# CAPTAIN VASILIS & CARMEN CONSTANTAKOPOULOS FOUNDATION

# **International Day for Olive and Olive Oil Day**

- 12 October 2018 Chora Messinia Cinema "Rex" Coordinator: Ioannis Kyriacopoulos, Director of the Agricultural Economics and Veterinary Administration of Messinia
- 13 October 2018 Navarino Dunes, Costa Navarino Coordinator: Ioannis Kapolos, Dean of TEI of Peloponnese

Responsible for the minutes of the conference: Kelly Dimitroulia

Copy editor: Dida Plemmenou

Translation: "Dia logou" - Translation Services

#### **CONTENTS**

Message of the International Olive Council for the Celebration of the World Olive Day

Inter-municipal actions for the promotion and distribution of olive oil The ACOM case

"Olive, the blessed product of Phocis: Opportunities for sustainable development through social cooperatives in the sectors of agri-food and tourism"

Finest Greek tastes Network
A proposal for the Greek culinary culture

The culture of the Mediterranean diet and its connection to Messinian gastronomy

Adoption of new technologies in olive growing in the region of Trifilia

Herbs - Collaborations - Extractions - Research:

The emotional side of Slow Travel: Project "the Route of DOP Umbrian Extra Virgin Olive Oil"

Olive oil and promotion of tourist destinations: Perspectives and development of personal experiences

"Olive tourism as a tool for the development of olive growing areas: Successful experiences from Spain"

"Olive oil tourism": a tool for tourism development, the case of Greece"

International Olive Oil Trade of Mediterranean Countries and Challenges for Greek Businesses

"Environmental management of olive groves: an opportunity for the natural environment, the mankind and the economy"

# Message of the International Olive Council for the Celebration of the World Olive Day

In 1992, the member countries of the International Olive Council (IOC) decided to perpetuate their common cultural heritage by celebrating World Olive Day.

It is a rich and varied heritage stretching back to antiquity, when the olive tree was a symbol of peace, harmony, friendship and glory. As the tree associated with the ancient Greek goddess Athena, the olive represented strength and victory, wisdom and fidelity, immortality and hope, and wealth and abundance.

In Abrahamic religions, the olive is a sacred tree of peace and reconciliation. It symbolises the universal man and its oil is the source of divine light.

From the UN flag with its crown of olive branches encircling the world, to Picasso's famous dove of peace carrying an olive branch, and in countless other works of art, coin engravings and stamps, the olive tree is used to express messages of hope and reassurance.

Now, more than ever, we must remember these symbols and work together to safeguard this heritage and transmit it to future generations.

Olive growing, which began around the Mediterranean more than six thousand years ago, now spans five continents. With approximately one and a half billion olive trees worldwide over more than eleven million hectares, it is a crop that contributes significantly to sustainable economic and social development.

In addition to being a source of revenue for 30 million people, olive growing provides a barrier against desertification protects against erosion and acts as a carbon sink.

Olive oil is at the heart of the Mediterranean diet, which has been included in the UNESCO intangible cultural heritage list. It has varied

aromas and tastes, offering a myriad of gastronomic possibilities, in addition to proven therapeutic properties.

World Olive Day, which is celebrated this year at the headquarters of the IOC and in its member countries, is an opportunity to present this Organisation, its achievements and its objectives.

The IOC, which represents 94% of producer countries and 71% of consumer countries, has embarked on a new phase with the entry into force of the new International Agreement on Olive Oil and Table Olives, which was negotiated in 2015 at the United Nations Conference on Trade and Development (UNCTAD).

The objectives of this new Agreement respond to a move in the sector towards sustainable development, the consolidation of information sharing on the olive economy, improving knowledge on the benefits of olive products and embracing consumer countries. The documentation and information centre that will be set up next year will be an important contributing factor in this regard.

As of this year, the work of the Organisation is based on a four-year plan that aims to position the IOC as a world forum in which to discuss matters of concern for the sector with a view to identifying present and future challenges and determining common policies for implementation.

