

RIGENESI

SCIENCE DIPLOMACY & COMMUNICATION FOR OLIVE SECTOR REGENERATION

Iniziativa realizzata nell'ambito dell'Accordo di Cooperazione tra Regione Puglia e CIHEAM Bari per l'attuazione del "Piano straordinario per la rigenerazione olivicola della Puglia", art. 18 "Comunicazione e Informazione" - Azione 4.2

Initiative in the framework of the Cooperation Agreement between Regione Puglia and CIHEAM Bari for the implementation of the "Extraordinary Plan for the Regeneration of Olive Growing in Puglia," Article 18 "Communication and Information" – Action 4.2.



Dott. Pierfederico La Notte

E-mail: pierfederico.lanotte@cnr.it

Communication and awareness campaigns – Citizen science



RIGENESI

SCIENCE DIPLOMACY & COMMUNICATION FOR OLIVE SECTOR REGENERATION



114 YEARS AFTER PHYLLOXERA (1899), XYLELLA (2013)



THIS TIME IN PUGLIA WE ARE ON THE FRONT TO FIND SOLUTION AND PROTECT MEDITERRANEAN COUNTRIES

..... AND TO LEARN LESSONS FOR THE FUTURE

- Themes of Communication/Information
- Analysis of events during the epidemic and actor's scenario
- Information VS Miss-information
- Instruments for the Communication/Information
- Change in strategy and perspectives
- Some examples of Citizen Science

Actors

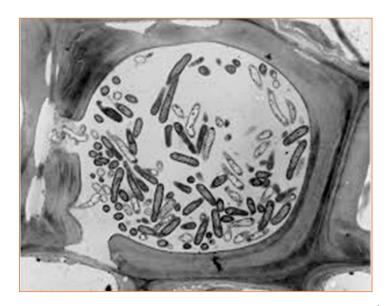
- Politicy (UE, National, Regional) for Regulation/Funding
- Administration (UE, National SFN, Regional SFR, local Administration)
- Media national/international (press, TV, radio, etc.)
- Reaserch and training Institutions
- Agriculture Stakeholder (Olive growers and other farmers / Farmer's Organizations / Oil producers/Oil industry/Nursery Industry)
- Tourism operators and other economic operators
- Volunteers, Associations and Public opinion
- Normal Citizen

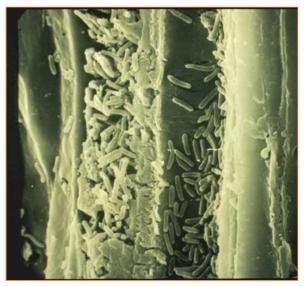
ROLES, FUNCTIONS, RESPONSABILITIES, ACTIVITIES, ACTIONS, BEHAVIOUR, NEEDS, COMMUNICATION, INTERACTIONS

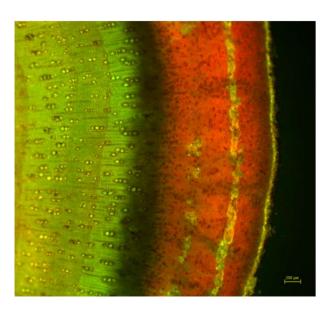
Themes of the communication/Information

- The diseases, the agents, sympthoms, host range, transmission
- Origin and evolution of epidemic
- Impacts of epidemic
- Research contributes
- Legislation / Eradication / Containment Measures
- Compensation and regeneration Measures
- Regeneration

Xylella fastidiosa is an asporogenous, gram-negative bacterium It grows with difficulties in vitro in pure culture



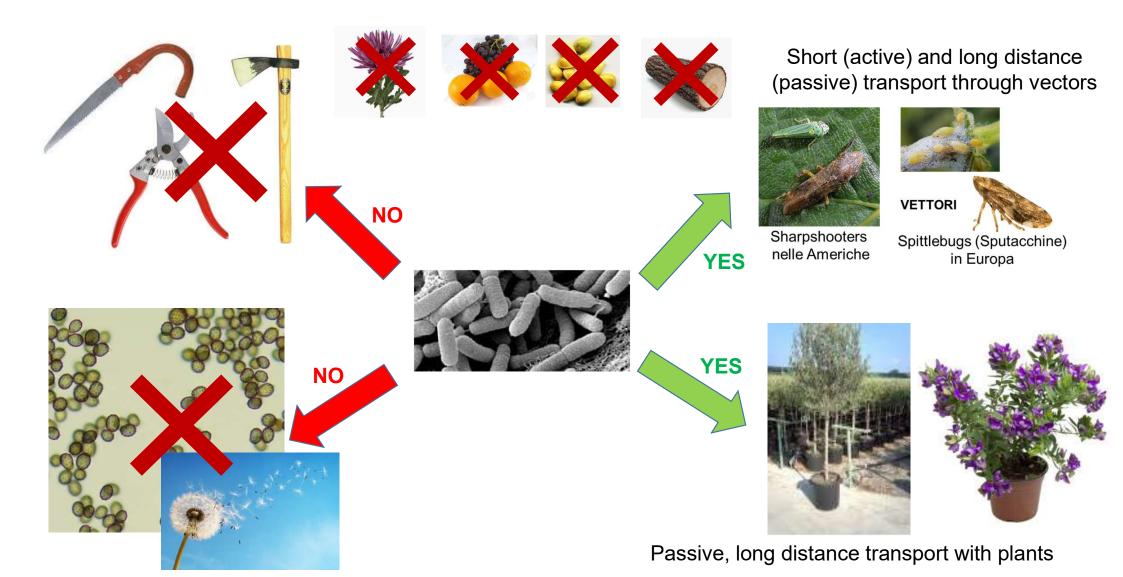




It lives just in the xylem vessels

Wide range of natural hosts variable with the 5 subspecies (fastidiosa, multiplex, pauca, sandy, morus):
Hundreds of host plant species of >80 families

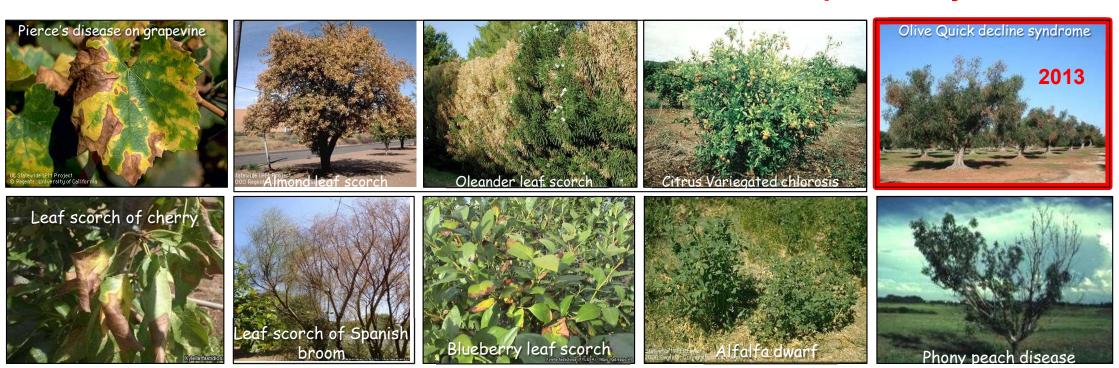
Worldwide a cure still lack



Diseases caused by X. fastidiosa

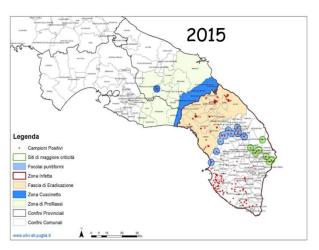
- Symptoms are similar to extreme <u>water stress</u>: leaf scorch, wilting of foliage, withering of branches, dieback, desiccation, stunting, death of the plant.
- The pathogenicity include occlusion of the vessels (cells + biofilm) and host-response (tylose, callose, etc)
- BUT most plants remain **ASYMPTOMATIC**

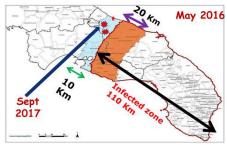
Worldwide still lack a CURATIVE product/system









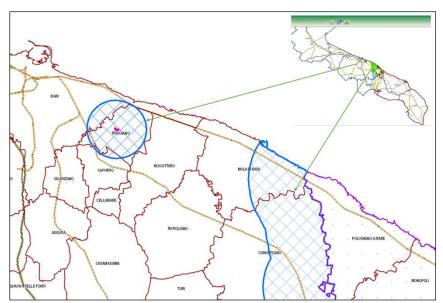


2016 demarcated area >500.000 hectars (ca. 20 milion of olives)

