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“Stolbur” Disease On Lavender: First And Hopefully Last Time Appeared

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Key points

“Stolbur” disease appeared for the first time in Greece, in 2018, on lavender cultivation in the region of Kozani and brought the same catastrophic results that France and Bulgaria faced, some years ago. Numerous of problems are threatening Greece such as destruction of agricultural production on lavender, jeopardy of further pollution in the whole country, decline of aromatic plants exportations and negative economic outcomes not only for the lavender producers but for the agricultural Greek economy too.

This policy brief suggests three possible recommendations:

- Eradication and destruction of diseased plants as quickly as possible and planting healthy plants during the setting up of new plantations.
- Fine imposing for illegal and inappropriate propagating material in the black market.
- Governmental phytosanitary checks to the nurseries and closure of the illegal and non-conformed with the European phytosanitary legislation ones.

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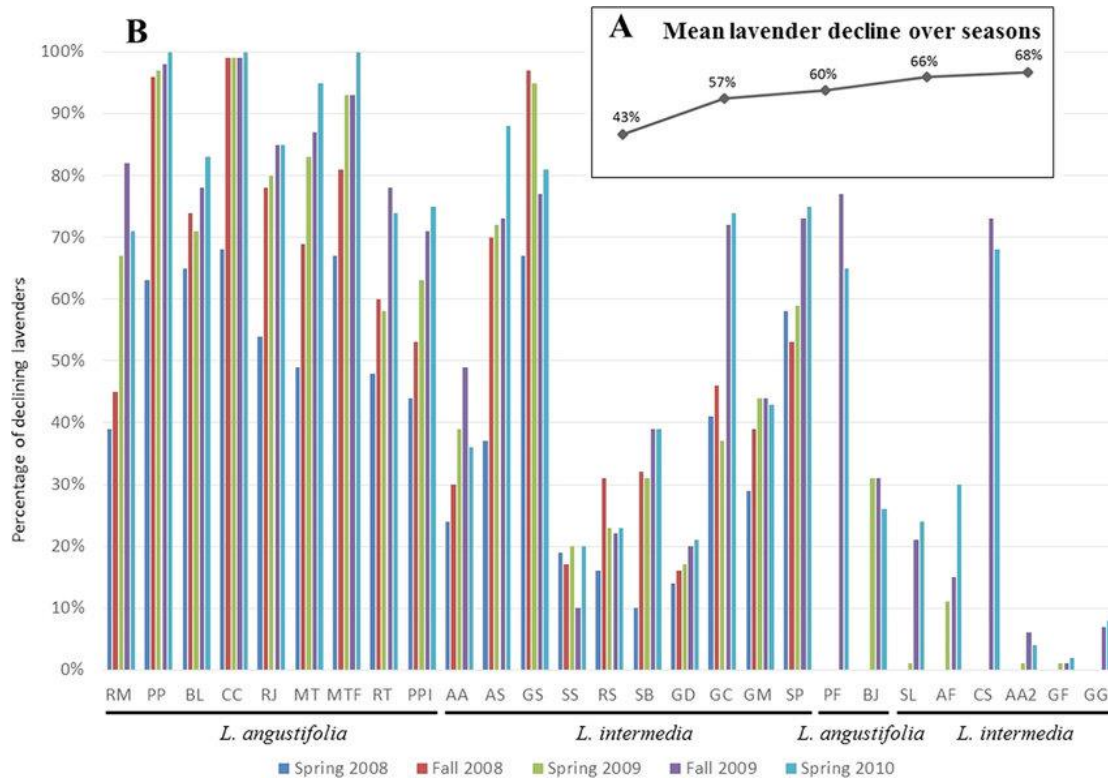
Introduction

The cultivation of aromatic plants and especially the cultivation of lavender in every agricultural region is a very important procedure in order to boost the economy of each country. What happens though, when a serious disease insults the cultivation and destroys almost 100% of the lavender production? A few years ago, “stolbur” disease insulted and destroyed almost each and every part of French lavender cultivation -the biggest cultivation globally- as well as Bulgaria’s -which follows. Unfortunately, this year, the stolbur disease was also expanded in our country and especially in Kozani, in the region of Voio. As a result, approximately 5.000 acres of cultivated lavender have been insulted and the disease tends to be spread to the whole country.

This issue is extremely crucial not only for the producers but also for the general Greek economy notably during a period of economic crisis, because lavender offers a great amount of private and public income to Kozani and Greece in general. Stolbur disease must be eliminated and the main responsible domain is the Ministry of Agricultural Development and the producers themselves, and by taking into consideration that the disease is very difficult to be overcome there must be taken serious measurements in order to have a positive outcome and not face total collapse.

What the problem really is?

Stolbur disease is a major disease that comes from the phytoplasma “*Canaditatus Phytoplasma Solani*” which is a prokaryotic organization without cellular wall. It is important to say that this specific pathogen is the main cause of the destruction of lavender cultivation in French agricultural regions.



The same illness is also responsible for serious problems in the Bulgarian cultivation as well. That makes stolbur disease important because the two countries above are two of the most well-known lavender producers worldwide. Over the past two decades, the disease has literally decimated tens of thousands of acres of lavender in Europe.

