

Obj.: Request for an Investigation Committee on the olive trees dessiccation in Salento, Apulia region, Italy

Rome, Jan 5th 2019

Dear Sir,

in the last few years the Apulia Region, notably the land of Salento, attracts interests from many speculators involved in the rural sector affecting the commons.

We ask You to stop any attempt to spoil Salento and initiate a commission of inquiry able to shed light on the controversial theme of the Xylella fastidiosa bacterium, accused to be the cause of the olive trees dessiccation in Salento. For sure, the bacterial canker is a battering ram used to fulfil an old objective: to reproject the Apulian territories for speculative purposes. A matter upon which the Public Prosecutor of Lecce investigates without the expected success because of Mediterranean Institute of Agronomy - IAM's immunity and its employees and researchers from legal proceedings, knowledge and execution, the protection of the archives, and immunity from any form of prosecution, requisition, confiscation and compulsory purchase under the Law n.159/2000. One of IAM's advisors is one of the major political figures who are working for the rapid devastation of the traditional Apulian olive growing and its precious germplasm: Mr Paolo de Castro and his brother Fabrizio.

We wonder why there's so much secrecy, inexplicable for a public scientific institution which operates at a transnational level in the Mediterranean basin Countries.

We wonder why many farmers and agronomists' voice hasn't been listened when they were able to show that trees can be treated and cured using natural agronomics techniques based on a mineral regeneration of the ground.

We wonder why the thesis for which that 60 million trees forest, half of which ancient trees, has to be destroyed in order to make way for new species, equipped with a chip and subject to a royalty or others over-intensive crops.

We wonder if the above mentioned species have really been created by means of natural hybridization, like plants' creators claims, or if they are engineered species. During the 90s¹, indeed, a GMO experimental field grown with olives trees, among others species, already existed. That field was destroyed after a complaint from Fondazione Diritti Genetici². That complaint was contested as a fruit of 'non-random' inefficiency and non-compliance from the responsible Ministry³. The Italian research is portrayed as a damaged victim and the Foundation's complaint as a way facilitating the great lobbies' future interests in our Country but gaining the monopoly on the GMO. "If we could go on with our research – said Rugini, coordinator of the Project at Tuscia University – we could defend our agriculture actively from the ones who, without any scruple, will force us (perhaps they already do it) to use plants and food whose nature or genesis are unknown, without we know anything about their patent. We wouldn't be able to recognize GMO trees because of the interruption of our research"⁴.

We wonder why a territory able to bring an active GDP even in a economically critical context and to show an exponential growth in the agrifood sector, in technology and tourism is today insistently shown to the European institutions like 'Copernican revolution's needy. In particular the Apulia region olive oil sector contributes to the national total with a 51,9%⁵.

But the healthy trees' deforestation got down on knee the olive oil industry. On June 5th, after the 60 days in which Martina Decree could have been contested before its introduction, Mr. De Castro and Mr. Fitto went to Bruxelles for a meeting with Mr. Andriukaitis in order to realize more rapidly those actions able to 'reinvent landscapes' and asking for rural development funds⁶.

The same claims a week after, in Strasburg, with Mr. Hogan⁷. In few weeks and having as an appointment the end of the Rural Development Program 2014-2020,

¹ Interrogazione a risposta scritta 4/16572 presentata da Farina Coscioni Maria Antonietta (Partito Democratico) in data 20120613 in: http://dati.camera.it/ocd/aic.rdf/aic4_16572_16

² Fondazione Diritti genetici, 'La sperimentazione di alberi transgenici presso l'Università della Tuscia: da mancato rispetto della normativa ad opportunità per un progetto di ricerca partecipata', giugno 2012

³ <https://www.freshplaza.it/article/4048131/universita-della-tuscia-finisce-in-fumo-una-ricerca-pubblica-pluriennale-su-piante-arboree-geneticamente-modificate/>

⁴ <https://www.freshplaza.it/article/43697/>

⁵ <https://www.foodweb.it/2018/06/olio-extravergine-federolio-rivoluzione/>

⁶ <https://www.ilpaesenuovo.it/2018/06/05/xylella-fitto-e-de-castro-incontrano-andriukaitis-a-bruxelles-ha-condiviso-nostre-preoccupazioni/>

⁷ <https://www.ilpaesenuovo.it/2018/06/12/emergenza-xylella-e-programma-nazionale-di-ricostruzione-fitto-e-de-castro-incontrano-il-commissario-hogan/>

Mr. Fitto and De Castro gained the approval of their project able to 're-draw' the territory on a local, national and communitary level.

In september the agenda of the above mentioned Sirs started again in order to obtain 100 million of non-repayable Euros in a short time. A half of the money should arrive from the European Union and a half from the italian regions on the basis of a shared interest: the bacteria control. Even if, according to Efsa, it is impossible to contain this kind of bacteria through the plants' destruction.