Monitoring 16/17 About 870 infected plants Monitoring 17/18 About 3.800 infected plants



From May 2018 over 770.000 hectars (around 40% of Apulia Region area)







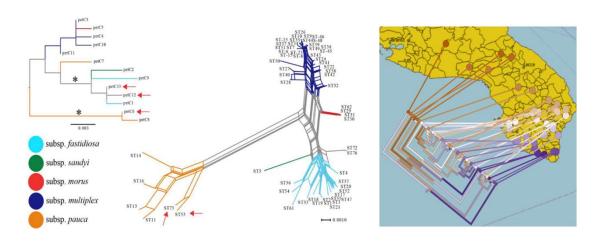
Specified plants sensible to Xylella fastidiosa subsp. pauca ST53

To January 2022

- 1. Acacia saligna (Labill.) Wendl.
- 2. Asparagus acutifolius L.
- 3. Catharanthus sp.
- 4. Chenopodium album L.
- 5. Cistus creticus L.
- 6. Dodonaea viscosa Jacq.
- 7. Eremophila maculata F. Muell.
- 8. Erigeron sumatrensis Retz.
- 9. Erigeron bonariensis L.
- 10. Euphorbia terracina L.
- 11. Grevillea juniperina L.
- 12. Heliotropium europaeum L.
- 13. Laurus nobilis L.
- 14. Lavandula angustifolia Mill.
- 15. Lavandula stoechas L.
- 16. Myrtus communis L.
- 17. Myoporum insulare R. Br.
- 18. Nerium oleander L.
- 19. Olea europaea L.
- 20. Pelargonium x fragrans
- 21. Phillyrea latifolia L.
- 22. Polygala myrtifolia L.
- 23. Prunus avium (L.) L.
- 24. Prunus dulcis (Mill.) D.A. Webb
- 25. Rhamnus alaternus L.
- 26. Rosmarinus officinalis L.
- 27. Spartium junceum L.
- 28. Vinca sp.
- 29. Westringia fruticosa (Willd.) Druce
- 30. Westringia glabra L.
- 31. Hebe spp.
- 32. Dimorphoteca fruticosa (L.) Less.
- 33. Euphorbia chamaesyce L.
- 34. Amaranthus retroflexus L.
- 35. Pistacia vera L. (giugno 2021)
- 36. Jasminus azoricum (gennaio 2022)

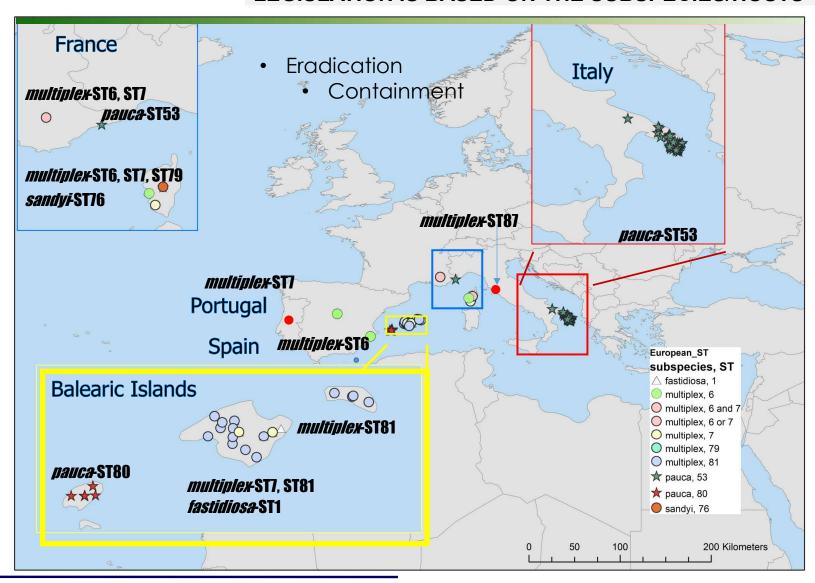
Host species of Xylella fastidiosa subsp. Pauca ST53

In Salento a single/unique sequence type ST53 of the sub-species pauca, originary from Costarica (Central America)



The results indicate that the epidemic started from a single accidental event of introduction, quite recent (2008)

LEGISLATION IS BASED ON THE SUBSPECIES/HOSTS



Impacts of epidemic











Control measures

EARLY DETECTION

Mandatory monitoring/surveillance program

REDUCE INOCULUM PRESSURE

Removal infected plants
Planting resistant species/cultivars

VECTOR CONTROL

Management of the ground vegetation. Insecticide applications for adults

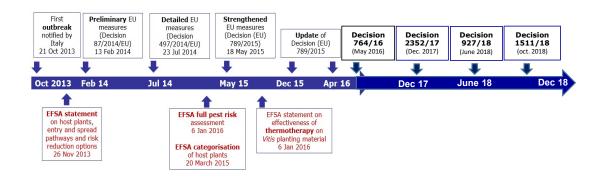


Screening test(s) Serological tests (IF, DTBIA, ELISA) Conventional PCR/ real-time PCR test/LAMP









Legislation (78 laws in 5 years)

- European (9 Decisions of the Commission+ 1 Resolution of European Parliament)
- National (1 DL + 11 DM + 3 Delib. Consiglio Ministri + 5 Ordinanze Capo Protezione Civile)
- Regional (3 Leggi Regionali + 12 Delib. Giunta Reg. + 14 Determ. Dirig. Sezione Osservatorio Fitosanitario + 16 Det. Dir. Serv. Agric. + 1 Det. Dir. Serv. Alim. + 1 Atto Dirig. + 1 Linee Guida)



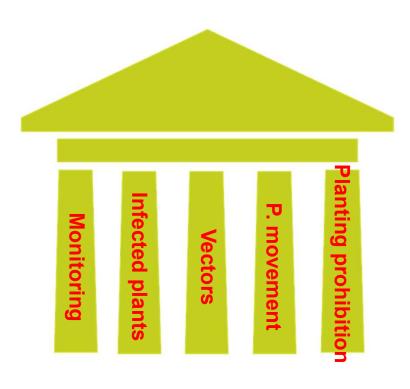
Decreto n 4999 del 13/02/2018 relativo a: "Misure di emergenza per la prevenzione, il controllo e l'eradicazione di Xylella fastidiosa (Well et all) nel territorio della Repubblica Italiana".

THE SPREAD OF EPIDEMIC CONTINUES FOR OPPOSITION, PROBLEMS AND LIMITATIONS IN THE APPLICATION OF CONTAINMENT

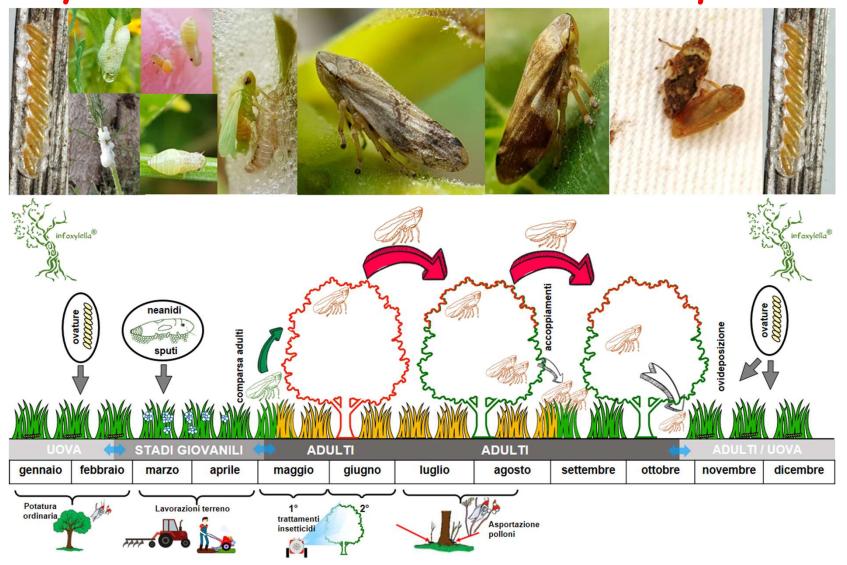


- 1. Monitoring and Surveillance every year
- 2. Control of vectors (mechanical / chemical)
- 3. Elimination of the inoculum sources (the infected plants)
- 4. Prohibition of the movement of "host" and "specified" plants (very strong restrictions on nursery activity)
- 5. Prohibition of planting the "host" species in the "infected area" (with the exception of resistant species / varieties)

on 5 PILLARS



Life cycle and control of the vector P. spumarius





The Research contribute















Aiaccio (Corse FR)