Greek production is clearly affected from this situation. Almost ten years ago the price of lavender essential oil ranged from 40-50 euros per kilogram. But the reduced product offer on global markets has led to a gradual increase, reaching and exceeding 100 euros per kilogram in 2018. This steady rise in international prices has led to a significant increase and rapid expansion of plantations in many regions of Greece and particularly in Western Macedonia. Only in HE Kozani is estimated that the cultivated area today exceeds four thousand acres. According to all the indications, the new plantings are expected to overcome by far the two and a half thousand acres in the whole region of Western Macedonia.

And that is the main and serious problem! Stolbur disease appeared in Greece in a time of crisis and have terrible effects not only on lavender cultivation in Voio of Kozani but also in the general Greek economy. In accordance with the findings of the Benaki Phytopathological Institute, the catastrophic "stolbur" disease, which has decimated the lavender crops in France and created similar situations in Bulgaria, has also taken place in our homeland. As Dr. Maria Choleva, professor of the Phytopathology Department of the Benaki Phytopathological Institute said, "it is not a new pathogen in our country, but



it is the first time that it has been found in the cultivation of lavender." Benaki's finding indicates that there are no therapeutics to treat the disease.

So far, the disease has invaded about 5,000 acres in the region of Kozani and has spread throughout the country. There is a need to mobilize and alert the services that must take all the necessary preventive measures immediately, as the disease is not addressed. At the same time, the ever-growing market of both illegal nurseries and the dubious quality and identity of propagating material of aromatic and medicinal plants must be taken seriously into consideration. These both exacerbate the problem and undermine the growth dynamics of true lavender cultivation and along with this, the future of producers.

Several producers in Kozani are facing a serious problem while some others have lost their relatively recent plantations altogether. Serious responsibility is given by some aggressive growers who, unconsciously and without the necessary and legitimate phytosanitary documents, have introduced potentially contaminated genetic material (lavender plants) from a neighboring country. In some other cases this work (production and marketing of propagating material of aromatic and medicinal plants) is made by brokers, completely random. Without the legitimate and necessary licenses, they import reproductive material of an unknown health identity and provide it to their customers.

It is also crucial how several nurseries operate in many parts of Greece. Without the necessary authorizations for establishment and operation defined by both national and European legislation, production and marketing of propagating material and especially of lavender plants has been systematically carried out over the past years, leading to the spread and rapid expansion of the disease across the country.

The problem is further aggravated by the pursuit of the propagation of the reproductive material on the black market, so this situation is completely out of control. The promise of a lower purchase price without legitimate financial documents makes co-operation more tempting but much more precarious for the buyer and the spread of the disease.

And all this under the non-existent interest of the relevant audit services of the respective Ministries (Rural Development and Finance) to protect Greek citizens from the micro-patrons and to improve and at the same time ensure the orderly functioning of the market. By its inertia, the State indirectly cultivates the spirit of illegal production and marketing of propagating material in the country and undermines the further development of the sector. In addition, the revenues from the public funds have been lost.

Stolbur, as said, is a serious problem that must be taken into consideration in order not to insult further the production or even the whole agriculture of West Macedonia. One factor that enlarges the problem is that this catastrophic disease cannot be eliminated with some specific medicine. So, the only way to face and overcome the problem is to focus on the prediction and the immediate action.



Recommendations

Regardless of stolbur disease being not easily cured, there are several measurements that can be taken. To begin with, there must be eradication and destruction of the insulted plants as soon as possible after the onset of the first symptoms while also eradication and destruction of the weeds (such as *Convolvulus*) which are the hosts of the phytoplasma throughout the growing season. The avoidance of cultivation in the area of other passionate plants such as tomato, smoke, green pepper etc. could also be a helpful action so as not to spread the disease while in the same time lavender producers must re-cultivate new and healthy lavender plants in these regions to repeat the process naturally and without jeopardy for another appearance of the disease. Last but not least, spraying the plants with approved plant-protection products¹ to treat the insects-pests of the phytoplasma is also needed in order to completely eliminate the danger of the disease's spread.

As far as the government is concerned, its role to the "STOLBUR ISSUE" is very important. At first, the problem of illegal importation of dubious quality and identity of propagating material of aromatic and medicinal plants is the main factor that causes the disease. Government must take immediate action according to the legislation and make the appropriate controls and checks as in the borders -where the importations are made- as on the inside of the country where producers exchange propagating material. If government finds out that illegal and inappropriate propagating material is being used, then it must rapidly impose the appropriate fines and conform the perpetrators according to the law.

The second duty of Greek government is to solve the problem of illegal nurseries that take place in the whole region of our country. The lack of legality is a major factor of the spread of stolbur disease especially when many nurseries do not have the legal licenses and they do not conform with the European legislation. As a result, infected quantities of lavender are moving across the country as these nurseries do not follow the right phytosanitary procedure. So, it is crucial that government must take immediate actions in order to make more often phytosanitary checks to lavender plants and also make sure that every nursery is conformed with the legislation by having more employees in charge of doing those checks. If unlawfulness is found out, then enormous fines must be imposed, and the illegal and non-phytosanitary checked nursery must be completely closed or make everything possible to be legal again.



Conclusion

To sum up, Stolbur is a disastrous disease which has insulted irreparably the lavender cultivation in Kozani and needs immediate action in order to stop the expansion and further damage to Kozani's agricultural economy. Citizens and government jointly must take into serious consideration the situation and take the appropriate measurements to save the healthy production left and restart the cultivation to achieve regain the total loss.



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