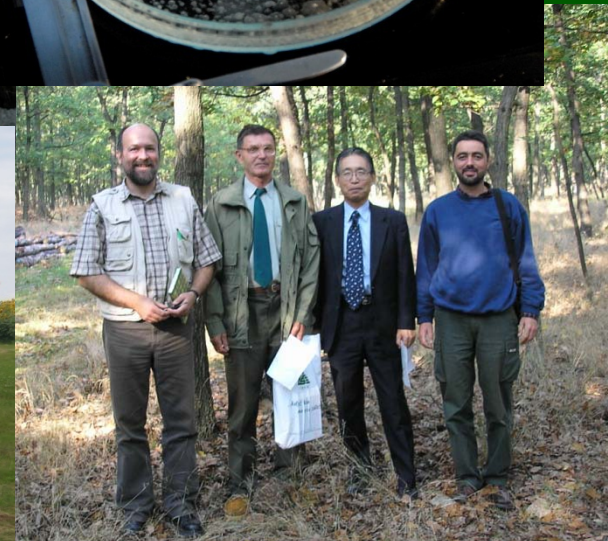
Choroba škůdce	CH	CZ	SK	HU	PL
Colorado potato beetle	Novodor NeemAzal		Novodor	Novodor	
Suck insect	NeemAzal NeudoSan oleje	oil	Vektafíd	Vektafíd	oil
Slugs	Ferramol Bioslug	Phasmarhab- ditis			Phasmarhab- ditis
Thrips	Pyrethrum		Vektafid	Vektafid	
Root and stem diseases	B. subtillis T. harzianum		Polyversum	Polyversum	Polyversum
Hardly solveable problems	1	2	6	6	5
Unsolveable problems	0	5	2	2	4



# Lymantria dispar



The development of spraying  
formulation pheromone (MD)



**Top quality advisory service is absolutely  
necessary**





Day butterflies in  
2 vineyards  
(Mikulov, Perná)  
in IPM system  
2004 – 2006

Total 47 species

M. Hluchý  
M. Švestka  
P. Vitek