In september and october Mr.Andriukaitis and Mr.Hogan had to be in Salento again in order to formalize an agreement with our territory. The consequence for our Country would be the most productive olive oil sector's destruction, a sector able to give a contribution to the Italian economy.

This happens even if various farmers and experts have been able to prove the existence of sustainable ground and trees' care against a pathogen normally existing on the ground itself.

We ask to verify the legitimacy of a bipartisan interest coming from Mr De Castro and Mr.Fitto in a matter in which both of them have direct interests.

We have already mentioned the role of Paolo de Castro and his brother about IAM, the 'black hole' in Xylella affaire. While Mr Fitto family is notoriously one of the major producers in the olive oil sector. Few years ago Mr Fitto's uncle, his namesake Raffaele, was condemned for a fraud against the European Union for 6.5 million Euros⁸.

21 people involved in the fraud, 90 under investigation for false invoices' emission for 30 million of euros, 23 mills, 3 commercial enterprises, 9 properties, 85 farmlands and 60 bank accounts seized. This fraud involved some calabrian areas. The conspiracy charge was dismissed even if it is well-known the organized crime's broad involvement at every level in the counterfeit food sector⁹ because it is a less risky money laundering in comparison to others illegal commodities¹⁰.

⁸ <http://ricerca.repubblica.it/repubblica/archivio/repubblica/2008/03/06/scacco-alla-gang-dell-olio-fantasma.html>

⁹ Resoconto Stenografico della Commissione parlamentare di inchiesta sui fenomeni della contraffazione, della pirateria in campo commerciale e del commercio abusivo, Seduta n. 1 di Giovedì 11 settembre 2014. In: http://www.camera.it/leg17/1058?idLegislatura=17&tipologia=audiz2&sottotipologia=audizione&anno=2014&mese=09&giorno=11&idCommissione=64&numero=0001&file=indice_stenografico

¹⁰ Colomba Mongiello, "Relazione sulla contraffazione nel settore dell'olio d'oliva", per la Commissione Parlamentare d'Inchiesta sui fenomeni della contraffazione, della pirateria in campo commerciale e del commercio abusivo.

We would also obtain transparency with regard to an experimental test, object of an urgent parliamentary question promoted by the regional councillors Casili, Galante and Barone. In 2016 they called to account to the regional parliament a project realized in Lecce, Brindisi and Bari between 2011 and 2013¹¹.

Their parliamentary question was about the 'Experimental project Monsanto about perennial plants' management (GiPP)¹² and observed how the research's results have been visible only to the directly involved subjects. The Regional Phytosanitary Observatory didn't furnish an answer to the Office of the Prosecutor. The same Region wasn't able to give an answer to the urgent parliamentary question since they were unaware about the reported facts. Who did allow such an experiment? How on earth Round Up's massive use, notoriously composed on glyphosate, a substance which induces teratogenesis and others crippling diseases, damages severely animals and plants' biodiversity and soil equilibrium¹³ has been used without any institutional control on pesticides drift?

In particular the councillors detected an anomaly about an experimental experience which entails the use of Round Up in olive groves grounds by means of a weeding machine able to spray poison at 9 bar and 9 metres out. During the parliamentary question were fostered public health's severes damages caused by this practice, but also the depletion of the grounds and a probable air and aquifers' pollution¹⁴.

Moreover, the above mentioned councillors mention Monsanto and Basf's private interests in this matter. Monsanto and Basf are very well known transnational corporation operating in the agrottoxics and GM crops sectors. Particularly it is remembered that in 2008 Monsanto acquires the company 'Allelyx'¹⁵ from the brazilian company 'Canavialis' in march 2012 in which Basf invested 13.5 million dollars. The same creators of Allelyx explained that the company's name is anagram of Xylella but also derives from the scientific name 'allele', the

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<http://www5.consiglio.puglia.it/GISSX/XSagArchivio.nsf/b7053e69bd246dbfc125690b0035d07d/1a0b88f3b46601fdc1258052004eaf54?OpenDocument>

12 <http://www.roundup.it/gipp/progetto>

13 A great bibliography in: <http://grelazio.blogspot.com/2016/06/il-killer-glifosate.html> e https://www.researchgate.net/publication/305198199_Effetti_del_Glifosate_sulla_qualita_ambientale_e_gli_organismi_viventi

14 Data furnished by ARPA Puglia to ISPRA 2018, referred to 2015-2016 data. You can see regional data on <http://www.isprambiente.gov.it/it/pubblicazioni/rapporti/rapporto-nazionale-pesticidi-nelle-acque-dati-2015-2016.-edizione-2018>

