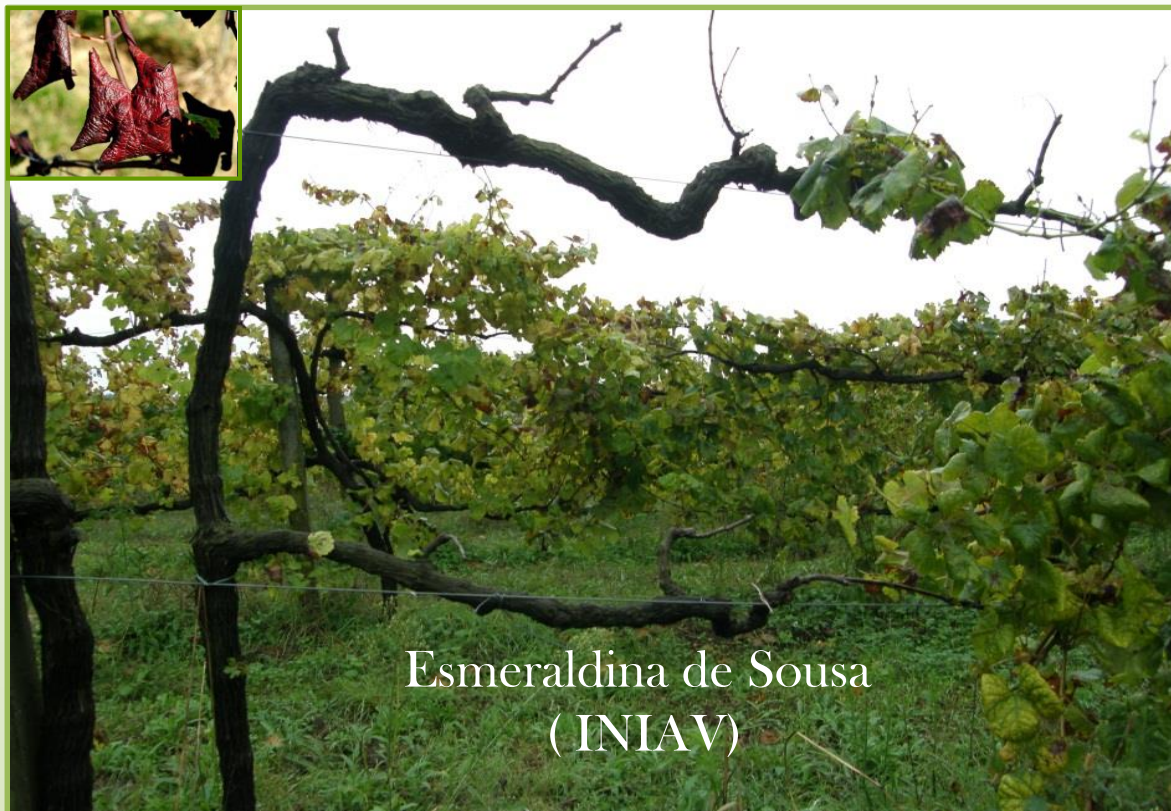


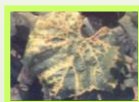
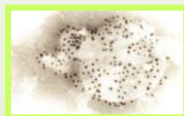


GO FDCONTROLO

Contribution to mitigate the spreading of Flavescence dorée (FD) disease in vineyards



Esmeraldina de Sousa
(INIAV)

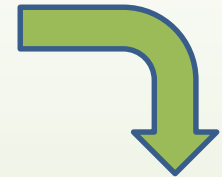


Factors influencing the control of pests and diseases: new paradigms to take into account

