



**INTERNATIONAL ORGANISATION  
OF VINE AND WINE**

# **FLAVESCENZA DORATA**

## **le azioni promosse dall'OIV**

**Enrico BATTISTON**

**Capo Unità Viticoltura**

*26 aprile 2023*

*C.I.R.V.E. – Università degli Studi di Padova*

**OIV**



# About the OIV

- ✓ Scientific and technical reference organisation on the vine and wine sector
- ✓ Created in 2001 to replace the International Vine and Wine Office (1924), the OIV's main objectives are to:
  - 🍇 Contribute to the international harmonisation of existing practices and standards
  - 🍇 Inform its Member States of measures concerning producers, consumers and other players of the vitivinicultural sector
  - 🍇 Cooperate with other international organizations, especially those which carry out standards (EFSA, EPPO)

**+1000** Experts

Independent professionals of the sector that contributes to the research and publications

**49** Member States

countries responsible most of the production and consumption of wine in the world

**17** Observers

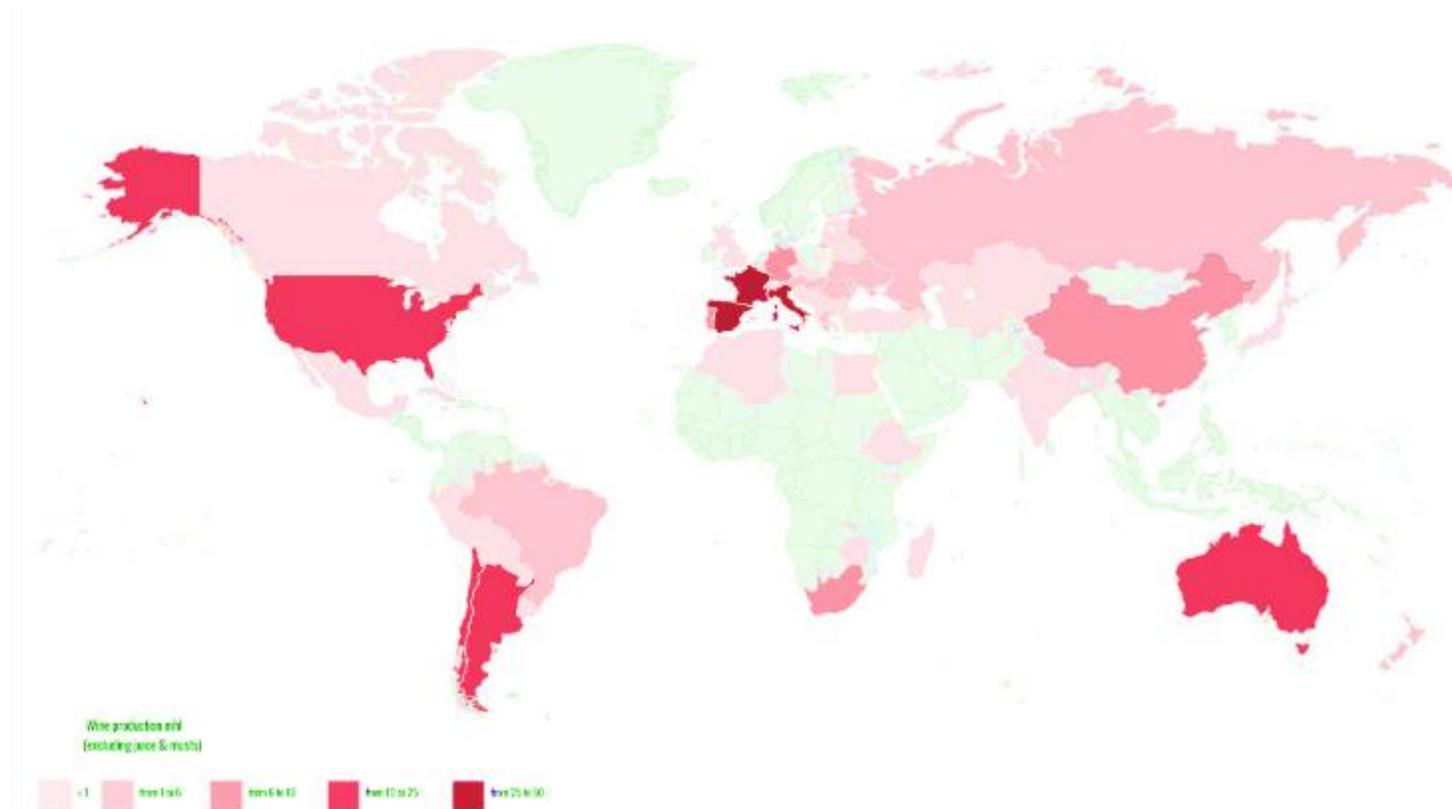
non-Member States, organizations, regions or territories



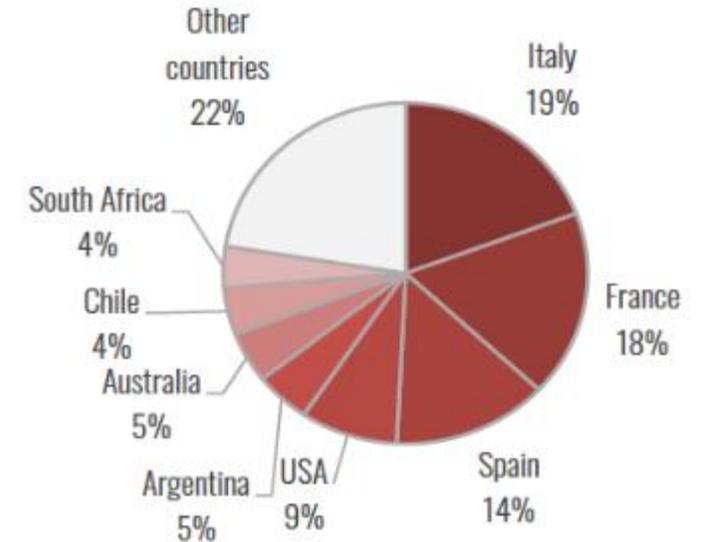


## Italy in the OIV

- ✓ Italy was among the 8 founders (France, Spain, Portugal, Greece, Hungary, Luxembourg, Tunisia)
- ✓ Italy has the current OIV Presidency, held by Prof. Luigi Moio
- ✓ Italy is the most important wine producer in the world (49.8 mhl)