Online





Research lines finalized to the containment / control of the epidemic:

- 1. Control of the vector (with different strategies)
- 2. Resistant or tolerant varieties
- 3. Resistant seedling
- 4. Overgrafting
- 5. Antibacterial molecules (i.e. NAC, tested also by endotherapy)
- 6. Inductors of resistance
- 7. Indigenous bacteriophage viruses
- 8. Endosymbiotic antagonists
- 9. Nanocarriers
- 10. etc











- Three 4-years H2020 Projects
- "Pest Organisms Threatening Europe" (POnTE), (1 nov 2015, 25 partners of 13 Countries)
- "Xylella Fastidiosa Active Containment Through a multidisciplinary-Oriented Research Strategy" (XF-ACTORS) (1 Nov. 2016, 29 partner of 14 Countries)
- "Beyond Xylella, Integrated Management Strategies for Mitigating Xylella fastidiosa impact in Europe" (BEXYL) (Aug. 2016, 31 partners)

A significative effort: over 15 millions Euro dedicated to Xylella only for the Horizon projects



Cvs Leccino & FS17 were observed to resist to the disease







STATEMENT

ej ersa Journal

Susceptibility of *Olea europaea* L. varieties to *Xylella fastidiosa* subsp. *pauca* STS3: systematic literature search up to 24 March 2017

European Food Safety Authority (EFSA)

Andrea Baú, Alice Delbianco, Giuseppe Stancanelli and Sara Tramontini

bstract

IPSN was requested by the Eurocean Commission to produce a report on the successibility of demital and a second control of the control of t

Keywords: Apulian strain, CoDIRO, cultivar, DistillerSR, clive, resistance, tole

Requestor: European Commission

Question number: EPSA-Q-2016-00445

Correspondence: alpha@efsa.europa.eu

• STATO DELIVARTE E PROSPETTIVE FUTURE

Resistenza a *Xylella fastidiosa* in diverse cultivar di olivo

OSSERVAZIONI E RLIEVI di cu di siaggi disgrissio effettuati si dina urirana fortimenta infetta di si Affekti femano i fenomeni di missioni si precedenti stati silita chilare i loccino e nefondiano na PS-17º urilandone a potenziale fonte di missione Al contraco, si reflorano e ne necione sa Infeneta Al contraco, si reflorano e ne necione sa Infeneta le sondalità di transfanione sindie ta hanetti vattari quali in spottarchia (Milarena opronarios) hanno fatto o castemano spottariosi hanno fatto o castemano spottariosi presentano gli chia sonza di contenioresso e sulla sonza di sobalani che conventano si conventano sunteniolice con il battori della sonza di contenioresso si conventano sunteniolice con il battori la discissione di conteniore di la sonza la sonza di conteniore di conteniore di con-

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A CURA DI

Distretto Agroalimentare di Oualità Jonico-Salentino - DAJS

stituto Agronomico Vediterraneo - CIHEAM-Bar Iniversità del Salento

IPSP-CNR Bai

Università degli Studi Bari Aldo More Politecnico di Ba

CMCC - Leco

PROGETTO DI RICERCA & SVILUPPO

RIGENERAZIONE

SOSTENIBILE

DELL'AGRICOLTURA NEI TERRITORI COLPITI DA XYLELLA FASTIDIOSA

Progetto Definitivo



DAJS Distretto Agroalimentare di Qualità Jonico Salentino















Partners: DAJS, IAMB, IPSP-CNR, UNIBA, UNISAL, POLIBA, CMCC

Gen. 2021 / Set. 2023 Budget: 5M€ (finanziato al 100%)

IPSP-CNR



TASK1.3 ANALISI DI PICCOLE ESPERIENZE COLTURALI ALTERNATIVE E ALTRE SITUAZIONI DI RIGENERAZIONE / RICONVERSIONE AGRICOLA E RURALE

TASK1.4
OLIVO E OLTRE. IMPATTI DELLA XYLELLA SUI SISTEMI
PRODUTTIVI E SCENARI DI CONVIVENZA CON IL
BATTERIO



ALTERNATIVE SPP PATHOGENETIC TEST

Transmission with
Vectors under
controlled conditions

<u>Check</u> immunity/susceptibility/resistance to Xf subsp. pauca ST53 Monitoring and PCR analysis of a representative sample (up to 100 plants) from the Infected Area









P. spumarius on Passiflora plant

Insect collection

Acquisition process and transmission test

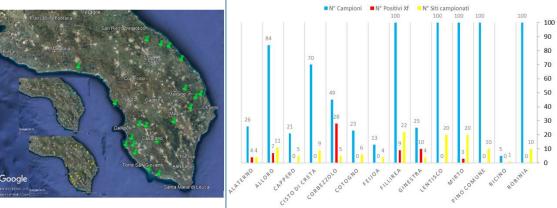
13 Tree Species/Crops

Non-hosts of Xf (n. 3) / hosts of different subspecies of Xf (n. 10)

Argan , Mango, Passionflower /

Fig, Ash, White Mulberry, Black Mulberry, Jojoba , Lime,

Blueberry, Grapefruit, Blackberry, Cork Oak



14 Tree Species/Crops Widespread in Salento

812 samples / from 131 locations

Non-hosts of Xf (n.7) / Hosts of different subspecies (Strawberry tree) / Hosts of the Salento ST53 strain (n.6)

Caper, Quince, Feijoa, Mastic, Pine, Castor Oil, Black Locust / Strawberry Tree ² / Alaternus, Laurel, Cistus, Phillyrea, Broom, Myrtle

² Also guest of Pauca ST53 (Communicated to the Phytosanitary Service)

Analysis of events during the epidemic and actor's scenario

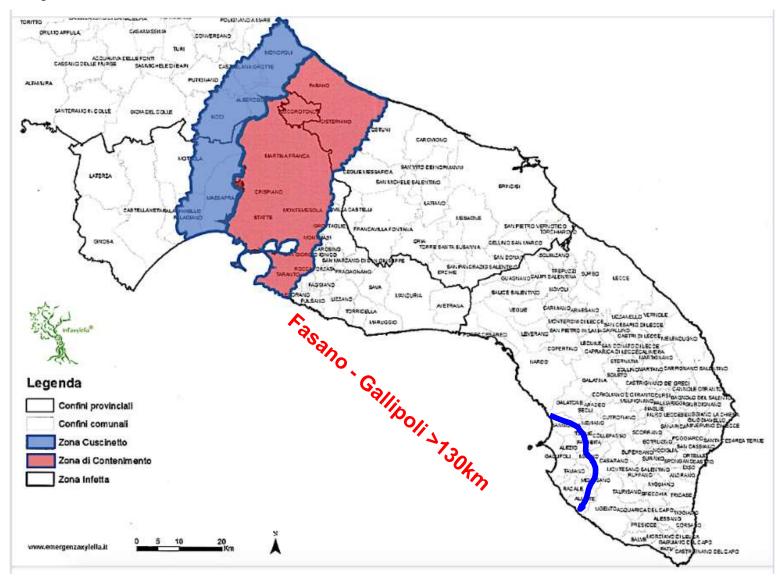


from 8.000 to 800.000ha (40% of Apulia territory)

interested about 25/60 milions of olive trees

up to now estimated more than 1,5 billion € of direct damages

May 2019





In 2014 the Government establishes a state of Emergency and appoints a Civil Protection Commissioner to implement a containment plan. Gen. Silletti, with the help of a technical scientific board, defines and starts the action plan.

Popular protests are on the way, those exposed to the Public Prosecutor's Office and appeals to the TAR and the European Court of Justice, to block selective uprooting of infected plants on the epidemic front.

