



EU project LIFE13 ENV IT 000461 / "EVERGREEN"

"Environmentally friendly biomolecules from  
agricultural wastes as substitutes of pesticides  
for plant diseases control"

**DISSEMINATION ACTIVITY & PRODUCTS**  
**CONSORTIUM INSTM**  
**Nov. 1, 2015 – Apr. 30, 2016**

Monitor's Meeting 13-05-2016

- Sergio Miele, Enrica Bargiacchi –





# ACTIVITY FOR THE PROJECT Month 15-20

- **D7** - Articles and press releases
- **D8** - Networking
- **D10** - International conferences and fairs
- **D11** - Dissemination to institutions and policy makers

## INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D7 – Articles and press releases**

2 page Abstract to ICP-2016 Wien - - July 11-15, 2016

registration No. 280

**“Life+2013 EVERGREEN identified polyphenol botanical biostimulants as potential substitutes of agrochemicals to increase plant resistance to *Meloidogyne arenaria* Chit.”**

Enrica Bargiacchi<sup>1</sup>, Margherita Campo<sup>1</sup>, Gilberto Milli<sup>2</sup>, Sergio Miele<sup>1</sup>

<sup>1</sup>Consortium INSTM, Via G. Giusti 9, I-50121 Firenze, 50121, ITALY (smiele.agr@instm.it)

<sup>2</sup> Fattoria Autonoma Tabacchi (FAT), I-06012 Città di Castello (Italy)

- **2 page Abstract enclosed**
- **A Poster presentation is under preparation**

# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D8 – Networking:**

with Regione Umbria

- PSR funded **Project QualiTaba** (Traced quality of tobacco in a context of sustainable production in Central Italy) → double check in the year after this Project end (August 11, 2015)

With UNITAB (Union of European Tobacco Growers), CIA (Italian Confederation of Farmers), CONFAGRICOLTURA (General Confederation of Agriculture), FEDAGRI-Confcooperative, OPTA, and OPIT

- Meetings to prepare the proposal for the 2016-2020 Agro-environmental measures for tobacco in Regione Umbria, Toscana, Veneto and Campania

With Regione Umbria, Fattoria Autonoma Tabacchi, OPTA and OPIT

- Project for Certified Organic Tobacco from nursery to cured leaf starting in February 2016

With UniMI (coordinator):

- Proposal for an AGER Project *“From OLive oil proDuction wastes to added-value compounds and biomaterials: an integrated BiOrefinerY – OLDBOY”*

With Politecnico di Milano, UniPR and UniPI:

- proposal for a PRIN Project: *“Zero-Waste Agriculture for a circular bioeconomy in the production chains of tomato and tobacco”*: from crop residues pharma and biostimulants/crop protectant

With Consortium Italbiotec and Politecnico di Milano

- Proposal for a Fondazione CARIPLO funded Project: *“Sustainable Nanostructured Materials to Formulate Innovative Living Biostimulants (SuN-MaBios)”*

## INSTM ACTIVITY FOR THE PROJECT Month 15-20

- D8 – Networking with Univ. of Kentucky (USA) dr. Mihaylova-Kroumova at Tobacco Workers' Conference, Nashville, Jan. 2016:



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D8** – Networking with Univ. of Kentucky (USA) dr. Mihaylova-Kroumova at Tobacco Workers' Conference, Nashville, Jan. 2016:

**Nicotiana natural products inhibit black shank disease in tobacco.** A. Mihaylova-Kroumova; Artiouchie, I.; Wagner, G. J., University of Kentucky, Lexington KY USA

Black shank disease, caused by the fungus *Phytophthora parasitica* var. *nicotianae*, is a major annual threat to all types of tobaccos worldwide. ...The goal of this work was to test the antifungal activity of several natural products that are synthesized by tobacco and other *Nicotiana* species, and **secreted to the leaf surface**. We hypothesized that cis-abienol, sclareol, labdenediol and phylloplanin can suppress race zero and race one-caused disease in burley tobaccos KY14 and KY14xL8. .... **Sclareol** was very effective in inhibiting race zero caused disease in both tobacco lines. In KY14xL8, race one infection was completely inhibited by sclareol while in KY 14 it was reduced by 85% and delayed by six days. cis-Abienol showed high inhibitory properties toward the disease. Race zero infection was completely subdued in KY14, and race one infection was reduced by 80% and 70% in KY14 and KY14xL8, and delayed by six to ten days. Labdenediol reduced the disease by half in eight week-old KY14 plants. ...

We consider **sclareol** to be the best candidate for future studies **due to its antifungal properties** and availability.



## INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D8** - Networking with the Dep. of Chemistry, and Industrial Chemistry Univ. Of Pisa

- Foto will be sent

Meeting of March 19, 2016 with Prof. Federica Chiellini and Lab technician researcher



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- D8 - Networking with SIPCAM-OXON



Meeting of April 14, 2016 at SIPCAM-OXON Central Office at Pero (MI). From left to right: the General Manager for Biostimulants Sandro Secco, CEO Giovanni Affaba, the President of the Administrative Board Nadia Gagliardini, Sergio Miele and Enrica Bargiacchi INSTM.



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D8 - Networking** with Lab de Grasas y Aceites Dept. de Ciencia y Tecnología de los Alimentos, Facultad de Química. Montevideo. Uruguay, Dr. Ignacio Vieitez Osorio co-Chairman at AOCS 2016 Salt Lake City (UT), USA, May 1-4, 2016, Session May 4, 2016



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D10 - International conferences and fairs**
  - Oral presentation at 47<sup>th</sup> Tobacco Workers' Conference Nashville (TN), USA, Jan. 11-14, 2016 (presentation on CORESTA WEB)








ENV IT 000461

## Multiplex use on tobacco to determine leaf major components, and maturation

**E. BARGIACCHI <sup>1</sup>, G. MILLI <sup>2</sup>, M. CAMPO <sup>1</sup>,  
A. ROMANI <sup>3</sup>, S. MIELE <sup>1</sup>**

<sup>1</sup> Consortium INSTM, I-50121 Firenze (Italy)  
<sup>2</sup> Fattoria Autonoma Tabacchi, 06012 Città di Castello (Italy)  
<sup>3</sup> PHYTO LAB-DiSIA - Università degli Studi di Firenze (Italy)

47<sup>th</sup> Tobacco Workers' Conference, Nashville TN, Jan. 11-14, 2016

By photobiology it was possible to assess crop increased maturation induced by the use of Chestnut tannins (biostimulant effect)

# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D10** - International conferences and fairs

AOCS 2016 Salt Lake City (UT), USA, May 1-4, 2016



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D10** - International conferences and fairs
  - Abstract accepted for a poster presentation at **ICP-2016 Wien** – July 11-15, 2016, registration No. 280 (see D7 activity). International Conference on Polyphenols is the reference World Conference on this subject
  - Abstract submitted for an oral presentation at **CORESTA Congress 2016** Berlin – Oct 9-13, 2016, preliminary planned title and subject: *“Approaching Organic Tobacco: a possible target with the results of Life+2013 EVERGREEN Project”*



# INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D11** – Dissemination to institutions and policy makers → Event at **Accademia dei Georgofili** (Nov. 13, 2015)



The slide features a light green background. At the top left is the European Union Life logo with the text 'LIFE13 ENV IT 000461' below it. At the top center is the EVERGREEN logo. At the top right are two logos: the INSTM logo (a blue hexagon with white dots) and the FATTORIA AUTONOMA TABACCHI (FAT) logo (a yellow triangle with a red 'A'). The main text is centered and reads: 'Estratti a base di tannini di castagno come biostimolanti per la difesa delle colture dai nematodi galligeni: risultati delle prove in campo'. Below this, the authors are listed: 'Sergio MIELE <sup>(1)</sup>, Gilberto MILLI <sup>(2)</sup>, Enrica BARGIACCHI <sup>(1)</sup>'. At the bottom, two footnotes are provided: '(1) Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali – INSTM, I-50121 Firenze (Italy), [smiele.agr@instm.it](mailto:smiele.agr@instm.it)' and '(2) Fattoria Autonoma Tabacchi (FAT), I-06012 Città di Castello (Italy)'.

**Estratti a base di tannini di castagno  
come biostimolanti per la difesa delle  
colture dai nematodi galligeni: risultati  
delle prove in campo**

Sergio MIELE <sup>(1)</sup>, Gilberto MILLI <sup>(2)</sup>, Enrica BARGIACCHI <sup>(1)</sup>

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(2) Fattoria Autonoma Tabacchi (FAT), I-06012 Città di Castello (Italy)

“Chestnut Tannin  
Based Extracts as  
Biostimulants to  
Protect Crops from  
Gall-Nematodes:  
Results of the Field  
Tests”

## INSTM ACTIVITY FOR THE PROJECT Month 15-20

- **D11** – Dissemination to institutions and policy makers →
- Public Roundtable at Sansepolcro (Apr. 23, 2016) with the Candidate Mayor Mauro Cornioli and all the Kentucky growers of Tuscan Valtiberina, and the presence of about 100 citizens, included the principal entrepreneurs of the area
- Photos and movie will be included