Breakdown of wine production in 2022





# About the OIV

## The OIV's essential functions:

### Standards for the vitivincultural sector

Creation of internationally harmonized and accepted standards for the production of vitivincultural produce

### Research and publications

The OIV works alongside an international network of experts to contribute to innovation and advances in the vitivincultural sector on certain subjects which are at the forefront of the sector

### Databases, statistics and sector information

The OIV works with its Member States gathering data and producing statistical outlooks, and generating analytical reports on specific topics in the vitivincultural sector

### Education and communication

OIV offers research grants, patronage, literature rewards and an immersive Master Degree level management program in the wine sector

## rely on 4 units:



Viticulture



Enology



Economics and Law



Health and Safety

**OIV**



# OIV Strategic Plan 2020-2024

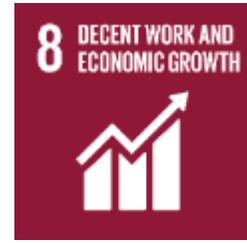
-  **AXIS I** Promote environmentally-friendly vitiviniculture 
- AXIS II Promote economic activity according to principles of sustainable development and of market growth and globalization 
- AXIS III Contribute to social development through vitiviniculture 
-  **AXIS IV** Pursue the development of a harmonized regulatory environment
- AXIS V Facilitate the digital transition of the sector
- AXIS VI Consolidate the role of the OIV as a benchmark scientific, technical, and cultural organisation worldwide





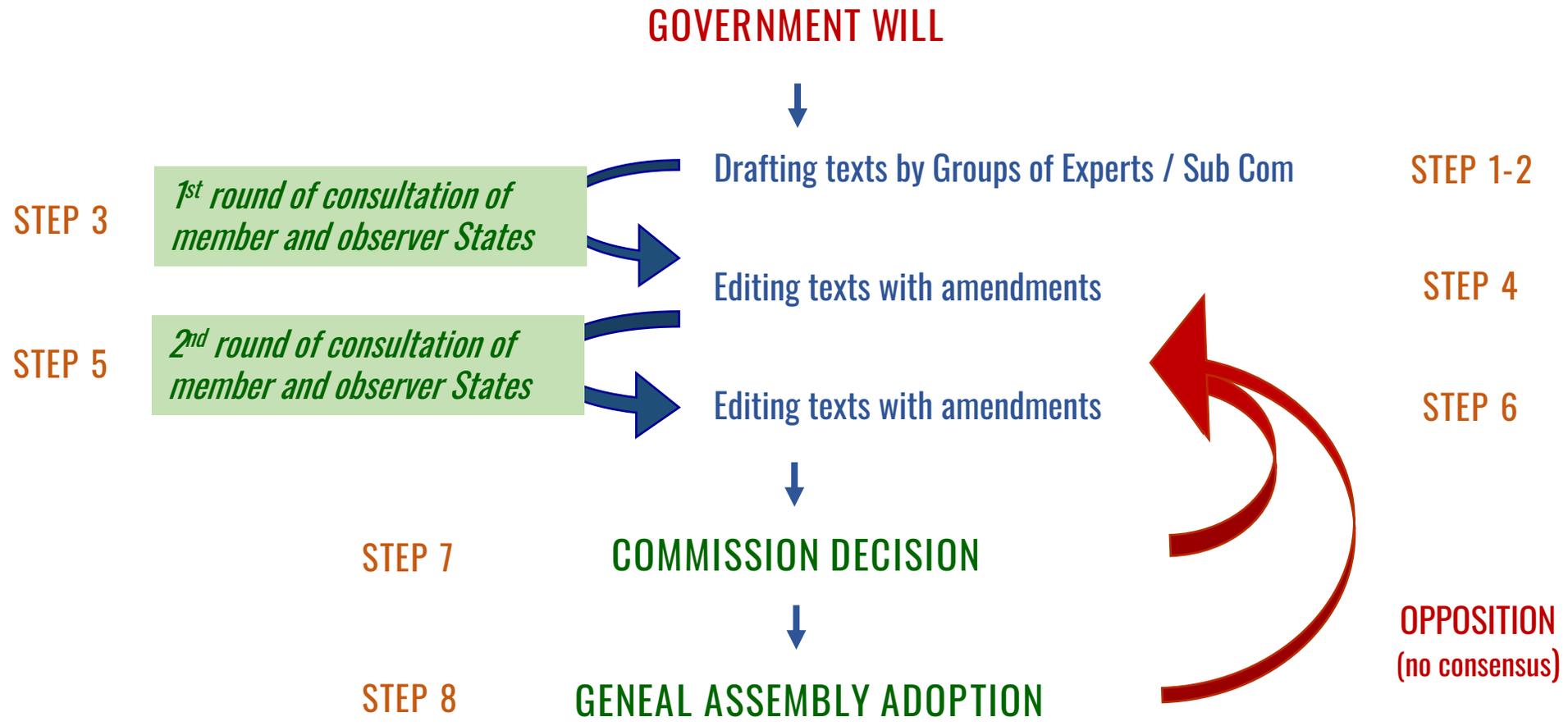
# OIV Strategic Plan 2020-2024

SUSTAINABLE DEVELOPMENT GOALS of UNITED NATIONS → 13 of 17



# STEP BY STEP DECISION MAKING PROCEDURE

Consensus is the normal method whereby the General Assembly adopts draft resolutions of a general, scientific, technical, economic or legal nature.