15 "From Xylella to Allelyx", aprile 2002, in <http://revistapesquisa.fapesp.br/en/2002/04/01/from-to-allelyx/>

alternative form a gene can take, so it is responsible of a gene mutation. Allelyx's birth happened in Brazil thanks to the efforts of 5 scientists. One of them is Arruda, whose name is in a lot of research works in which there's a collaboration with the leading transnational companies operating in the pharmaceutical, agrotoxic and GM's field. Allelyx's objective is to transform genetic information in products. An economic help to Allelyx's birth came from Votorantim Novo Negocio with a 300 million dollars contribution. Votorantim is a venture capital society interested in life sciences' fields and minerary exploitation. Both Allelyx and Canavialis have been sold during the very first years 2000 to Monsanto. Both of them have no competitors in this scientific field. At the top of Allelyx, a company brought with the declared scope to study Xylella-resistant plants, there is Fernando Reinach. With Arruda he is one of the planners and authors of the first bacterium sequencing in science's history with the above mentioned aims to attract capitals around a science whose economic potential was not so understood yet in these years¹⁶. The bacterium at hand is Xylella fastidiosa while the main scientific 'actors' involved in this Molecular Biology's 'copernican revolution', started a cooperation with Monsanto, Bayer Crop Science, Basf. Among the authors, also Almeida, the only expert called from the Apulia Region presidency: it arises irregularity issues about the lack of plurality with regard to scientific opinion procurement in a very important matter because of its economic and social effects.

There aren't any idle doubts about the existence of conflicts of interest in this affair.

In molecular biology, the genome information allows the genetic manipulation which controls chemical signals responsible of the interaction between bacteria and insect vector and between the bacterium and a host plant. "Once detected the determinants of an host plant – pathogen and the virulence's determinants – we read in a research conducted by CNR (National Council of Research), La Sapienza University and Ispra specialists¹⁷ – it is possible to select in the lab specific bacterial strains with a specific virulence related to a specific plant variety that can be replaced with a resitant one, obtained with artificial mutagenicity in the field of genetic engineering. Berkley University showed that it is possible to increase Xylella virulence through a plasmide's genetic change. The

¹⁶ Claudia Iziq e Mariluce Moura, "Fernando Reinach: an announced Revolution", gennaio 2004. In: <http://revistapesquisa.fapesp.br/en/2004/06/01/an-announced-revolution/>

¹⁷ Giuseppe Altieri (Docente di Agroecologia, Fitopatologia ed Entomologia, Istituto Agrario Todi) Pietro Massimiliano Bianco (Servizio Carta della Natura, ISPRA) Valter Bellucci (Servizio Uso sostenibile delle Risorse Naturali, ISPRA) Francesca Floccia (Servizio Tutela della Biodiversità, ISPRA) Carlo Jacomini (Servizio Tutela della Biodiversità, ISPRA) Pietro Perrino (già Dirigente di Ricerca del Consiglio Nazionale delle Ricerche) Rosalba Tamburro (Dip. di Biologia Ambientale, "Sapienza" Università degli Studi di Roma) Franco Trinca (Presidente dell'Associazione NOGM), "Xylella fastidiosa e olivo", maggio 2016, su <https://www.researchgate.net/publication/303408704>

new strain, agent of wine Pierce disease, have the mutated gene *rpfF* which is more virulent than the wild one if mechanically inoculated in the plants (...). In short it seems it is possible to genetically engineer the bacterium in order to infect whole plant groups to GM market's advantage (...). The studies released in 2008 from the biological european network, set up in the context of COST 873 initiative, showed that among the bacterial species listed, only *Liberibacter spp.* e *Xylella fastidiosa*, both citrus pathogens, could be found suitable to meet the criteria outlined for the biological weapons"¹⁸.

So the doubts arisen during the above mentioned parliamentary question to the Apulia region president Emiliano, Loizzo and the Regional Minister for Agriculture Di Gioia are not of secondary importance nonetheless it remained unanswered because the Region's offices declared to be in the dark regarding the mentioned facts (n. Reg. 489 del 20/10/2016). Particularly important what happened in march 2015 when the same Apulia phytosanitary boureau during a Report to the Senate on *Xylella fastidiosa*, cleared that from may 2013: "After excluding any pollutant substance in soil and environment, has emerged a very complex phytosanitary symptom framework determined by various causes (pests, fungi and bacteria) and a new phytosanitary term was created: CoDiRO Olive Trees Rapid Dessiccation Complex.

But we have seen that the experimental camps were conducted just using weed killers, able to severely weaken soil.

The Prosecutor's findings, carried out in Alezio's countryside, determined that ground's nutrition levels were lower even to the desert ones because of pesticides ables to weaken centenary plants, now not sufficiently strong against pathogens.