Birth of groups and pages on Facebook with positions of rejection / conspiracy



















Raccolta donazioni per bloccare il Piano Silletti bis | Il Popolo degli Ulivi







L'Aiab Puglia, inoltre, ha aperto nella filiale di Banca Etica un conto dedicato al "Decreto Martina" – Iban: ITELE – per finanziare eventuali ricorsi e danni subiti dai piccoli produttori. "Segnaliamo a questo proposito

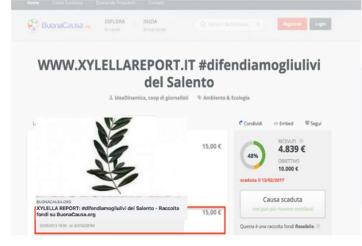


Raccolta fondi da impiegare per:

- le azioni legali, necessarie a contrastare questa Delibera
- le sperimentazioni scientifiche negli oliveti tradizionali che sono una dimostrazione vivente dell'infondatezza dell'emergenza Xylella















In total 46 (some still open) appeals to the Regional Administrative Court with an average waiting time of 2 years for sentences. 27 rejected or inadmissible or inadmissible with legal fees charged to the applicants. Presented not only by companies but also by Mayors

1 Judgment of the European Court of Justice which judged the control / containment measures to be legitimate (March 7, 2019)

Last TAR ruling that rejects the appeals of CODACONS and other 9 associations against the DGR 1890/18 and the Ministerial Decree 4999 "Martina"





A conspiracy campaign of certain popular media and parties push the protests































A retired researcher : «La bufala Xylella: non è il batterio a uccidere gli ulivi»

"The fake news Xylella: it is not the bacterium that kills the olive trees"



MANIFESTAZIONE



BARI 14 GIUGNO

Partenza del corteo: Ore 9:00 - Sede della RAI, Via Dalmazia, 104

DIFENDIAMO IL PAESAGGIO E L'ECOSISTEMA L'ECONOMIA LOCALE E IL CLIMA

INFO: 327 207 1702

Abbattimenti incontrollati di ulivi secolari
e utilizzo di pesticidi neurotossici produrranno
DEFORESTAZIONE, DESERTIFICAZIONE E AVVELENAMENTO
Fermiamo questa follia,
per il nostro territorio, la nostra economia
e l'EMERGENZA CLIMATICA

19 December 2015

The Lecce Public Prosecutor investigates 10 people including the Commissioner (who will resign), public officers and 4 researchers; he seizes all the plants in the provinces of Lecce and Brindisi (including those infected to be uprooted)



nature

Explore content > About the journal > Publish with us >

nature > news > article

Published: 01 June 2015

Scientists blamed for olive-tree ruin

Alison Abbott

<u>Nature</u> **522**, 13–14 (2015) | <u>Cite this article</u> **223** Accesses | **5** Citations | **516** Altmetric | Metrics

Police investigate researchers' role in devastating bacterial epidemic.

Italian scientists vilified in wake of olive-tree deaths

https://www.nature.com/articles/nature.2015.17651



Sabato, 19 dicembre 2015

Xylella, sequestro degli ulivi Emiliano: 'Una liberazione!' Xylella, sequestration of the olive trees. Emiliano "A liberation"

March 2016. Emergency status ends. The Puglia Region issues the «Mandatory Containment Measures», indeed not very much applied both in 2016 and 2017, and launches in September 2016 an extensive monitoring program.

Inchiesta Xylella, il giudice dispone l'archiviazione per i dieci indagati. I nomi

Di Redazione - 7 Maggio 2019 9:01 - CRONACA

Xylella investigation, the judge orders the archiving for the ten suspects

The President Emiliano "The investigation by the Lecce prosecutor was not good"

Beppe Grillo

2 luglio 2018 alle ore 17:30 · 🚱

The #Xylella fastidiosa is a huge fake news! La #Xylella fastidiosa è una gigantesca bufala!

Some senators asked and

pushed for a parliamentary inquiry

SENATO DELLA REPUBBLICA

PROPOSTA DI INCHIESTA PARLAMENTARE



Populist politicians whipped up anti-science conspiracy theories

Others have established their parliamentary residence in an olive grove to hinder the application of the eradication of some infected plants



Part of the society don't trust or is against the science





January 2020



Maj 2019





October 2020



January 2022



	Governments	Ministries of Agriculture	Visits in Salento	08 aprile 2015		
XVII Legislatura (dal 15 marzo 2013	Letta Enrico (dal 28 aprile 2013 al 21 febbraio 2014)	Interim Enrico Letta dal 27-1-2014 Sottosegretari: Maurizio Martina, Giuseppe Castiglione				
al 22 marzo 2018). Elezioni politiche 24 e 25 febbraio 2013.	Renzi Matteo (dal 22 febbraio 2014 al 12 dicembre 2016)	Maurizio Martina (delega ad Expo 2015) Vice Ministro: Andrea Olivero Sottosegretari: Giuseppe Castiglione	8 april '15 (after 14 months) 20/07/15 with Andriukaitis	PRIMA		
	Gentiloni Paolo (dal 12 dicembre 2016 al 1 giugno 2018)	Maurizio Martina, dimissionario - Dpr 14/03/2018] poi Paolo Gentiloni, interim. Vice Ministro: Andrea Olivero Sottosegretari: Giuseppe Castiglione		"Agire subito contro la Xylella, stop		
XVIII Legislatura (dal 23 marzo	Conte Giuseppe (dal 1 giugno 2018 al 4 settembre 2019)	Gian Marco Centinaio Sottosegretari: Franco Manzato, Alessandra Pesce	19 July '18 (after 1 month)	Re seed in the seed of the see		
2018). Elezioni politiche del 4 marzo 2018.	Conte Giuseppe II (dal 5 settembre 2019 al 13 febbraio 2021)	Teresa Bellanova dal 05/09/2019 al 14/01/2021; interim Conte dal 14/01/2021 Sottosegretari: Giuseppe L'Abbate	Several (originary from Puglia)	LA SPUTACHINA MA LA DECRETO MARTINA		
	Draghi Mario (dal 13 febbraio 2021 - in carica)	Stefano Patuanelli Sottosegretari: Francesco Battistoni, Gian Marco Centinaio	?			

Xylella, il ministro Centinaio contro Grillo: "Non è una fake news, la settimana prossima andrò in Puglia"

Xylella, Minister Centinaio against Grillo: "It's not fake news, next week I'll go to Puglia"



8:02 AM · Jul 19, 2018 from Fiumicino, Lazio







"Chiedo scusa alla Puglia perché lo Stato, che si può chiamare ministeri, Regione, politica italiana o magistratura, in questi anni ha voltato la faccia dall'altra parte"

"Chiedo scusa non come cittadino, ma come ministro dell'Agricoltura e come rappresentante dello Stato italiano"

"I apologize to Puglia because the State, which can be called ministries, the Region, Italian politics or the judiciary, has turned its face away in recent years. I apologize not as a citizen, but as a Minister of Agriculture and as a representative of the Italian state"





Salento, Diocesi promuove processione e funerali per la peste degli ulivi





CRONACA

Xylella, un fiume di gente per salvare le piante e il paesaggio del Salento

In migliaia alla manifestazione promossa dal comitato "Voce dell'ulivo". Lungo i viali di Lecce anche una decina di mezzi pesanti: si è mobilitato un pezzo intero della provincia a difesa di un comparto economico ma anche di un simbolo del territorio



2015

GAPs DAY

#BUONEPRATICHEDAY

GIOVEDI 16 APRILE 2015 per tutto il giorno PRESSO IL PROPRIO COMUNE DI APPARTENENZA