# OIV Scientific and Technical Committee

President: Luigi Moio (IT)  
1st Vice President: Regina Vanderlinde (BR)  
2nd Vice President: Markus Herderich (AU)  
Director General: Pau Roca (ES)

## I. Viticulture



**VITI**  
President: Ahmet Altindisli (TR)  
Vice President: Vittorino Novello (IT)  
Scientific Secretary: Christoph Hoffmann (DE)

### SCRAISIN

*(Sub-Commission Table grapes, Dried grapes and Unfermented Products)*

President: Luis Peres de Sousa (PT)  
Vice President: Alejandro Marianetti (AR)  
Scientific Secretary: Donato Antonacci (IT)

### PROTEC

*(Vine Protection and viticultural techniques)*

President: Mario de la Fuente (ES)  
Vice President: Serge Fischer (LU)  
Secretary: Elisa Angelini (IT)

### GENET

*(Genetic resources and vine selection)*

President: Elsa Gonçalves (PT)  
Vice President: Laurent Mayoux (FR)  
Secretary: Luigi Bavaresco (IT)



### SUSTAIN

*(Sustainable development and climate change)*

President: Hans Schultz (DE)  
Vice President: Jacques Gautier (FR)  
Secretary: António Graça (PT)

## II. Oenology



**OENO**  
President: Fernando Zamora (ES)  
Vice President: Dominique Tusseau (FR)  
Scientific Secretary: Valeriu Colea (RO)

### SCMA

*(Sub-Commission Methods of Analysis)*

President: Manuel Humberto Manzano (AR)  
Vice President: Markus Herderich (AU)  
Scientific Secretary: Ana Maria Ruano (ES)

### MICRO

*(Microbiology)*

President: Antonio Morata (ES)  
Vice President: Cristina Pino Villar (MX)

### TECHNO

*(Technology)*

President: Valérie Lempereur (FR)  
Vice President: Adriaan Oelofse (ZA)

### SPECIF

*(Specifications of Oenological Products)*

President: Antonella Bosso (IT)  
Vice President: Fernanda Spinelli (BR)

## III. Economy and Law



**ECO LAW**  
President: Yvette van der Merwe (ZA)  
Vice President: Dimitar Andreevski (BG)  
Scientific Secretary: Antonio Seccia (IT)

### DROCON

*(Law and consumer information)*

President: Alberto Ribeiro de Almeida (PT)  
Vice President: Theodore Georgopoulos (GR)

### FORMAT

*(Training)*

President: Conrad Briguet (CH)  
Vice President: Pascal Wegmann Herr (DE)

### BOISPI

*(Vitivinicultural spirituous beverages)*

President: Simona Lamorte (IT)  
Vice President: Jeanine Bretagne (FR)

### ECOMAR

*(Economic analysis, markets and consumption)*

President: Françoise Brugière (FR)  
Vice President: Gergely Szolnoki (DE)

### STATCO

*(Situation and Statistics)*

President: Patrick Aigrain (FR)  
Vice President: Tiziana Samari (IT)

## IV. Safety and Health



**SAFETY & HEALTH**  
President: Pierre-Louis Teissedre (FR)  
Vice President: Gheorghe Arpentin (MD)  
Scientific Secretary: Patrizia Restani (IT)

### SECUAL

*(Food Safety)*

President: Angelika Paschke-Kratzin (DE)  
Vice President: Victoria Moreno Arribas (ES)

### CONUSA

*(Consumption, Nutrition and Health)*

President: Rena Kostli (GR)  
Vice President: Arina Antocea (RO)



**QP**  
*(Qualified Persons)*  
Tony Battaglione (AU)  
Monika Christmann (DE)



# Commission VITICULTURE PROTEC Group of Experts

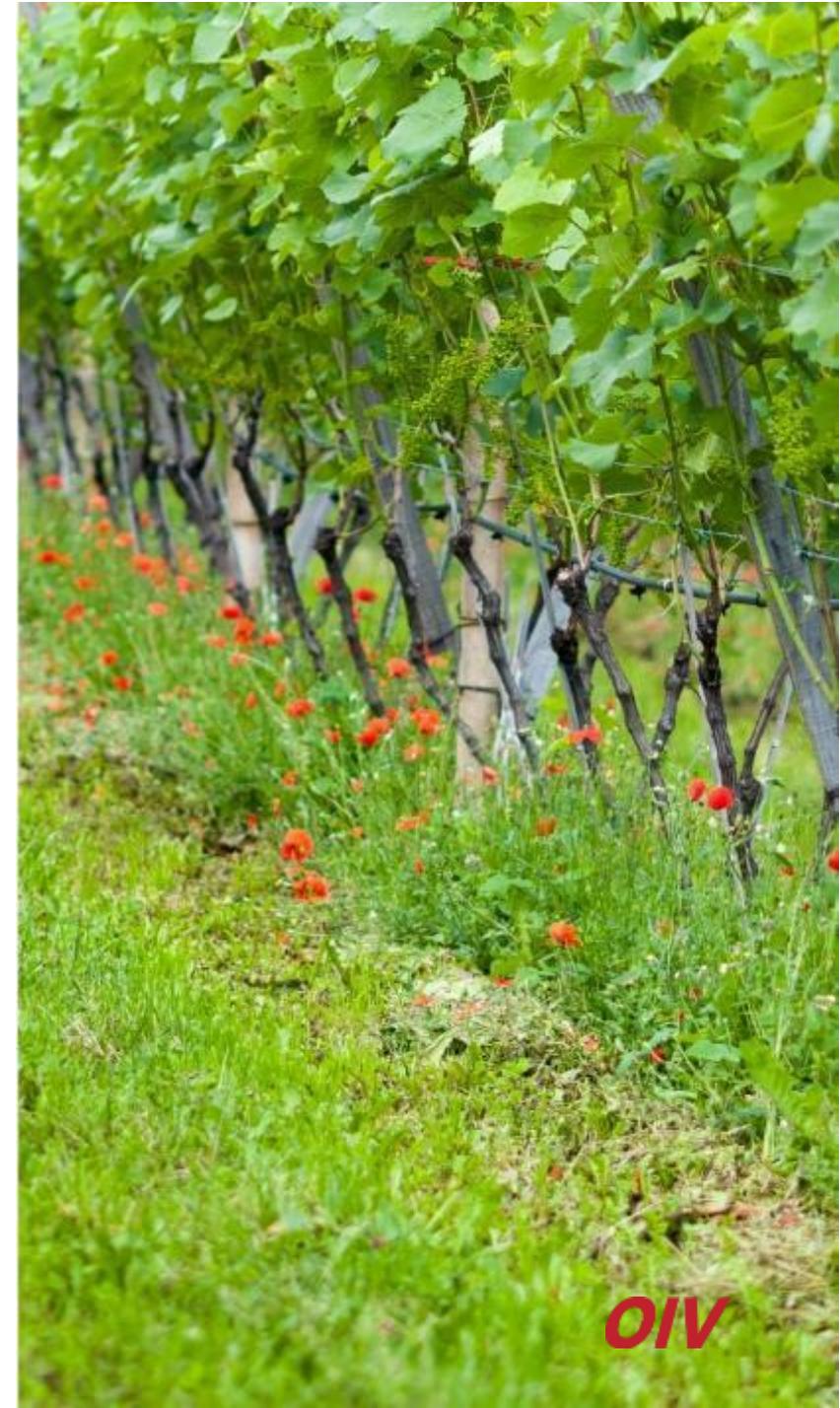
## *Vine Protection and Viticultural Techniques*