About this point Prof. Pietro Perrino, genetist and CNR Germplasm Institute's director, repeatedly spoke out explaining trees vulnerability related to biological diversity imbalance caused from chemical and mechanic agents's use that sterilize the ground.

Warnings about olive trees disseccation symptoms started in 2004 and 2006 and again in 2008. But at first the causes were ascribed to olive anthracnose. For this reason between 2010 and 2012 some experimental camps were opened "in order to test non authorized products" able to fight pest and weed olive groves with pesticides¹⁹.

¹⁸ idem

¹⁹ <https://www.ilfattoquotidiano.it/2017/08/02/xylella-la-procura-di-lecce-chiede-di-proseguire-linchiesta-su-tre-indagati/3770711/>

It has never been realized a deep and articulated multidisciplinary study about this. It would have been crucial to understand a real relation between Co.Di.RO²⁰ and *Xylella* in Salento region and/or others ecological, pathogenic, biotic and abiotic (organic substance and micro-biome soil deficiency, potential micronutrients' lack, toxic metals or organic pollutants' presence, weed killers and the presence of other pesticides).

2013 is also the year in which Monsanto ends its experimental camps glyphosate-based and the olive trees dissection is more and more visible in Salento. The same Report we just mentioned stated that in October 15th 2013 it is officially communicated that the scientific institutions which made part of SELGE labs net could identify *Xylella fastidiosa*. Particularly CNR-Bari was able to detect the 'right' bacterium. This makes the situation more complex because X.f. is a quarantine bacterium and it is the first time it was identified in Europe.

It is also stated that the infected area amounts to 8 thousand hct 2 or 3 thousand of which are planted with olive trees and in the Gallipoli's countryside. In the opinion of the Regional Phytoiatric Observatory, early actions were taken because of the European Commission's pressures, worried about a bacterium spreading.

Among a list of measures to supervise the bacterium, it is suggested the infected trees grubbing up and the use of pesticides.

Anyway the Italian Institutions weren't able to furnish reliable information because: "It didn't exist in the world a similar case which we can refer to or use for already experimented and solid test, something that put the Apulia Region in great difficulty because it resulted unable to furnish right and sufficient answers and persuade the inspectors about the work we programmed and put in place".

It is very odd the Apulian public Institutions mention the absence of scientific experience about the bacterium in object even in the light of the fact that in 2010, at Valenzano-IAM in Bari, during a workshop entitled "Diagnostic and statutory aspect of *Xylella Fastidiosa*, its vectors and the diseases it is causing", one of the experts announced *Xylella* forthcoming hazard in Europe²¹.

The matter ends up in a report written by Eurispes, Coldiretti and the Observatory on criminality in agriculture²². Here we read the infectious disease's source could be intentional. The first dissections happens in a sought-after

²⁰ [http://www5.consiglio.puglia.it/Giss9/9SagArchivio.nsf/\(InLinea\)/Risp.Varie-75-IX/\\$File/relxylella.pdf?OpenElement](http://www5.consiglio.puglia.it/Giss9/9SagArchivio.nsf/(InLinea)/Risp.Varie-75-IX/$File/relxylella.pdf?OpenElement)

²¹ The Center justified itself fostering the difference between the strain showed during the workshop and the one which caused Co.di.r.o. Symptoms. Anyway this shows that *Xylella* was available for the scientific center.

²² <http://www.osservatorioagromafie.it/wp-content/uploads/sites/40/2017/02/3%C2%B0-Rapporto-Agromafie.pdf>

position countryside where many speculators intend to build touristic resorts in the middle of olive groves. So, the Xylella infectious disease falls like manna from heaven for a land exploitation differently impossible to realize.

Furthermore the mantra repeating that Salento's rural landscape has to change even if radically and hurtfully isn't new nor the theory for which the regulatory system has to be killed.

"I don't claim we have to do a clean slate of the traditional olive growing – says Angelo Godini, Bari University – but perhaps we need to reconsider what I previously expressed (in: Sportelli, 1999): "A brave choice could be the realization of protected olive growing landscaping oasis, quite large for every regional olive kinds in which we can preserve our olive heritage in the way we know it and pass it on future generations". This project should revise and mitigate two national laws' content, defined 'outdated, war and rural economy based' on the olive trees deforestation banning.

Godini makes explicit reference to the super-intensive cultivation, an intuition that dates back to 1999, and to the genetic improvement of olive species even at the cost of radically altering the landscape.

"At least - concludes Godini - for our olive growing we could consider some recent, paradoxical proposals, a different use of oil production: olive trees could be used not for foodstuff but as firewood, beautiful parquet or for lamps or fuel instead of solar panels and wind turbines!".