100 TRATTORI 100 COMUNI

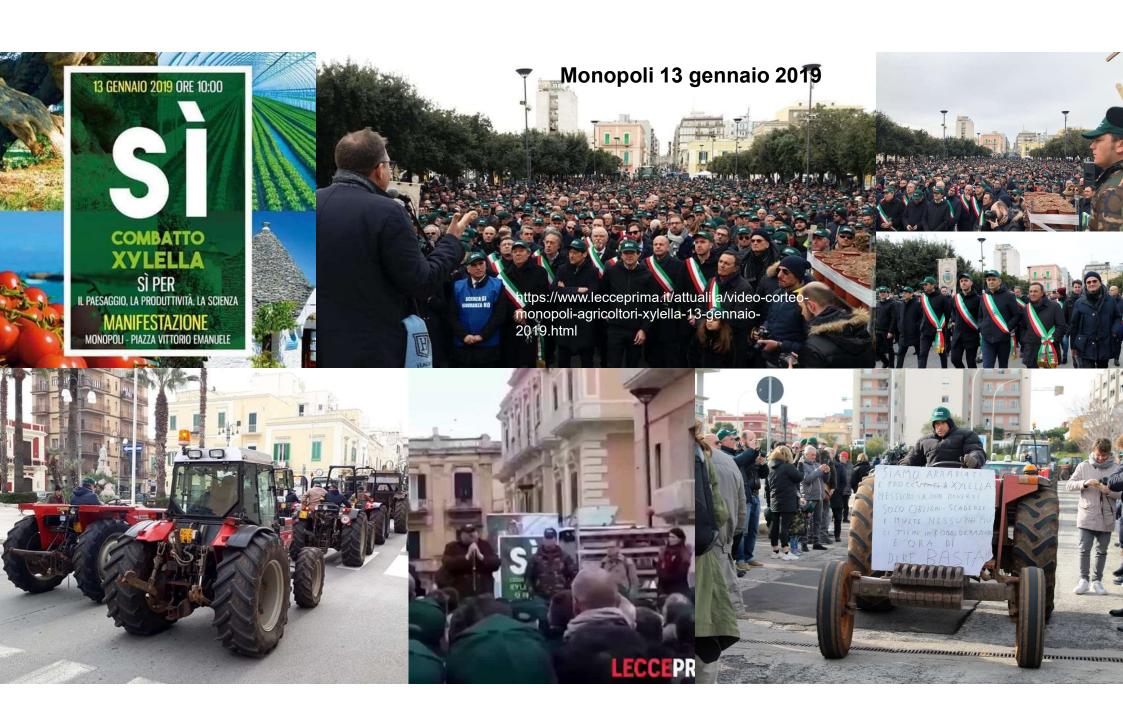
Tutte le aziende aderenti all'iniziativa dovranno dedicare una giornata lavorativa gratuita su tutte le aree private dei propri concittadini che non hanno i mezzi tecnici ed economici per ottemperare agli obblighi del piano di contenimento del Co.Di.Ro.



Per le aree pubbliche chiediamo ai Sindaci di rendersi protagonisti organizzando una giornata di operazioni di sfalcio delle erbe infestanti, coinvolgendo anche i cittadini e le aziende volontarie, munite di attrezzature proprie.









Maj 2018 exposed / complaint of producer's organization to the Public Prosecutors

4O" -

Consorzio Nazionale degli Olivicoltori - CNO

25 maggio alle ore 12:15 - 6

Ecco il testo integrale dell'esposto-denuncia contro la disinformazione organizzata e creduloni.

Il Cno presenterà la stessa istanza anche alle Procure di Lecce, Brindisi e Taranto. Difendiamo la nostra storia ed il nostro futuro!



CNO.IT

Esposto-denuncia del Cno contro disinformazione organizzata e creduloni, ecco il testo - CNO









article **656** of the Criminal Code referring to the publication and dissemination of false and unfounded information such as to disturb public order and safety, as well as article **500** of the Criminal Code relating to conduct, including negligent and omissive, direct or causative of the spread of diseases (see xylella epidemic)

Information VS Missinformation

Main Fake news (often in contraddiction) of Misinformation and Conspiracy

- 1. It is not scientifically proven that Xylella causes the OQDS
- 2. No EPIDEMIC or EMERGENCY with just 1,8% of olive plants infected by the bacteria (data of monitoring regional program)
- 3. There is a Monopoly of the Research in the hands of few by State Law
- 4. There are no data about the incidence of xf in the infected plants in the South Salento
- 5. There is a secret conspiracy to transform the traditional olive economic system (super-intensive) or Land grubbing



Oggetto: trasferimento di organismi nocivi per scopi scientifici.

Scientific Istitutions authorized to hold and handle XF ST53:

Università of Bari, Lecce, Foggia, IAM-Bari, CNR-Bari, Milan, Florence, Viterbo, CREA Rome. ST53 studied also in Belgium, France (2 ist.), Germany, Spain, USA

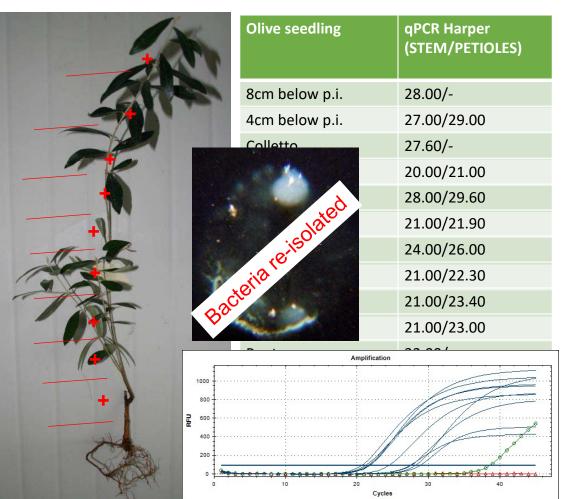




It has been experimentally verified, demonstrating the Koch's postulates, the etiological role of X.f. pauca ST53 in the Olive Quick Decline Syndrome in Puglia



100% of Xf positive in 500 olives with clear symptoms of the disease coming from 11 different towns in the Infected Zone







At least 9 scientific publications concern the association Xylella fastidiosa subsp. pauca and the Olive Quick Decline Syndrome

	Anno	Luogo	N° piante olivo	Rivista	IF		Autori	Titolo
1	2014	Puglia	49/50s (98%) 8/50as	Phytopathologia Mediterranea		IAMB	T. Elbeaino, F. Valentini, R. Abou Kubaa, P.Moubarak, T. Yaseen, M. Digiaro	Multilocus sequence typing of Xylella fastidiosa isolated from olive affected by "olive quick decline syndrome" in Italy
2	2016	Puglia	6 (100%)	Phytopathologia Mediterranea		UNIFI	G. Bleve, G. Marchi, F. Ranaldi, A. Gallo, F. Cimaglia, A. F.Logrieco, G. Mita, J. Ristori, G. Surico	Molecular characteristics of a strain (Salento-1) of Xylella fastidiosa isolated in Apulia (Italy) from an olive plant with the quick decline syndrome.
3	2017	Puglia	48+ tutte s. 48- tutte as.	Phytopathologia Mediterranea	1.442	UNISAL	MA. Luvisi, A. Aprile, E. Sabella, M. Vergine, F. Nicoli, E. Nutricati, A. Miceli, C. Negro and L. De Bellis	Xylella fastidiosa subsp. pauca (CoDiRO strain) infection in four olive (Olea europaea L.) cultivars: profile of phenolic compounds in leaves and progression of leaf scorch symptoms.
4	2016	Brasile	8/9s (%) 0/20as	Phytopathologia Mediterranea		S. Paulo	H. Della COLETTA-FILHO, C. Sardinha FRANCISCO, J.R. Spotti LOPES, A.F. DE OLIVEIRA, L.F. de Oliveira DA SILVA	First report of olive leaf scorch in Brazil, associated with Xylella fastidiosa subsp. pauca
5	2015	Argentina	-	Journal Plant Pathology	1 407	Cordoba La Rioja	R.M. Haelterman, P.A. Tolocka, M.E. Roca, F.A. Guzmán, F.D. Fernández, M.L. Otero	First presumptive diagnosis of Xylella fastidiosa causing olive scorch in Argentina
6	2017	Argentina	-	Journal Plant Pathology	1.407	Cordoba La Rioja	P.A. Tolocka, M.F. Mattio, M.A. Paccioretti, M.L. Otero, M.E. Roca, F.A. Guzmán, R.M. Haelterman	Xylella fastidiosa subsp. pauca ST69 in olive in Argentina
7	2017	Puglia	174s (100%) Koch Post.	Scientific Report (Nature)	4.122	IPSP-CNR	M. Saponari, D. Boscia, G. Altamura, G. Loconsole, S. Zicca, G. D'Attoma, M. Morelli, F. Palmisano, A. Saponari, D. Tavano, V. N. Savino, C. Dongiovanni & G. P. Martelli	Isolation and pathogenicity of Xylella fastidiosa associated to the olive quick decline syndrome in southern Italy
8	2018	Puglia	3604s 1818as	Biochemical and Biophysical Research Communications	2.559	Temple Univ. USA	E.M. Bucci	Xylella fastidiosa, a new plant pathogen that threatens global farming: Ecology, molecular biology, search for remedies
9	2019	Brasil	395s (83%) 4STs	Phytopathology	3.036	S. Paulo	Safady NG, Lopes JRS, Francisco CS, Coletta-Filho HD.	Distribution and Genetic Diversity of Xylella fastidiosa subsp. pauca Associated with Olive Quick Syndrome Symptoms in Southeastern Brazil.
		3		6		7		

Scientific Report, negli ultimi anni ha ospitato ben 7 lavori di gruppi diversi con Xylella fastidiosa nel titolo e ben 33 nel testo nonché migliaia e migliaia di altri lavori in ambito fitopatologico affidati a revisori specialisti dell'argomento