This four-year plan will provide effective support to member countries in the areas of olive growing and olive oil technology through the transfer of technology, technical assistance and training, conducting studies on matters of common interest and implementing a network for the exchange of phytosanitary information.

The Executive Secretariat of the IOC, which currently works with more than 300 experts and 150 laboratories and tasting panels across member and non-member countries will continue to support the work of the groups of experts and to strengthen the networks of recognised panels and laboratories in order to equip countries with the tools needed to improve and monitor quality. In so doing, the IOC aspires to develop trade and protect consumers from fraudulent and misleading practices.

Under its economic and promotion portfolio, the Organisation will work to consolidate and disseminate global statistics on the sector, strengthen activities for the promotion of the IOC trade standard and support the celebration of World Olive Day.

Inter-municipal actions for the promotion and distribution of olive oil The ACOM case

Giorgis Marinakis President of the Association of Cretan Olive Municipalities (ACOM) -Mayor of Rethymnon

Abstract: ACOM, representing almost all the olive growers in Crete, has contributed -since its establishment- to the upgrade of the conditions in the production and the improvement of the conditions in the promotion of olive products in the areas of its member municipalities, while it protects and highlights the historical, cultural and environmental elements of olive growing and cultivation in Crete. It also contributes to market transparency, buyers' competition and producers' information. It proposes the establishment of an olive growing protection organisation in the Region, which will be responsible for the protection against the olive fruit fly (Dacus oleae). ACOM carries out several parallel actions for the promotion of olive oil and olive in general.

**Key-words:** olive growing, treatment against olive fruit fly, olive oil promotion, Crete

Olive growing is an economic activity that in many municipalities a fairly large number of people of the country are occupied and the olive oil is an important source of income.

In Crete, where there are local olive growers in almost all municipalities in rates ranging from 50 to 100% and their problems are largely shared, it was considered that the establishment and operation of a local collective body dealing with or assisting in their solution, was advisable and necessary.

In 2001, the first effort was made to set up and operate the Association of Cretan Olive Municipalities (ACOM), where 59 out of 62 Kapodistrian municipalities of the island willingly joined.

According to the association's statutes, ACOM is a "private non-profit company", located in Rethymno, and is run by a 9-member Board of Directors, which includes mayors, deputy mayors or even municipal councilors.

The member municipalities of ACOM contribute to its finances with an annual contribution proportionate to their population, ranging from 800 - 8,800 euros/year. In fact, most of them pay 2,400 euros/year.

The main mission of ACOM is: To elaborate and develop a single strategy and proposals and to implement actions and projects aiming at upgrading the conditions regarding the production and improving the conditions applied in the promotion of olive products in the regions of the member municipalities while protecting, highlighting and exploiting the historical, cultural and environmental elements of Crete's olive growing and cultivation.

What has been achieved by ACOM during its operation is very important and has gained respect in the consciousness of olive growers and decision makers of the island.

ACOM's accomplishment, from a financial point of view, was mainly based on European programmes, programmes of the International Olive Council and funds provided by the Region of Crete. Municipalities' contributions were mainly used to cover administrative costs and the necessary participation in the programmes.

### **CONTROL OF THE OLIVE FRUIT FLY**

- 1. Damage caused by the olive fruit fly is the factor that can seriously deteriorate the quality of olive oil, affecting mainly its acidity and its oxidation along with its other qualitative characteristics.
  - 2. Ground spray applications of the olive grove with poisoned protein

baits, massively applied, has proved to be the most effective and the most environmentally and nutritionally friendly method for a qualitative and quantitative production.

Other alternative methods, such as preventive treatments with baits, parasites and others, can contribute to a reduction in bait-based sprayings, but cannot ensure production when applied



separately over large areas.