The solution to the old 'matter' that prevents the demolition of entire olive groves for profit, is offered on a silver platter from a bacterium introduced intentionally and without any permits. For the specialists involved in this fight against the eradication of Xf, there is no doubt: a solution is the eradication of infected trees but also the periodic spraying of insecticides everywhere in order to destroy the plants harboring the bacterium's insect vector. Here the first European Union's funds starts arriving.

Today, the same political personalities who demanded clarity about senseless choices at the beginning of the olive trees' desiccation signs, spend their time recommending revolutions in agriculture whose aim is to weed wherever it's possible during the first *Philaenus spumarius*' development steps, the vector bug better known as "Sputacchina" in Italy (eng. meadow spittlebug), a completely indigenous insect that attacks olive trees just because its natural habitat and food resources have been destroyed.

In this project weeding has to be realized with innovative techniques in public and marginal areas, hard to be reached through the use of non-residual products or using pyro-herbicide tried and tested technique or the innovative high

temperature water vapour technique whose feasibility is subject of deepening studies (on which, therefore, there are still no reliable data reporting if plants suffer), treatments with plant sustainable chemicals (an oxymoron), communitary funds and a "chemical" aerial bombing synchronized in order to spray tons of plant-protection products throughout the whole territory, including cities, and have a minimum effect on the reduction of vector populations"²³.

A widespread weeding determines a severe biodiversity decrease, with a very slowly restorable environmental alteration of the complex trophic networks of an organically healthy soil like the extensive olive groves ones.

Spraying will be done in park areas and organic farmland, too, destroying pollinators, including bees. It is expected the ending for many organic farmers and beekeepers.

These proposals have been elaborated in May 2018 and follow the policy indicated by the Martina Decree, technically operative since June. A decree that requires by law the use of pesticides. Among them only two products are admitted in organic farming: pyrethrins and sweet orange oil, expensive and largely co-formulas which need forms of protection by those who uses it.

The Decree requires substances causing severe damages to neurological development, anencephaly, autism spectrum disorder, memory problems, tremors²⁴.

Although the decree acts on a sensitive issue that in recent months has seen a close confrontation between EU Commission and Italian authorities, it has never been notified by the Government to the European Commission itself, thereby in violation of that loyal cooperation duty established by Treaties.

EFSA repeatedly warned against the environmental risk and health damage resulting from spraying pesticides: "An intensive use of insecticide treatments acted with the purpose to limit the disease transmission and control the vector can have direct and indirect consequences for the environment by modifying whole food chains with a number of knock-on effects and affecting various trophic levels. For example, direct effects of pesticides on pollination is currently

²³ www.leccecronaca.it , 'L'affaire Xylella/ la rivoluzione copernicana'/ i dieci punti – agghiacciati – dei 5 stelle: Cristian Casili si risponde da solo. Noi tacciamo". 21 maggio 2018

²⁴ Cimino A.M., Boyles A.L., Thayer K.A., Perry M.J., 'Effects of Neonicotinoid Pesticide Exposure on Human Health: a Systematic Review' on Environmental Health Perspectives, 6 July 2016

Kumar A., Verma A., Kumar A., 'Accidental human poisoning with a neonicotinoid insetticidi, imidacloprid: A rare case report from rural India with a brief record of letterature', on Egyptian Journal of Forensic Sciences, 22 min e 2013

a matter of serious concern (EFSA, 2013b). In addition, large-scale insecticide treatments also put at risk human and animal's health"²⁵.

It should be noted that the aforementioned issues, concern rights protected by the Italian Constitution (articles 9-32) and subjects which, according to the TFEU, remained in the competence and sovereignty of the Member States, such as health protection [arts. 2 and 6 (a)].

The Public Prosecutor's Office of Lecce, in the past froze the equivalent Siletti Plan, assuming the possibility of a real danger to public health because of the massive use of crop protection products, some of which are forbidden and authorized in an extraordinary way.

According to the Public Prosecutor's Office: "Since the first olive trees' desiccation pathology was highlighted, a series of experiments were carried out in Salento using highly invasive products, even if scientists weren't able to identify the kind of pest. Many of these chemicals are going to be banned by law, in a context of serious environmental impairment. In short these products have been used without any prior study on the impact they would have caused on the environment nor on already present and silent bacteria"²⁶.

The Decree doesn't mention any monitoring or emergency plan consequent to an acute or chronic poisoning. We are talking about neurotoxins, substances whose risk is amplified by their persistence and mobility in the environment. Their presence has been detected in the dust, into the soil, in groundwater, in food, in untreated plants and in vertebrates.

Children directly or indirectly exposed to pesticides are under greater threat because their growing bodies absorb more. Even during the foetal development, they develop less cognitive and behavioral skills. Therefore, after a decision taken by the European Commission on April 27th 2017, all Member States banned the external use of Imidacloprid (http://europa.eu/rapid/press-release_MEX-18-3583_en.htm) but, as it is not yet formalized by the European Commission, this prohibition is not technically still in force. On the other hand, there is a restriction in use since 2013, for which Italy has never asked for an exemption. This is why the use of Imidacloprid is in any case incompatible. So: Martina Decree is in contrast with EU rules.