### BOARD 2022-2025

- President: Dr. Mario de la Fuente (ESP)
- Vice President: Dr. Serge Fischer (LUX)
- Secretary: Dr. Elisa Angelini (ITA)

### ITALIAN DELEGATES

- Prof. Luigi Bavaresco, UniCatt - Scientific Delegate ITA in PROTEC
- Dr. Michele Borgo, ex CREA VE - Past President PROTEC/Commission VITICULTURE
- Dr. Elisa Angelini, CREA VE
- Dr. Paolo Storchi, CREA VE
- Mr. Mario Pecile, ex CREA VE
- Prof. Vittorino Novello, UniTo
- Prof. Andrea Pitacco, UniPd
- Prof. Luigi Moio, UniNa





## Projects of Resolution

### Flavescence dorée

- Revision of the Resolution VITI 3/2006
- New Project of Resolution at step 1 on 2023-2024

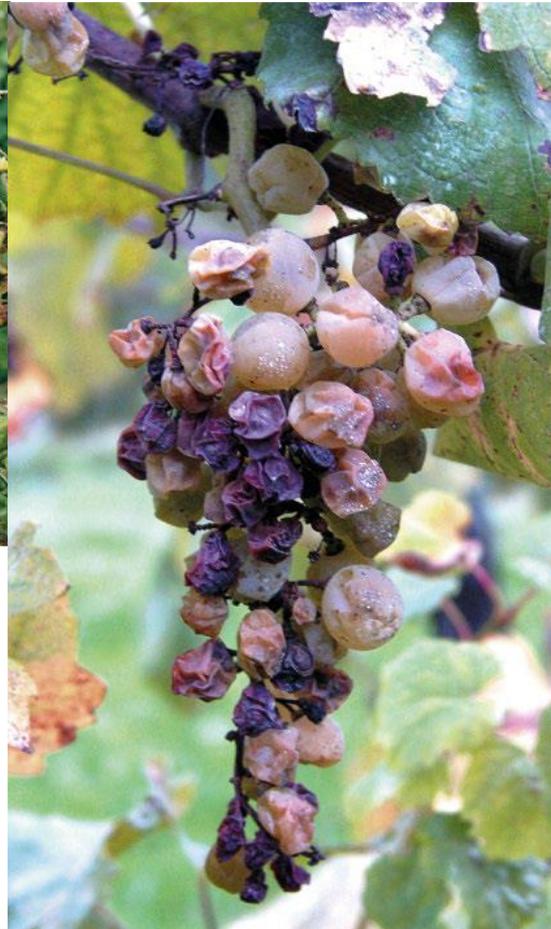
### Pierce's disease

- Project of Resolution at step 7

## Projects of Expertise Collective Document

- Flavescence dorée
- Sustainable alternatives to the use of Cu in vitiviniculture
- Use of biostimulants and vegetal extracts in viticulture
- New approaches to vineyard protection strategies: biosolutions
- Technical criteria for reducing GTDs infection in nurseries
- Berry sampling in vineyard
- Term harmonisation in training system of viticulture
- Precision viticulture definition and general criteria