- 3. The poor and ineffective protection against the olive fruit fly leads to serious economic and environmental impacts, the main ones being:
- $(\alpha)$  The degradation of the quality of olive oil with an increase in acidity and oxidation, together with a significant alteration of other qualitative factors directly related to the price of the product.
- (b) Producers get forced to proceed to individual spray application of full wetting of trees with strong insecticides resulting in serious effects on the environment, consumer health and product defamation.
- 4. The effectiveness of the method in practice in recent years has been significantly in jeopardy by strong bureaucracy and under-funding problems. It has been reported that while the required procedures have increased and about 45 decisions are required for medicine supply and staff management, the allocated appropriations have been continuously decreasing from 14 million/year in 2011 to about 7 million euros in 2016. Thus, these two factors lead to a delay, on the one hand, and to a poor implementation of the method, on the other hand.
- 5. The crucial economic, legal and technical factors required for sufficient effectiveness of the treatment against the olive fruit fly are:
- ✓ The products for the protection against the olive fruit fly to be provided within the defined timeframes (insecticides and proteins)
  - ✓ On time hiring, training and regular payment of the personnel.
- ✓ Protection measures of all the trees of the protected area regardless fructification rates.
- ✓ Supervision and control of the spraying applications by using modern technological advancements (GPS, dose measuring devices etc.), in order for the spraying machine to be tracked and the dose of the spraying liquid per tree to be controlled.
- ✓ Depiction of "focal positions" in orthophotomaps of each region based on the data of the Olive Cultivation Register.
- 6. Rationalising and ensuring the collectability of the 2% levy paid by producers to olive oil mills for the protection against olive fruit fly can

cover a significant proportion of total expenditure and enable its proper implementation.

In Crete, with an average production of 100 thousand tons per year, the contribution of the producers (2%) can, if properly collected and distributed, be worth 6-7 million euros.

#### **PROPOSAL**

### **Establishment of an Olive Oil Protection Organisation in the Region**

The overall planning and implementation of the aforementioned proposals could be assigned to a special body in each Region, possibly as a private law entity, whose mission would be the overall administrative, scientific and financial responsibility of the treatment against the olive fruit fly along with the collection of funds and the management of any running costs.

Its means can be derived from State subsidies, as it is now the case, the money given for the protection against olive fruit fly, which should be proportionate to the protected trees rather than the production and be withheld from the funds for Green Growth promoted by the CAP or other specific EU programmes.

# A. ACTIONS ON OLIVE OIL PROMOTION Olive Oil Price List

In order to contribute to market transparency, buyers' competition

and producers' information, ACOM has been involved in publishing a "Weekly Producer's Price List", which demonstrates prices from 40 branded companies and associations of Crete, Peloponnese, Lesvos, as well as from Cyprus, Italy and Spain.

This price list, which has been published for 16 years, is posted on the ACOM website, <a href="https://www.sedik.gr">www.sedik.gr</a>, and is sent by e-mail as "NewsLetter" to the municipalities of ACOM and to over 1,000 registered ACOM members throughout Greece.