The decree would facilitate the rapid dumping of pesticides' stock, before their prohibition comes into force in the Union. The rules imposed by the execution calendar, on the other hand, provide four interventions per year, at very close range: two chemical treatments from May to August, two chemical treatments

²⁵ <http://www.efsa.europa.eu/it/efsajournal/doc/3989.pdf>

²⁶ <https://agronotizie.imagelinenetwork.com/agricoltura-economia-politica/2015/12/21/xylella-la-procura-di-lecce-blocca-il-piano-silletti/46949>

from September to December. These interventions bring risks and a significant impact on the environment and on the long-term citizen's health. These risks are totally ignored by those who sign a decree that isn't supported by estimates of preventive environmental impact, and is in contrast with the provisions of Directive 2009/128 / EC on the sustainable use of pesticides, implemented by the Italian State with the legislative decree n . 150 of 14 August 2012.

The European Union aims to reduce the risks and the impact of pesticides on human health and the environment and promotes integrated pest management (IPM) and non-chemical alternative techniques to pesticides. Italy, through the Interministerial Decree in January 22nd 2014, has adopted the "National Action Plan (PAN) on sustainable use of plant protection products", which isn't mentioned in the Decree dealing with *Xylella* emergency.

In the Article 12 in particular the Decree requires an adequate assessment and to take into account public health and safety. Moreover bans the use of plant chemicals in specific areas defined by the EC regulation n.1107 / 2009, like the ones used by the population or by vulnerable groups, or parks, public gardens, sports fields, recreational areas, school grounds or areas near health facilities or protected areas covered by Directives 2000/60 / EC, 79/409 / EEC and 92/43 / EEC. On the contrary, the decree establishes mandatory aspersions throughout the territory, private gardens, connecting roads, public flowerbeds, any place where spontaneous grass grows.

The attempt to stop an annoying bacterium, makes the law violates citizens' and agricultural workers' safety or rules established at national and European level. One of these is the Directive 2009/128 / EC concerning "Specific measures for the protection of the aquatic environment and non-drinking water". So, it is damaging and unreasonable decree also because the imposed measures wouldn't solve the declared objective of eradicating the pathogen.

The available literature tells about previous devastating but useless experiences unable to contain the bacterium; even with the eradication of plants is useless. Directive 2000/29 admits the non-eradicability of the quarantine pathogen. As well as the ISPM, International Standards on Phytoterapeutic Measures which imposes a study on impacts on industry and the environment before any initiative. An emphasis to this facts is also referred by EFSA with a warnin: once installed in the environment, the X-file can't be eradicated, so it is better to refrain from the reckless attempt to implement at any cost measures without any feasibility, effectiveness and sustainability.

A decree illegal as well as illegitimate on which we ask, once and for all, a veto in all its parts and to stop any kind of speculations that cannot exist when we talk about health and life of a whole population. Sustainable alternatives exist but, as

it seems, are not a matter of interest for our public authorities that have given open field to Basf and Monsanto's experiments while farmers and more informed citizens ask for transparent testing. They also claim fund can converge in the perspective of agroecology and of an enlarged, participatory, democratic research.

The crimes that can be hypothesized are: fraudulent violation of environmental provisions; destruction or disfigurement of natural beauties; environmental pollution due to biodiversity and agriculture's impairment and deterioration, including; a concrete danger to public health because of the massive use of pesticides.



Annex. Pesticides' characteristics authorized by the DECREE 13 February 2018 Emergency measures for the prevention, control and eradication of *Xylella fastidiosa* (Well et al.) In the territory of the Italian Republic (GU General Series n.80 of 06-04-2018).

The synergic use of all the substances listed below, for sure can determine an anthropic desert. Since chemical spraying interventions are planned the consequence is the biodiversity's destruction of the residual natural areas, too. Pesticides are a threat to the residents' collective health given their expected massive use and the old presence of some of them in the environment.

Speaking about the substances required by the Decree, the Health Ministry published in June 27th 2017²⁷, Buprofezin can be applied only on non-edible cultures.

On April 27th 2018 the Commission agreed the motion to ban the outdoor use of imidacloprid²⁸, considered dangerous for bees, limiting their use to greenhouses only. Italy was the first country which decided to stop the use of neonicotinoids. This happened in 2008 with a temporary ban, always renewed till today. In May 2013, the European Commission also banned its use for two years, and then extended the prohibition till today.

Pimetrozine is not authorized for agricultural use in the European Union.