Despite the many new scientific evidences, ORGANIZED DISINFORMATION continues With a CAMPAIGN for oppositions to the containment measures

The multiple hypotheses on the origin of the phenomenon of OQD:

- Groundwater pollution
- Chemtrails
- Wood fungi (Verticillium type or rot agents)
- Herbicides and in particular Gliphosate
- Immune system weakening (?) Due to excess pesticides or lack of organic matter in soils
- Poor care of olive groves or incorrect agronomic practices
- Tectonic leaching (??)
- Secret nighttime xylella distribution with planes or helicopters
- Lands depleted by tobacco growing in the past
- Boric acid

The imaginative motives hypothesized:

- Building speculation
- Speculation to spread super-intensive systems
- Speculation to spread Israeli GMO olive trees (?)
- Speculation to spread patented resistant varieties
- TAP pipeline with landing at San Foca
- Design to destroy traditional Salento olive growing
- Import of non-EU oils (especially from Tunisia)

IGNORANCE BAD-TRUST

HUGE RESPONSIBILITY in the lack of contrast to the rapid spread of the EPIDEMIC







INFORMATION, COMMUNICATION & PUBLIC AWARENESS are the main antibodies against





MISINFORMATION & CONSPIRACY



Instruments of Information/communication

- Meetings on the territory with farmers
- Institutional websites (for example Emergenza xylella)
- Research Project websites, communication, scientific and divulgative events, newsletters
- Volunteer initiatives
- Divulgative publications on technical Journals
- Training in the school
- Classical Media
- Social Media



Lotta all'insetto vettore di Xylella fastidiosa.

mpagna di sensibilizzazione della Regione Puglia rivolta a privati e istituzioni per attuare le buone pratiche agricole per la lotta all'insetto vettore di Xylella fastidiosa.







Initiative born in March 2016 to provide CORRECT INFORMATION AND FIGHT AGAINST THE DILAGANT DISINFORMATION, a serious cause of the disaster in Salento





INFOXYLELLA

Pagina Facebook

Sito Web www.infoxylella.it

on FACEBOOK: today > 15.000 **followers**



Instagram





300.000 persons



Infoxylella® - Pioneering information for prevention and containment of Xylella fastidiosa, a case study for the epidemic in Apulia (Southern Italy)

La Notte Pierfederico¹, Specchia Francesco¹, Melcarne Giovanni², Vanadia Sebastiano²

2019

1. CNR, Institute for Sustainable Plant Protection - Italy: 2. Infoxylella® Editorial Board, Bari - Italy.



The difficulties in the implementation of containment measures over six years of a severe epidemic of Xylella fastidiosa in Salento (Apulla, southern Italy), as a consequence of uncontrolled free dissemination of fake news, demonstrated that timely and effective information and communication on the same ground utilised by the misinformation, social media, are strategic not only in contrasting the bacterium/vectors on the outbreaks but exacting the remembrance.

From 2016 Infoxylella*, a spontaneous initiative organized with an editorial board and a volunteer staff including over 30 components among researches, technicians, olive growers, agronomists and journalists, considering the complexity of scientific arguments, the continued rapid evolution of legislation and the confusion created by misinformation, try to inform correctly the public opinion and media. It uses a simple language, filtering the essential information only from official verified sources and profiting from a continuous collaboration with the coordination team of projects 140200 PonTE and XF-ACTORS, the MSCA-MISE Cure-KF or other regional projects such as ResiXO, etc. From its foundation, in less than four years, the editorial activity produced and released 408 news/posts [10] in 2016, 121 in 2017, 95 in 2018 and 82 to date in 2019), video, presentations, translations of H2020 projects informative material eff.









The number and origin of the constant users and followers on the web and the particular the growing popularly and success of the initiative. In particular the growing popularly and success occurred on Facebook where the infloxylefla. It page reached 5.000 users in July 17 and doubled the number to 1.000 followers in April 19.1 The geographical distribution of the Facebook users (from 45 different countries, as well as other users on the Twitter, Instagram and Infloxylefla Youtbuc channel) demonstrate how the web and in particular the social media, even despite the different languages, are the most efficient low-cost tool, able to reach a so large international public in real time.



Infoxylella became a reference point and a reliable specialized source of information for journalists, being mentioned as a source in over 60 articles in national journals, other media as well other press release agencies. Thirty-four among municipalities, producer's organisations, associations, companies, etc. became formal supporters of Infoxylella and their trust encourages to proceed for further activities and objectives.

Follow us and became the 38° supporter of INFOXYLELL





A further important institutional acknowledgment came in 2019 from the Italian Ministry for Agriculture (MiPAAFT) that, in the document "Plan of intervention for the revival of the agricultural and agri-food sector in the territories affected by Xylella" (DIM n.1785 of 14 February 2019) at the chapter 3.5 Communication Plan.

cites the initiative of Infoxylella as an example of efficient communication instrument also proposing to set up and link officially to Infoxylella a new official website managed by the Italian central phytosanitary Service.

Even if it's still a volunteer initiative, Infoxylella is in the process to acquire a legal status becoming a non-profit organisation such as an association or a foundation. This natural evolution could help in targeting new advanced objectives, to participate to projects, to be able to establish formal relations/contracts with legal entities, to recruit personnel enforcing the actual part-time volunteer staff.

Infoxylella is active in the territory participating, through its representatives as invited speaker, in informative senimars (11 in 2017, 28 in 2018, up to now 29 n 2019) organised mainly by the municipalities in Apulia, but also in events in other Regions (I.e. Basilicata, Calabria, Liguria, Sardinia, Tuscany, Umbria, Lombardy) or abroad (Albania, Lebanon, Montenegro). This activity became over time crucial in the new mission of Infoxylella: improve public and institutional awareness about the xylella risks, foster new initiatives (such as those illustrated in the pictures: technical visits of farmers in Salento, training activities with the high schools on the field, helping the birth of new initiatives) and stimulate at local level the organization of prevention/surveillance activities.



miccinformation



Infoxylella continues the fight against disinformation, promptly intervening to unmask and unveil fake news but also avoiding public or television confrontations in the presence of people who deny the xylella epidemic in Puglia continuing to hinder the containment measures.

In order to involve the local administrations in prevention and public information as collective contrast to the epidemic, infoxylella prepared an informative leaflet o 8 pages already adopted, for printing or publishing in electronic format, by several local entities (Municipalities, Associations, Local Acton Groups).





Graphic used and cited by EPSA in +Pest survey card on Xylelia festifiese (Supp. Pub. 2019: EN-1667)

Further ideas and hypothesis of work: a. the organization of "train the trainers" courses for agronomists and technicans to carry out informative activities on the territory b. strengthening and organization of the huge digital archive containing articles; interviews, official documents, images, videos and everything that has been collected and catalogued by the editorial staff since 2013; c. the preparation of technical video-tutorial for the farmers about prevention, surveillance and containment measures.

The experience of Infoxylella, even with a limited capacity due to the lack of human and financial resources, demonstrate that, even for the necessary information and communication, the bottom-up approach is possible and could stimulate other initiative especially among local and in the public.

Despite its young age and the specificity on Xylella in Apulia, Infoxylella could be considered as a case study providing useful practical experience and ideas to improve elsewhere public awareness on phytosanitary issues and direct involvement of population in the contrast of other epidemics.

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mipæft

ministero delle politiche agricule alimentari, forestali e del turismo

b) Istituzione di un team di comunicazione specifico per Xylella, non limitato al rilascio di comunicati stampa ai canali tradizionali (giornali, tv, radio), ma attivo anche sui social media, strumenti che, come dimostra l'iniziativa di Infoxylella it, sono molto efficaci con costi estremamente ridotti. L'obiettivo è quello di presidiare un importantissimo ambito informativo come il web ed i social media, attraverso il costante monitoraggio dell'informazione, la raccolta delle segnalazioni di informazioni non corrette e la preparazione delle risposte. Inoltre, dovrà essere predisposta una redazione dedicata al problema i cui addetti manterranno attiva una campagna stampa aggiornata. Nell'ambito del nuovo quadro normativo nazionale di riordino del Servizio fitosanitario nazionale, è prevista la realizzazione di uno specifico sito web di protezione delle piante, che manterrà aggiornata l'informativa verso gli operatori professionali e la cittadinanza sulle attività legate agli organismi nocivi delle piante. Il sito web, gestito da un gruppo redazionale nell'ambito del Servizio fitosanitario centrale, avrà una sezione dedicata a Xyletio fostidioso che, oltre a mantenere il link con il sito web infoxylella it, fornirà tutte le informazioni relative all'emergenza X. fostidioso in atto. Particolare attenzione sarà posta nella predisposizione di una pagina di FAQ sulla problematica.