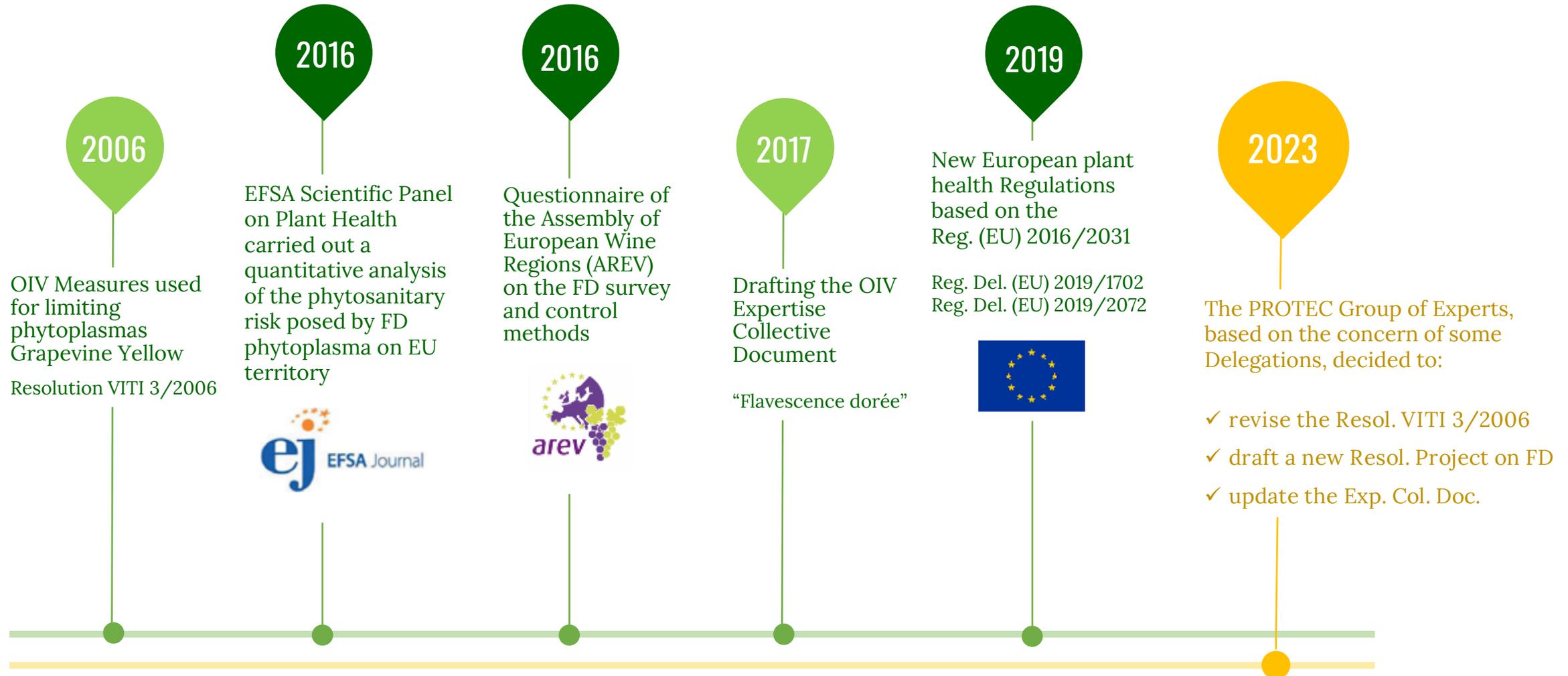
**FLAVESCENCE DORÉE**  
an extended international discussion

Photo Credit Enrico Marchesini e UO Fitosanitario Regione Veneto





# FLAVESCENCE DORÉE: an extended international discussion





## RESOLUTION VITI 3/2006 “MEASURES USED FOR LIMITING PHYTOPLASMAS GRAPEVINE YELLOW”

### CALLS UPON

- the intensifying of research on **biological control** and on the usage of therapy techniques
- studies on the role of insects susceptible to being vectors of phytoplasmas and on their biological cycle
- to define their biological pest control while considering management principles integrated in vineyards

### REQUEST

that viticulture countries respect the demands connected with sanitary and phytosanitary measures which are provided in quarantine standards and national and regional regulations.