Ethofenprox and Lambda Cyhalothrin have to be included in the list of substances that should be substituted as they are bioaccumulative and toxic (Implementing Regulation (EU) 2015/408).

Natural Pyrethrins and sweet orange essential oil haven't been considered in our analysis as they are authorized in organic farming.

²⁷ Decreto del Ministero della Salute del 27 giugno 2017. Modifica delle autorizzazioni in applicazione del Regolamento di Esecuzione UE n. 360/"17 della Commissione che modifica il regolamento di esecuzione UE n. 540/211 per quanto riguarda le condizioni di approvazione della sostanza attiva Buprofezin

²⁸ Insieme ad altri due insetticidi neonicotinoidi clothianidin e tiamethoxam

Active substances	Registered on olive tree	Fitofagi target	Effetti ambientali	Effetti sugli esseri umani	Diffusione ambientale
Acetamiprid (Neonicotinoide)	si	meadow spittlebug	Potentially neurotoxic to birds (ISPRA 2015, Table 48; ARPAT, 2017). Very high toxicity for zooplankton (PAN Pesticide Database). Toxic for Coleoptera and Odonata (ISPRA, 2014, Annex 2, Table 46). Killing predatory insects can promote resistant mites (IPM, 2016). Toxic for earthworms (ARPAT, 2014). Reduces the respiratory activities of soil microorganisms (Yaho et al., 2006). Toxic for lepidoptera (SPRA, 2014, Annex 2, Table 46)	It can have effects on the human nervous system in the development phase (EFSA PPR, 2013).	It was found in 11.2% of the monitoring points of the provisional waters and 3.2% of the underground ones (ISPRA, 2016). It is one of the substances found most frequently in Italy in conjunction with phenomena of loss or depopulation of hives (Bellucci et al., 2016).
Azadiractina (Limonoid)	si	Moths	High toxicity to fish and zooplankton (PPDB).	May cause sensitization in contact with skin. May cause an allergic skin reaction (EC Risk Classification). Suspect mutagen (ECHA All. 3). Possible liver and thyroid toxicity Possible sensitizing agent (PPDB).	
Buprofezin (Tiadiazinone)	si	Cochineal	High chronic mammalian toxicity (PPDB). It may remain in the soil more than 4 months (TD90 = 124-208 days, PPDB). High persistence in water (ARPAT, 2017).	Indicative evidence of carcinogenicity, but not sufficient to evaluate the human carcinogenic potential (US EPA, 2016). May cause damage to organs through prolonged or repeated exposure.	In 2016 it was found in 2.6% of the surface water monitoring points and 1.2% of the underground water monitoring points (ISPRA, 2018).
Deltamethrin (Piretroide)	si	Cochineal, flies, <i>Aromia bungii</i>	Toxic by ingestion and inhalation (EC Reg. 1272/2008). Potentially neurotoxic to birds (ISPRA 2015, Table 48). Very toxic to aquatic life with long lasting effects (PubChem). Extremely toxic to zooplankton: Influences biochemistry, physiology and histology and determines behavioral changes, increased mortality, alterations in growth and reproduction with negative effects on populations (PAN Pesticide Database). Rotifers and	Estrogenic activity in mammals (Mnif et al., 2011). Androgen receptor antagonist (AA.VV., 2013).	Found in cereals, vegetables, fruit and olive oil (Ministry of Health, data 2014, 2015, 2016). In 2014 it was present in 1.3 of the Italian surface water detection points (ISPRA, 2016)