DOWNLOAD THE BROCHURE IS INTENDED TO INFORM CITIZENS ABOUT THE MEASURES FOR CONTAINMENT AND PREVENTION OF THE EPIDEMIC

Verified in its contents by the Phytosanitary Observatory Service and sponsored by the Councillor for Agri-food Resources of the Puglia Region, it is an immediate and concise dissemination tool made available free of charge, for printing or even just publication in electronic format on websites, for local administrations, companies, producer organisations, associations, etc.

Requests for a customizable file with your own logo on the cover should be sent by email to:

redazione@infoxylella.it o info@infoxylella.it.

(download at the link https://bit.ly/2U4GB5R)

FOLLOW and BECOME A SUPPORTER of **INFOXYLELLA**



Support is intended as sharing the site's goals and objectives and possibly also, at each individual's discretion, as a willingness to collaborate externally with the editorial staff of infoxylella.it.





















CONGEDI















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Pagina Facebook: snew facebook: com/musclefully/

LETTERA DI SOSTEGNO

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Si offre abresi la dispositiété a collaborare est-





























AGENZIA DI SVILUPPO LOCALE LOCAL DEVELOPMENT AGENCY







BeXyl, EFSA and Auburn University launch Xylella Seminars Feb 1, 2024 | News

Limits of the information

- A very complex topic in constant evolution that requires specialists (journalist, technicians, officers, researchers)
- Risk of decline in public attention along the years
- Spectacularization and polarization of information, especially on TV
- Needs of costant efforts in the right times
- Trained people and <u>specific resources/fundings</u>
- Low awareness about its importance

CONTRAST (Eradication/Containment Measures)

- 1. Monitoring (Informations i.e. Host range, Funds, Organization, Staff, Sampling protocols, Diagnosys, Labs)
- 2. Elimination of infected plant/inoculum source (Law, Funds, Organization, Staff, Producers communication) / Opposition by misinformation and conspiracism, appeals to administrative court (institutional conflict between Phytosanitary and Justice activities)
- 3. Control of Vectors (Information i.e. spittlebug life cycle, Law, Monitoring of vectors, Funds, Organization, Controls & Sanctions). Measure compulsory for farmers (any reimbursment of costs) + local administrations (very scarse participation and bad example for farmers)
- 4. Plant movement limitation / restriction and compulsory measures for Nurseries (Info, Law, Funds, Organization, Controls)
- 5. Prohibition of planting "host" species (no communication and controls), in 2018 overcame for 2 resistant olive cvs (Leccino & FS17), almond and cherry (thanks to the results of the research)



l plants

prohibitio

300 M€
sum funded but not
according real needs
and
calculation/estimation



NATIONAL PLAN funded on June 2020

14 measures

The majority for compensations (5 measures for 185m€) and regeneration (4 for 75M€) much less for research (1 for 20M€), contrast (3 for 15M€) and prevention (5M€)

Measure	Art. Plan	Activity	Total Funds M€
1.A	3	Vector contrast and elimination of inoculum sources	5
2.A	4	Removal of dried out plants for XF in the infected area	20
2. B	6	Replanting and conversion through resistant olive cultivars	40
2.C	7	Conversion to other crops (used by the Ministry for a District Contract ¹)	25
2.D	8	Protection of secular or monumental olive trees (overgrafting with resistant cultivar, 140€/plant)	5
2. E	9	Income support: Compensatory interventions for agricultural enterprises (with damages >30% and for max 3 year. Managed by ARIF through a portal)	120
2.F	10 14	Compensations in favor of oil mills (max in a 3-year period. Managed through the Paying Agency AGEA)	35
2.G	15	Support for active nurseries in the demarcated area for investment for protection/prevention	5
3.A	16	Supply chain and district contracts	5
3.B	17	Diversification of the rural economy and land consolidation (including support to activities of valorization of olive wood and landscape)	5
4.A	18	Communication and information (Inherent to the Regeneration Plan)	5
4.B	19	Research and experimentation (with priority on identifying other resistant or tolerant cultivars)	20
5.A	20	Strengthening the network of public laboratories	5
5.B	21	Monitoring and diagnostics	5

SURVEILLANCE

Public Monitoring & Sampling (Plant hosts, Funds, Organization, Staff, Sampling protocols, Diagnosys, Labs)

Volunteer surveillance and reporting symptoms (lack of information, a communication system, involvement/participation of local administrations)

Increased controls on the borders and EU entry points for planting material

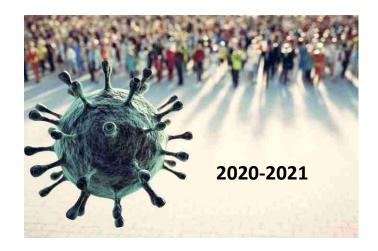
Prevention

Institutional communication of eradication/containment measures Institutional information (seminars, use of media and social media)

COMMUNICATION / PREVENTION / INFORMATION GAPS (2019)

- Funds available but scarse. Late and very limited use of the resources available (lack of political will)
- Limits in communication and scarse synergy/cooperation among Institutions (EU/National/regional government, Ministries, Local authorities)
- Low awareness, will, determination and action of National/Regional Government and Policy
- Scarse involvement and awareness of local administrations and civil society
- Weakness and passivity of producers, other stakeholders and their representatives (limited protests and request for funds and compensations / reimbursement / regeneration)
- Scarse attention of public and private National Media
- Bad role/influence of social media in spreading fake news, missinformation, conspiracy theories





17 ott 2023





Feb 2022

The MISINFORMATION is still active



2015















ATTENTION to the false cures

Bexyl Project



"Beyond Xylella, Integrated Management Strategies for Mitigating Xylella fastidiosa impact in Europe"

Task 8.1

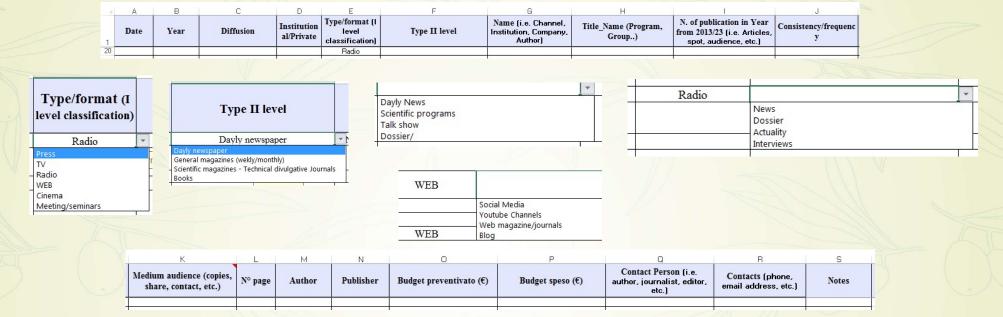
Analysis of results, weakness points and limits in the coordination and implementation of EU/national strategies to Xf outbreaks response





GENERAL OBJECTIVE is to identify key factors of success, critical points and limits in the RESPONSE to the different Xylella fastidiosa outbreaks/epidemics in Mediterranean Countries. This could be useful to LEARN THE LESSON for the improvement of legislation and strategies to limit the spread of Xf and other quarantine harmful organisms

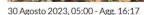
Information / Communication



- We started with the online search of newspaper articles, directly from official websites archives
- Searching for data about public relevance of the different media (public, n. of printed copy for press, auditel, demoscope, etc.)
- Interviews to journalists specialized on Xylella epidemic.