## RESOLUTION VITI 3/2006 “MEASURES USED FOR LIMITING PHYTOPLASMAS GRAPEVINE YELLOW”

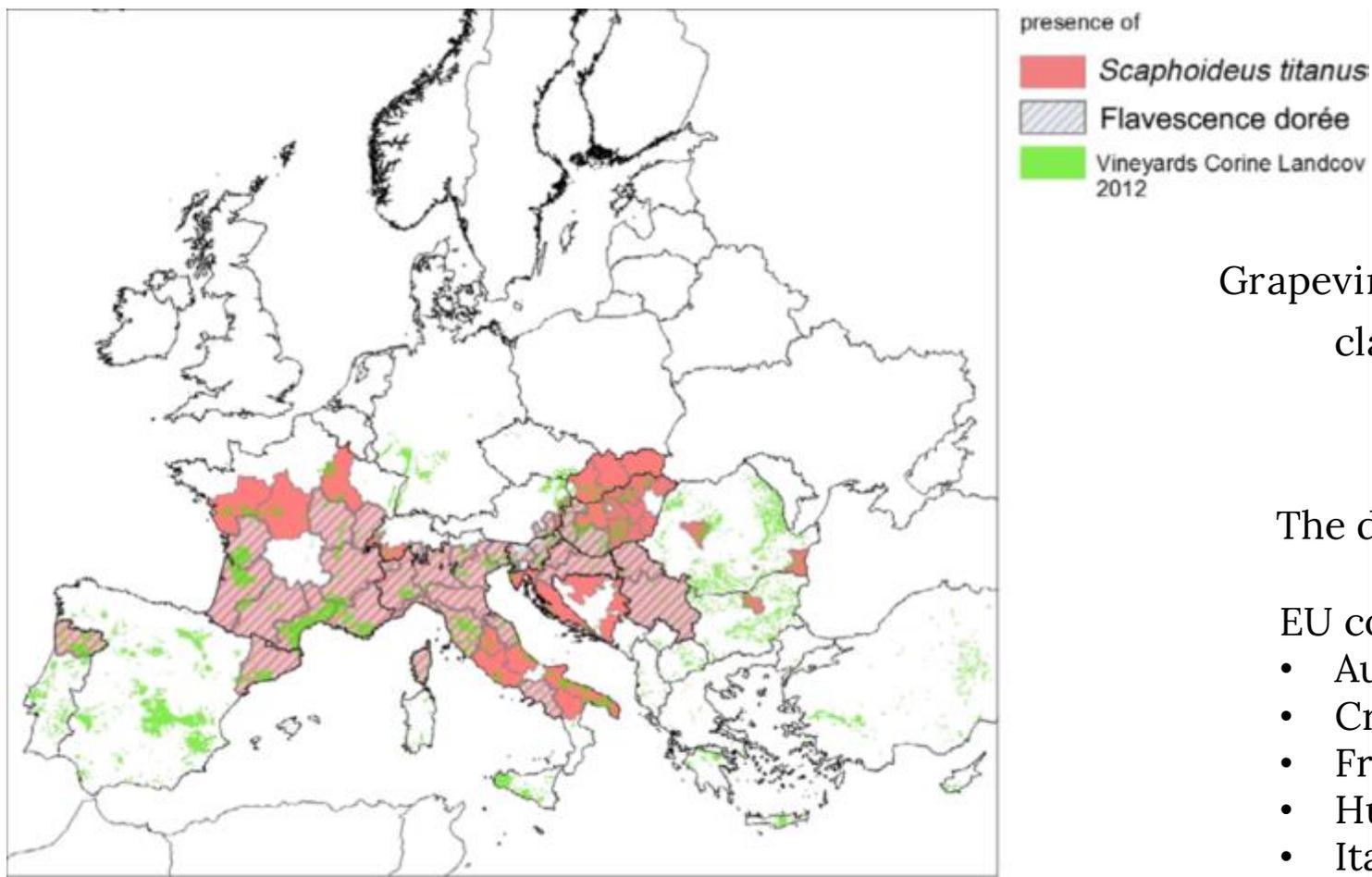
### RECOMMENDS

to adopt the following surveillance, prevention and controlling phytoplasma vector means:

- training vine farmers by making available technical documents on phytoplasmas and control methods
- maintain grapevine yellows -free mother plantations
- monitoring the presence of grapevine yellows in vines and on possible intermediary plant hosts
- surveillance and determination of origin zone and expansion of grapevine yellows
- territorial monitoring to identify population density of vectoring species
- defining strategic plan to fight against phytoplasma vectors:
  - ✓ setting up **cultivation techniques** and sustainable production, which promotes a reduction in plant hoppers
  - ✓ indications for the **proper application of treatment** products on vineyards, nurseries and mother plantations



## EFSA SCIENTIFIC PANEL ON PLANT HEALTH 2016: FD risk of spread?



In: Risk to plant health of Flavescence dorée for the EU territory  
EFSA Panel on Plant Health 2016

Grapevine flavescence dorée is a pathogen classified as a quarantine pest in all OIV member States

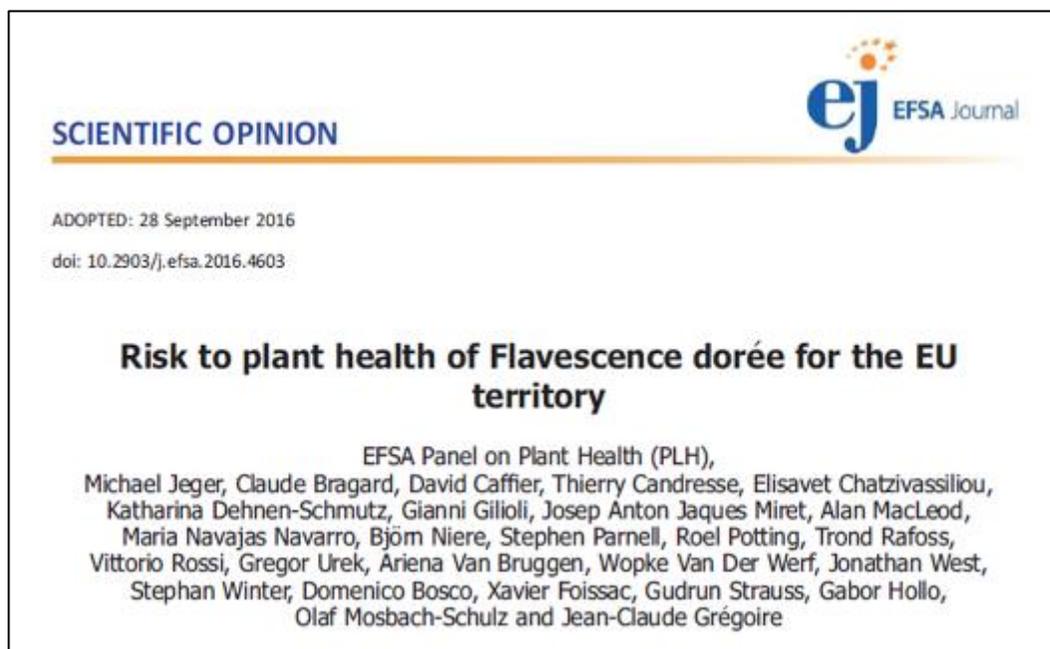
The disease is present only in Europe

- | EU countries   | Non-EU countries   |
|--|--|
| <ul style="list-style-type: none"><li>• Austria</li><li>• Croatia</li><li>• France</li><li>• Hungary</li><li>• Italy</li><li>• Portugal</li><li>• Slovenia</li></ul> | <ul style="list-style-type: none"><li>• Switzerland</li><li>• Serbia</li></ul> |



# EFSA QUANTITATIVE ANALYSIS OF THE PHYTOSANITARY RISK

The European Commission has requested to the EFSA Scientific Panel on Plant Health a quantitative analysis of the phytosanitary risk posed by *Flavescence dorée* phytoplasma on EU territory



Three scenarios were analyzed:

- Scenario A0: current measures in place
- Scenario A1: improvement of the phytosanitary status of vine propagation material (HWT)
- Scenario A2: strengthening surveillance (> 30% area) and **eradication of non-cultivated vines**

Only the spread and impact were analyzed on 10-year evolution

<http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2016.4603/full>



# EFSA QUANTITATIVE ANALYSIS OF THE PHYTOSANITARY RISK

## FD POTENTIAL SPREAD

- Scenario A0: the spread of FD should continue with an increase between 7-25 newly contaminated regions
- Scenario A1 – A2: propagation of FD is expected to be roughly similar (3-13 newly contaminated regions) but smaller than under A0
- Enhanced control scenarios, stabilization or reduction in the number of contaminated areas is **relatively unlikely**

## FD IMPACT

- Scenario A0: FD has an impact of 0.5-1% on table grape and wine production
- Scenario A1: FD would have an impact reduced by about ½ compared to A0. Generalization of **Hot Water Treatment has the largest contribution to FD impact reduction** in scenario A1 and has a high feasibility.
- Scenario A2: FD would have an impact reduced by about 2/3 compared to A0. The increase in eradication measures contributes to the reduction of the impact in scenario A2, but the overall feasibility is lower, in particular **abandoned vineyards and wild grapevine populations**.