			Copepods are particularly susceptible (Tidou et al., 1992). High Fish Toxicity (PPDB): Highly toxic to bees (PAN, 2016) .and all beneficial insects (Hautier et al., 2005).). The metabolite in soil 3-phenoxybenzoic acid is stable due to hydrolysis and highly toxic to aquatic invertebrates (PPDB), has also been associated with damage in sperm DNA (Meeker et al., 2008).		
Dimetoato (Organofosfato)	si	Moth, fly, awl, Liothrips oleae, Otiiorhynchus	Toxic (Fishel, 2004) and potentially neurotoxic to birds (ISPRA 2015, Table 48). Toxic for the anurios. Toxic for bats. (ISPRA 2015, table 46; Sayim & Kaya, 2006). Causes the decrease of total nitrogen in the soil (Sato, 1983). Very high toxicity for Apis and Megachile, high for Bombus (PPDB; FAO, 2013; Tornier et al., 2003; Marletto et al., 2003; Arena & Sgolastra, 2014).	Suspect mutagen (ECHA All. 3). Endocrine disrupting: causes the activation of the Pregnane X cellular receptor (Mnif et al., 2011) Possible carcinogenic Toxic by ingestion and by contact with skin Causes damage to organs (CLP Classification, 2013) Exposure to organophosphorus can influence neurodevelopment, probably due to the neurotoxicity induced by acetylcholinesterase inhibition (AChE) and can affect males plus females, US Environmental Protection Agency, 2016, EC Reg. 1272/2008; ISPRA 2015, Table 46 ; (Suarez-Lopez et al., 2013); Suarez-Lopez et al., 2013).	It has been found in Vegetables, Fruits, olive oil, Wine (Ministry of Health, 2014-2016)
Etifenproxi (Piretroide)	no	Aphids, moths, miners of the leaves	High toxicity for fish, zooplankton and aquatic plants (PPDB).	It can harm breastfed babies; Causes damage to organs through prolonged or repeated exposure (PubChem; CLH report, 2011). Suspect toxic for reproduction (ECHA, Appendix 3).	Suspected persistent in the environment (ECHA, Appendix 3). It was found in fruit and vegetables (Ministry of Health, 2014-2016).
Imidacloprid (Neonicotinoide)	si	Flies	High Chronic toxicity for mammals. Harmful if swallowed (EC Reg. 1272/2008). Very toxic to aquatic life with long lasting effects (PubChem). High acute toxicity to crustaceans, sediment organisms, earthworms	Repeated parental exposure has been linked to autism cases (Mostafalou & Abdollahi, 2017). In the soil it turns into Chloronicotinic Acid 6 which can cause serious eye irritation	It is among the most frequently found products in monitoring points for Italian surface and ground waters. In 2016 it was found in 51.4% of the surface water

			(PPDB), birds (ARPAT, 2017). Potentially neurotoxic to birds (ISPRA 2015, Table 48). Highly toxic to bees and most insects (Pan Pesticide Database). Toxic for the useful and not-target entomological fauna (Regione Emilia Romagna, 2014). High potential impact class (CIP) for the water sector. High persistence in water. High percolation potential (ARPAT, 2017). Potential water contaminant (PAN Pesticide Database). And among the most widely discovered substances in vegetables (Ministry of Health, 2015).	(CLP Classification 2013).	monitoring points in 8.2% of Italian groundwater (ISPRA, 2018). Found in Vegetables: Olive Oil, Fruit, Cereals: 1.6 (2015). It's among the substances most frequently found in Italy in conjunction with phenomena of loss or depopulation of hives (Bellucci et al., 2016). Found in playgrounds in the South Tyrol (Clausing, 2017; Schwaier & Ackerman-Leist, 2017).
Lambda cialotrina (Piretroide)	si	Flies, Otiiorhynchus moth, cochineals	Very persistent in water, soil and aquatic sediments; very toxic to aquatic life with long lasting effects; highly toxic to bees (PAN, 2016). May cause sexual dysfunction in male rats; can suppress the secretory activity of the thyroid in young adult rats (Fluoride Action Network). It suppresses useful entomological fauna including predators of organisms that cause plant diseases. Not recommended by the FAO for agricultural use (Veres, 2013). High toxicity for all pollinators (NPIC, 2001). Form toxic metabolites for aquatic life. It is relatively persistent in soil (half-life of 33-175 days, PPDB). It interferes with the activity of the nitrogen-fixing bacteria (PPDB). Very persistent in water and for hydrolysis in particular in those acid (stable at pH <7). The 3-phenoxybenzoic acid metabolite is stable for hydrolysis and highly toxic to aquatic invertebrates (PPDB) and has been associated with damage in sperm DNA (Meeker et al., 2008).	It can harm breastfed babies; Causes damage to organs through prolonged or repeated exposure (PubChem). Suspected endocrine disruptor (PAN Database; EU List). Estrogenic activity in cell cultures (Zhao et al., 2008)	It was found in vegetables and Fruits (Ministry of Health, 2014-2016 data).
Pimetrozine (Piridina)	no	Aphid beetles, aleurodid	It can last more than 300 days in the soil and 80 in the water. High chronic	Suspected carcinogenic (ECHA, Appendix 3). Suspected of damaging	Suspected persistent in the environment

		i	mammalian toxicity (PPDB). Mutagen suspect (ECHA, Appendix 3).	fertility and fetus (CLP classification 2013). It can affect most of the major organs at high doses. Very toxic, harmful if swallowed, (PPDB).	(ECHA, Appendix 3)
Spirotetramat (Acido tetramico)	no	Main insects with pungent-sucking mouthparts	Very toxic to aquatic life with long lasting effects (CLP classification 2013).	Reproductive toxic suspect (ECHA, 2016). It can damage the fetus. Possible toxic liver and kidney. May cause lung damage (EC Risk classification; PPDB). May cause an allergic skin reaction. Causes serious eye irritation (CLP classification 2013).	Little permanent in the environment, but some metabolites are stable in aquatic sediments or by hydrolysis (PPDB).