Q 4550 risultati per "Xylella" CORRIERE DELL



Xylella, c'è una speranza. Gli scienziati al lavoro: «Il batterio ha rallentato, vi spieghiamo perché»









Ordina per Rilevanza v



30 Marzo 2023, 12:32 - Agg. 12:36

Daniele Rielli, "Il fuoco invisibile" e la storia delle falsità su xylella



SPETTACOLI

Scott Eastwood a Ostuni e a Lecce arrivano gli attori De Dominici e Riotta

Sorpresa a Lecce: spunta l'attore hollywoodiano Andy Garcia

CULTURA

Liotta: «Vi dico perché fermarsi ci aiuta a non ammalarci»

Premio Strega 2024, due pugliesi nella dozzina di finalisti

di Claudia PRESICCE

IL CASO

Chi è il nuovo re, l'incontro con Mary in un pub e la presunta amante con cui è stato paparazzato

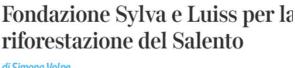
Foto

di Veronica Cursi



IL RACCONTO

D-4-1-1- D-11---1-- D---1---1----1



xylella

di Simona Volpe

Servizi V

L'associazione no-profit che si occupa di rigenerazione ambiental collaborazione con il prestigioso ateneo romano, si occuperanno c



28 Giugno 2023, 18:09

Xylella: contro il batterio

19 Marzo 2023, 05:00 - Agg. 20 Marzo, 18:09 Xylella, 10 dieci anni dopo.



Sezioni

XYLELLA

507 risultati trovati per:

Edizioni Locali 🗸

NEL SALENTO

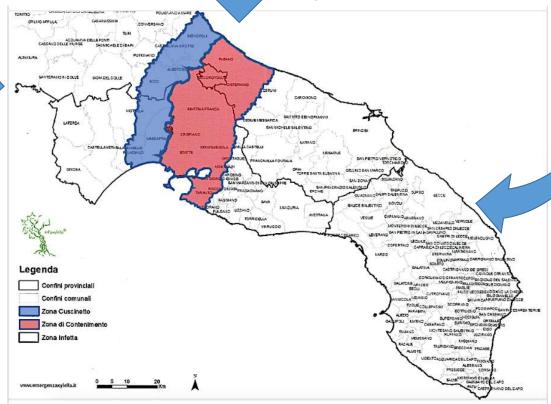
«Un albero per ogni matricola». Così Luiss e fondazione Sylva fanno rinascere l'uliveto dopo la Xylella

di Carlo Testa

Iniziativa della fondazione Sylva con l'Unviersità Luiss Guido Carli per riforestare un terreno di sette ettari nella campagna salentina, in località Change in strategy and perspectives

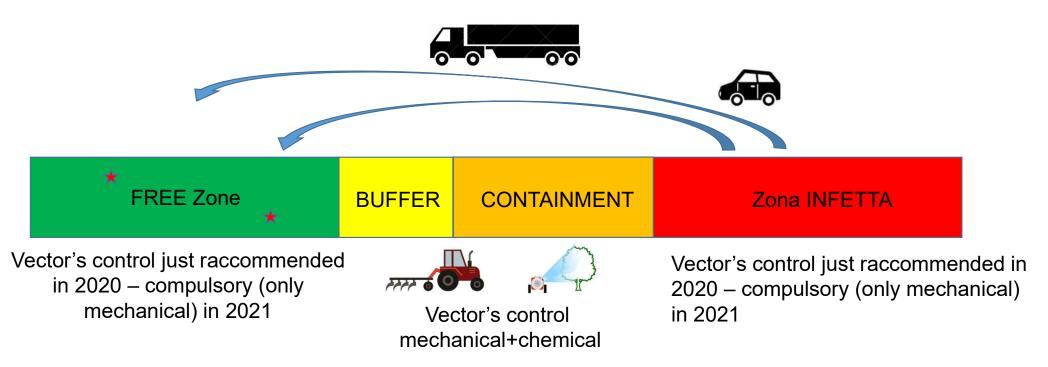
PREVENTION

- Information
- Surveillance/Monitoring
- Vector's population control
- Spread of resistant varieties
- Monitoring
- Comunication
- Containment actions
- Organization / Controls



- Regeneration of agriculture with species/crops/ cvs immune or resistant/tolerant
- Genetic diversity
- Agroecosystem resilience

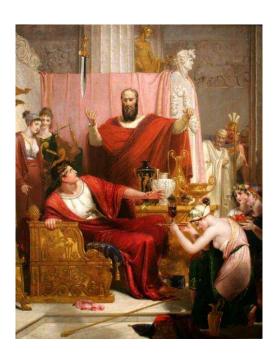
Prevention of passive transport of adult vectors



PUBLIC AND POLITICAL AWARENES AND WILL



Not an IDEOLOGICAL issue but only a serious TECHNICAL / PHYTOSANITARY problem



RESPONSABILITY

DM 1785 del 14/02/19

9.5 Piano di comunicazione pagine 35-37

mipæft

ministero delle politiche agricole alimentari, forestali e del turismo

Piano di intervento per il rilancio del settore agricolo e agroalimentare nei territori colpiti da Xylella





9.5 Piano di comunicazione

La comunicazione riveste un'importanza cruciale nel piano delle azioni future. Il presente piano intende chiarire gli obiettivi, i target di riferimento e le azioni da sviluppare.

L'attuazione del piano dovrà essere preceduta e accompagnata da una serie di azioni comunicative preventivamente condivise a tutti i livelli, dirette a: Istituzioni, cittadini, imprese pubbliche e private, agricoltori, rappresentanti del mondo ambientale e della società civile.

L'obiettivo del Piano di comunicazione è portare a conoscenza di tutti l'effettiva gravità della Xylella, del rischio della sua diffusione, degli aspetti tecnici dell'epidemia, degli obblighi e delle prescrizioni di legge, non solo per operatori del comparto olivicolo. Obiettivo delle azioni di questo Piano è potenziare quanto già fatto dalla Regione Puglia attraverso il portale dedicato all'informazione (http://www.emergenzaxylella.it) e raggiungere un più ampio pubblico. La disinformazione sul fenomeno produce gravi danni al comparto in termini economici, perché si trasferisce negativamente sul mercato e sulle aspettative dei consumatori. La piattaforma d'informazione ufficiale è intesa come sistema istituzionale di comunicazione "attiva" che, oltre a stilare bollettini periodici e comunicati stampa, dialoghi costantemente con i mezzi pubblici di informazione e ne coordini gli interventi.

Il Piano di Comunicazione prevede anche azioni di informazione con finalità di prevenzione da svilupparsi nella zona delimitata e le aree contigue. Tali attività sono tese a informare correttamente e a sensibilizzare la cittadinanza sul rischio potenziale di diffusione dell'epidemia e sull'esigenza di adottare tempestivamente misure di prevenzione o ancor più di prepararsi ad adottare misure obbligatorie di contenimento. Tale Piano specifico deve comprendere:

A CHANGE OF PACE AND MENTALITY IS STILL NEEDED IN THE FIGHT AGAINST THE EPIDEMIC





COLLECTIVE ACTIONS

(cooperative / amministrazioni locali / distretti-provinceregioni / politica agricola stato)











IDEAL ACTION PLAN to combat the epidemic:

- POLITICAL AND INSTITUTIONAL AWARENESS of the severity of the epidemic, of the enormous potential risk, of the unavoidable
 and necessary application of the containment measures, of the urgency to intervene promptly and effectively.
- 2. Strong common **DETERMINATION** and **WILL** of success.
- 3. <u>COORDINATION</u> of institutions / forces / bodies called to manage the contrast and prevention on the territory (EU, government, region, provinces, municipalities)
- 4. INFORMATION / COMMUNICATION capillary and constant, conducted with innovative and effective tools
- 5. PREVENTION and PREPARATION OF TERRITORIES free but close to demarcated areas
- 6. <u>COMPETENT HUMAN RESOURCES</u> (especially with the SFR) for the coordination and implementation of law enforcement measures.
- 7. <u>FINANCIAL RESOURCES</u> adequate for the implementation of containment measures and the rapid restoration of damage, the revitalization of infected areas
- 8. <u>DIRECT INVOLVEMENT</u> and <u>LIABILITY OF ALL THE TERRITORY</u> as citizens, farmers, representatives, associations, administrators, men and forces of the state who must fulfill the obligations and participate / assist in the implementation of the law enforcement
- 9. <u>ADEQUATE REGULATORY FRAMEWORK</u>, legislative measures also extraordinary, simplified and promptly adapted to the evolution of the situation
- 10. SYSTEM of CONTROL AND SANCTIONS adequate and effective (in terms of human, financial and instrumental resources).
- 11. <u>SIMPLIFIED ADMINISTRATIVE AND PROCEDURAL CONTEXT</u> adapted to the urgency and timeliness of the interventions both for the implementation of the containment measures and for the restoration of damage, restoration and relaunching in the infected areas
- 12. Trust, collaboration and support (also financial) for **RESEARCH**



All elements essential and necessary at the same time