● Significant increase in international trade of plants and products



Entry of alien pests in the countries



● Drastic reduction in the number of active substances in the EU



INTEGRATED ECOSYSTEM MANAGEMENT

● Climate change



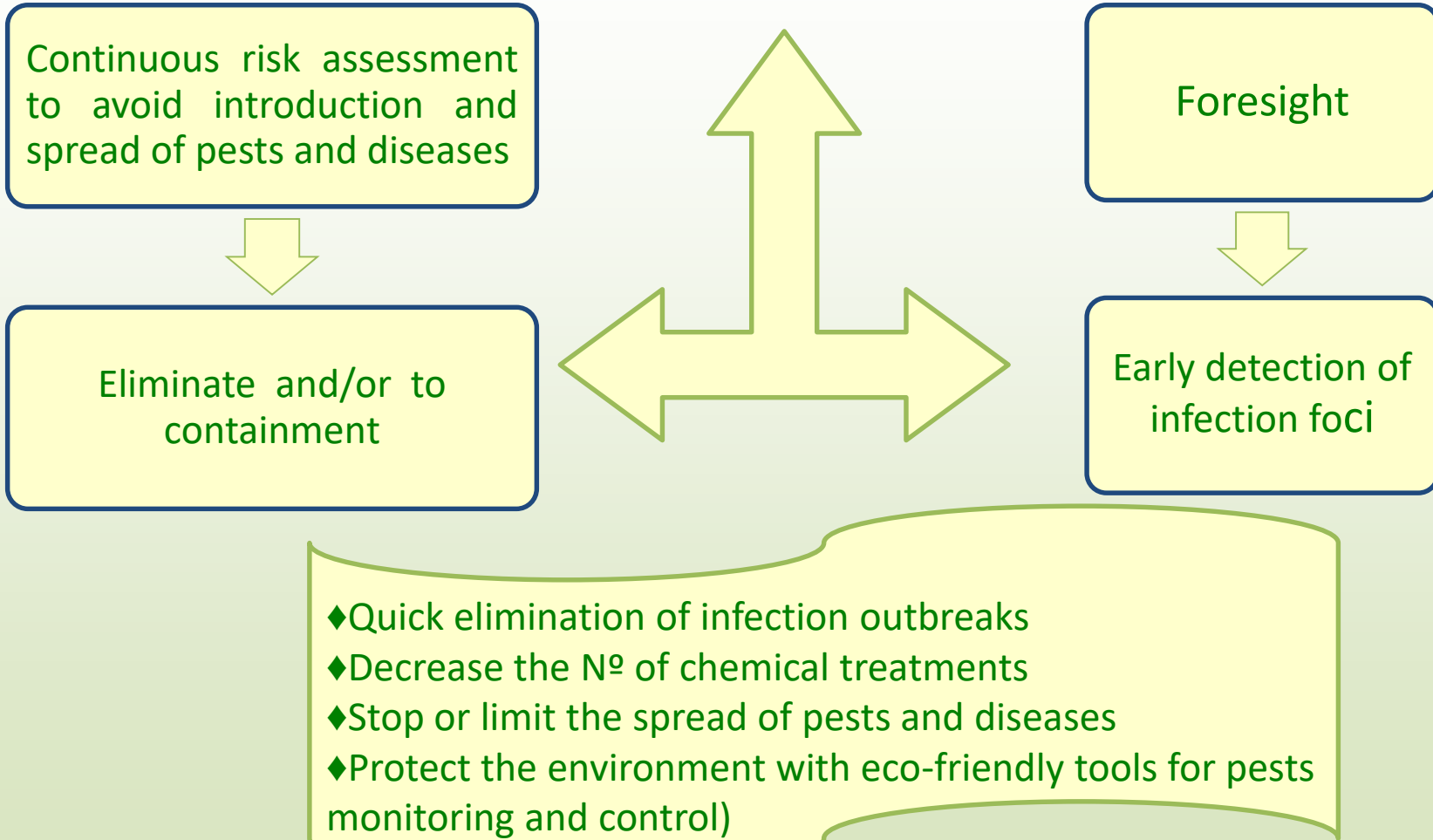
Change in the vegetative cycle of plants