## EFSA RECOMMENDATIONS IN ORDER TO LIMIT THE DISEASE DISTRIBUTION

- Surveillance of the vector and supporting decisions on insecticide application and timing
- Hanging yellow sticky traps in the vineyards and/or
- Direct counting of nymphs in the leaf canopy
- Compulsory insecticide application at least where the vector and infected vines are present (which is particularly effective as the vector is monophagous on *Vitis* spp.):
  - applied in commercial vineyards and nurseries
  - targeting nymphs and adults
  - from 1 to 3 application per year in commercial vineyards (more than 3 in nurseries)
- Control of the vector in amenity plants (vine arbors and hedges)
- Roguing of symptomatic plants
- Roguing of the vineyard when infection rate exceed 20–30% of the plants in a plot
- Removal of abandoned plots and wild *Vitis* spp. rootstock
- Regular testing in rootstock nurseries
- Hot Water Treatment of rootstocks, scions or grafted cuttings is widely applied (Thermotherapy is known to be effective in killing both infected vines and vector eggs)



# QUESTIONNAIRE by AREV on 2016: FD SURVEY and CONTROL METHODS

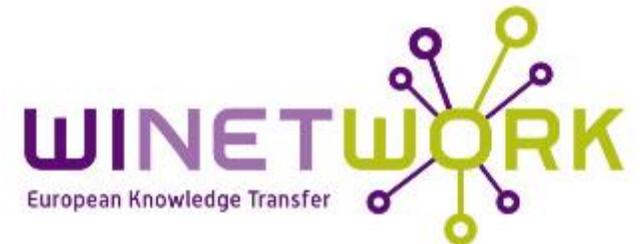
## SURVEY SCOPE

- Survey amongst the 70 regions members of AREV (22 answers)
- Survey amongst the 46 Member States of OIV (13 answers)
- Partnership within H2020 **Winetwork Project** on FD (10 Regions from 7 EU States)



## SURVEY AREAS

- Presence of the disease
- Regulatory framework
- Surveillance strategies of the disease and the vector
- Rouging off methods
- Vector control
- Surveillance and disinfection methods for the propagation material
- Use of hot water treatment
- Research programs to improve management techniques





## AREV SURVEY OUTCOMES

Different methods of eradication or containing measures among countries:

### A. PROPAGATION MATERIAL MANAGEMENT

Fairly uniform in the EU thanks to the regulations for issuing the European Plant Passport

#### Differences

- Monitoring rate of mother plants
- Use of hot water treatment (no HWT, HWT for curative purposes only, HWT for preventive purposes following an assessment of the risk of contamination of mother plants or nurseries)

### B. DISEASE MANAGEMENT IN THE VINEYARD

Very ununiform among countries: infected vineyards are uprooted based on an uprooting threshold (generally 20%, up to 30% in some Italian regions)

#### Differences

- Vineyard monitoring rate
- Monitoring site (vineyards, small amateur vineyard, uncultivated/wild vines)
- Implications of professional and technical structures



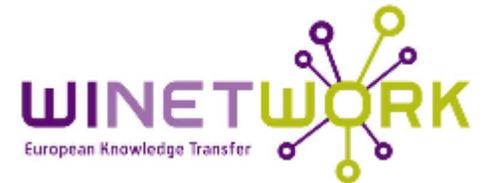


## WINETWORK PROJECT OUTCOMES

- ✓ Advanced control strategies, which have been taken by some Regions, have shown their **efficiency for its containment, even its eradication**
- ✓ These advanced control strategies require to reduce insecticide use and increase control efficiency, with **support of decision-making tools** and **implementing rules**
- ✓ No measures in the Reg. (EU) 2016/2031, concerning advanced control strategies except for protected areas
- ✓ The research works on alternative sustainable strategies have not yet demonstrated decisive results to be applied to the European level



Development of a OIV Collective Expertise Document on a single advanced control strategy according to shared experience and research results of experienced specialists





## 2017: FIRST DRAFT OF THE OIV EXPERTISE COLLECTIVE DOCUMENT “FLAVESCENCE DORÉE”

### CONSIDERATIONS

The Experts of PROTEC Group have to devote full attention to:

- apply the **large-scale monitoring** of disease and vector
- protect the propagation material
- **limit insecticide treatment** as necessary
- develop alternative sustainable methods or strategies
- take into account **wild and abandoned** vines



### OBJECTIVES

- ✓ to provide an overview of current scientific knowledge
- ✓ to assess the risk of flavescence dorée being introduced
- ✓ to prevent flavescence dorée from becoming established



## 2017: FIRST DRAFT OF THE OIV EXPERTISE COLLECTIVE DOCUMENT “FLAVESCENCE DORÉE”

1. INTRODUCTION
2. STATE OF KNOWLEDGE OF THE DISEASE AND ITS VECTOR
3. **RISKS OF FLAVESCENCE DORÉE SPREAD**
  - 3.1 By propagation material
  - 3.2 By vectors
  - 3.3 By any other sources
4. **MEASURES TO PREVENT** THE INTRODUCTION OF FLAVESCENCE DORÉE INTO PEST FREE AREAS
5. MEASURES TO BE TAKEN IF FLAVESCENCE DORÉE IS SUSPECTED OR DETECTED
6. CONCLUSIONS
7. BIBLIOGRAPHY
8. ANNEXES
  - Annex 1: Vector surveillance in pest free areas
  - Annex 2: Sensitivity of vine varieties



# NEW EUROPEAN PLANT HEALTH REGULATIONS

## REGULATION (EU) 2016/2031 OF THE EUROPEAN PARLIAMENT OF THE COUNCIL of 26 October 2016 on protective measures against pests of plants

Objective: to harmonize European plant health practices to protect the territory of the EU from the introduction and spread of organisms harmful to plants.