Changes in the life cycle of pests and diseases



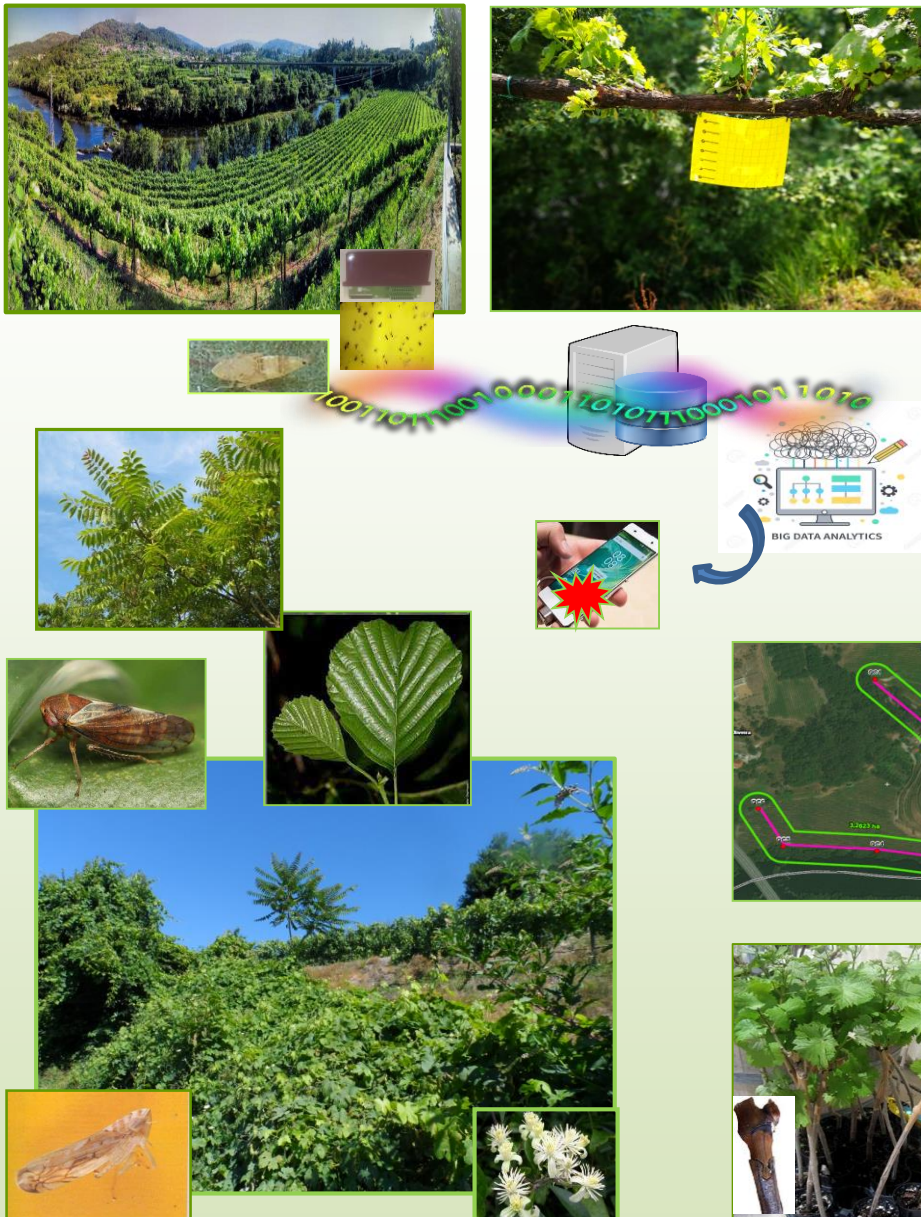
Integrated management of the agricultural ecosystem



Grapevine Flavescence dorée



- ◆ The Portuguese wine sector is economically relevant to the country
- ◆ FD mainly affects the region of 'vinho verde' -DOC
- ◆ It greatly reduces the income of producers
- ◆ Causes vineyard death in the short term and total loss of production in the absence of vector control
- ◆ There are no curative treatments against FD
- ◆ Grapevine is a perennial plant which increases the costs for disease eradication, re-planting and re-entry in full production



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1) Applying more efficient monitoring tools, making use of eco-friendly technologies (smart traps) for automatic detection and identification of the insect vector *Scaphoideus titanus* Ball.

2) Evaluate the role that other host plants and other putative insects vectors living in the surroundings of vine plots have as infection foci or insect repositories.

3) Identify and multiply the best regional combinations 'rootstock/variety' less FD susceptible as disease barriers.

RESULTS

- ◆ *Scaphoideus titanus* BALL and *Dictyophara* sp. were present in the borders of five vineyards. Other specimens of putative vectors are under evaluation;
- ◆ A great abundance of cicadellids *Macropsis* sp. was also observed in all grapevine plots and borders;
- ◆ Alder yellow phytoplasma (AldYp) was detected in leaves and flowers of Alder (*Alnus glutinosa*) in two vineyards (molecular characterization is ongoing);
- ◆ The list of weeds and others potential hosts for phytoplasmas is ongoing as well the one for insect vectors on the vineyards studied. Complementary images obtained by drones for characterization of the borders will be used.

- ◆ Despite the treatments in grapevine plots the existence of ST specimens in the borders of vineyards was confirmed ;
- ◆ Regardless the insignificant presence of ST vector inside the plots, these data indicate that the elimination of treatments may re-emerge the disease in those vines in a dangerous way. The reduction of treatments should be accompanied by the intensification of the monitoring;

These results reinforce the urgency of complying with the compulsory clean-up of abandoned vineyards as well as making treatments against ST in the surroundings of the plots.

GO
FDCONTROLO

Contribution to mitigate the spreading of Flavescence dorée disease in vineyards

CONSORTIUM:



Instituto Nacional de
Investigação Agrária e
Veterinária, I.P.



Sociedade Agrícola Quinta
de Santa Rita, Lda.



*Thank you for your
attention*



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Sampling area (green colour) was set to 25m to each side of the line between the traps (pink colour)

Host plants: *Alnus glutinosa* (alder), *Ailanthus altissima* (invasive), *Climatis vitalba* (weed), wild plants of *vitis* European and American, *Salix sp.* and *Corylus avellana*;

Insect vectors: *Orientus ishidae*, *Oncopsis alni*, *Dictyophara europaea*, *Metalcalfa pruinosa*, *Phlogotettix cyclops* and *Cacopsylla alni*.