- ✓ Priority Quarantine Pests (PQP) vs Regulated Non Quarantine Pests (RNQPs)
  - ✓ **Flavescence dorée phytoplasma = Union Quarantine Pests** ≠ Priority Pests:
    - the harmful organism is not present in the territory of the EU or, if present, is not widely distributed
    - its entry, establishment and dissemination would have an unacceptable economic, environmental or social impact
    - eradication or confinement + at least annual survey



## NEW EUROPEAN PLANT HEALTH REGULATION RECEPTION IN ITALY

SINCE 2016

- ✓ Reg. UE 2016/2031 del Parlamento Europeo e del Consiglio, relativo alle “misure di protezione contro gli organismi nocivi per le piante”
- ✓ Reg. UE di esecuzione 2019/2072 della Commissione che classifica la Flavescenza dorata “patogeno da quarantena rilevante per l’Unione”



- ✓ Decreto Legislativo n. 19 del 2 febbraio 2021, recante le “norme per la protezione delle piante dagli organismi nocivi”
- ✓ Reg. UE di esecuzione 2022/1630 che stabilisce misure per il contenimento di FD all’interno di determinate aree delimitate in cui non è possibile l’eradicazione

SINCE 2000

- ✓ Decreto Ministeriale n. 32442 del 31 maggio 2000 recante “misure per la lotta obbligatoria contro la Flavescenza dorata della vite”



- ✓ Decreto dei SFR con cui sono dettate annualmente le misure di contenimento per tutti i territori regionali:
  - a. interventi insetticidi contro il vettore, la cicalina *S. titanus*
  - b. accorgimenti colturali (capitozzatura ed estirpo)
- ✓ Linee guida SFN (MASAF) del dicembre 2022, per i viticoltori, ai fini del contrasto della Flavescenza dorata sul territorio nazionale



## FLAVESCENCE DORÉE: THE INCREASING CONCERN

On March 2023, PROTEC Group of Experts, based on the proposal of concerned Delegations (Italy, France, Portugal, Spain, Germany, Swiss),

### DECIDED TO:

1. Revise the Resol. VITI 3/2006
2. Draft a new Resol. Project on FD
3. Update the Exp. Col. Doc. in progress





## FLAVESCENCE DORÉE: THE LEADING CONSIDERATIONS

### CURRENT CONCAUSES

- ✓ Withdrawal of very effective and persistent insecticides (Buprofezin, Thiamethoxam, Chlorpyrifos)
- ✓ Limited efficacy and persistence of the insecticides available for control, both in organic viticulture and in conventional viticulture
- ✓ Less qualified viticulturists, who do not carefully apply the necessary phytosanitary and cultural measures
- ✓ Fictitious viticulture associated with uncultivated and non-productive vineyards
- ✓ Abandoned vineyards (suspended hereditary successions, etc.)



# FLAVESCENCE DORÉE: THE LEADING STRATEGIES

## SHORT TERM STRATEGY

1. **Extended discussion** among the concerned member States, especially on certain relevant aspects
2. **Harmonized** and common approach



## MID/LONG TERM STRATEGY

- Sector **synergy** for the involvement of low-skilled or defaulting winegrowers and for the territorial monitoring of vector insects and disease
- Mandatory technical **training** and information
- Identification and management of **untreated vineyards** (with insecticides against the flavescence vector) resulting from compliance with the requirements for the insecticide application
- National and international **coordination of research** in order to avoid redundancy of activities and fragmentation of resources

ANY VIRTUOUS EXAMPLES ???



# FLAVESCENCE DORÉE: THE FRENCH ACTIONS

PLAN NATIONAL  
DÉPÉRISSEMENT DU VIGNOBLE



## National Plan on the vineyard decline

<https://www.plan-deperissement-vigne.fr>

## Official network for the FD survey and controls on the mandatory treatments

<https://www.stop-flavescence-bourgogne.fr>

Flavescence  
Dorée Bourgogne

LA MALADIE & SON VECTEUR ACTUALITÉS DOCUMENTS FAQ CONTACT

Une gestion aménagée de la Flavescence Dorée grâce à une analyse de risque précise et une mobilisation de la profession exemplaire.

## ZNT RIVERAINS, LA DISTANCE PRÔNÉE PAR LES ONG REPRÉSENTE 29 % DE LA SAU

Éloi Pailloux - 5 janvier 2023 - Charte de protection des riverains, Zones de non traitement ZNT

Dans une étude, datée du 6 décembre 2022, des chercheurs d'Inrae et d'AgroParisTech ont recoupé des données parcellaires pour évaluer les surfaces concernées par différentes distances de ZNT riverains, de 10 à 150 mètres. Dans ce dernier cas, souhaité par des ONG environnementales, c'est 29 % de la SAU française qui seraient concernés.

<https://agriculture.gouv.fr/letat-met-en-consultation-du-public-les-textes-revisant-le-dispositif-des-zones-de-non-traitement>

## Identification and management of untreated vineyards

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**INTERNATIONAL ORGANISATION  
OF VINE AND WINE**

**GRAZIE PER L'ATTENZIONE**

**Enrico BATTISTON**

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***OIV***