ΣΥΝΔΕΙΜ ΔΕΛ Στην Ε/	TIO TIM	ON EAR	ΟΛΑΔΟΥ , Ιταλία	29-8-17	020757
Πιν.1 ΤΙΜΕΣ ΠΑΙ		WW.sed		ΔA (€/F	(a)
Πιν.1α Ελαιόλα	50 EET	οα Παρί	Bévo 0.3	Balluci	v
EDIXEIPHEEIE	B AUV.	16 Avy.	22 AUV.	29 AUY.	METABOA
КРНТН		100000000	10.00000000	Same	-14
Α.Σ. Χανίων	3.80	3.80	3.80	3.80	0
ΕΝΩΣΗ ΣΕΛΙΝΟΥ	3.70 M	3.70 M	3.70 M	3.70 M	0
Α.Σ. ΠΛΑΤΑΝΟΥ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	-
КОЛУМВАРГА.Е.	3,70 M	ΔΑ	ΔΑ	ΔΑ	
E.A.Z. PEGYMNOY	3,50 M	3,50 M	3.50 M	ΔΑ	-
Ε.Α.Σ. ΗΡΑΚΛΕΙΟΥ	3.50 M	3.50 M	3,50 M	3.50 M	0
Ε.Α.Σ. ΠΕΖΩΝ	3,60 M	ΔΑ	3,60 M	3,60 M	0
Ν.ΑΕΡΑΚΗΣ Σητεία	ΔΑ	ΔΑ	ΔΑ	ΔΑ	
Α.Σ ΖΑΚΡΟΥ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	-
ΑΣ Κριτσάς	ΔΑ	ΔΑ	ΔΑ	ΔΑ	
Α.Σ. ΣΚΟΠΗΣ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	+
ΑΝΟΣΚΕΛΗ Α.Β.Ε.Ε.	ΔΑ	ΔΑ	ΔΑ	ΔΑ	-
ΜΠΡΑΧΙΜΟ Πέραμα	ΔΑ	AA	3.70 M	ΔΔ	
ΑΦΟΙ ΚΥΔΩΝΑΚΗ Τυμπάκι	ΔΔ	00	ΔΑ.	AA	
ΑΣ ΒΟΥΚΟΛΙΩΝ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	- hale
ΑΓΓΕΛΙΔΑΚΗΣ Α.Ε. Ασήμι	ΔΑ	AA	AA	3,90 M	
ΒΑΛΑΒΑΝΗΣ Δ. Ο.Ε. Αστικι	3.80 M	ΔΑ	3.85 M	3.85 M	0
HANAFIOTAKHE BANGAGIR	3.80 M	AA	3.80	3,80	0
AAMIIANTAKHI KOALOO	3,70 M	3.70 M	3.70 M	3,70 M	0
ΠΕΛΟΠΟΝΝΗΣΟΣ-ΝΗΣΙΑ			3,10	3,10	-
ΚΩΣΤΑΝΤΟΠΟΥΛΟΣ ΑΕ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	100
(πρώην ΕΑΣ Μεσσηνίας) ΑΓΓΕΛΑΚΟΠΟΥΛΟΣ Σ. Εlectillo - Αίγιο	3,80 M	3,80 M	3,80 M	3,80 M	0
ΕΑΣ ΚΥΝΟΥΡΙΑΣ	ΔΑ	ΔΑ	ΔΑ	ΔΑ	
Α.Σ Ελαιώνας, Γαργαλιάνοι	4,10	ΔΑ	ΔΑ	ΔΑ	
Αφοι ΑΡΚΑΔΙΝΟΥ Ζάκυνθος	ΔΑ	ΔΑ	ΔΑ	ΔΑ	
EAX NEXBOY	3,75 M	3.75 M	3,75 M	3.75 M	0
ΜΑΥΡΟΥΔΗΣ Λευκωσία	3,20 M	3,20 M	3,20 M	3,20 M	0
ZEKEN	3,50 M	3,50 M	3,50 M	3,50 M	0

The contribution of this price list to market awareness and transparency is significant as shown by the large number of producers

and traders visiting it, which during the peak marketing season reaches 2,000-3,000 visitors a day.

# Submissions of memorandum for the promotion of olive oil in retail and food service sector:

Memoranda have occasionally been submitted asking the following:

- (a) Prohibition of mixing olive oil with seed oils that was approved and satisfied (Joint Ministerial Decree No. 323902 (Government Gazette 2026/vol.B '/18-09-09)).
- (b) Regulation on directly marketable olive oil from the producer to the consumers which is pending.
- (c) Mandatory listing in the menu of the olive oil used in food service, which was approved and institutionalized, but unfortunately is little applied in practice. (Terms and Conditions for the Sale of Products and Services Market Rules No. A2 -861/14.8.2013 (GG B' 2044/22-08-2013))
- (d) Increase of the maximum permissible packages in food service sector which was approved and institutionaliased. Packaging up to 10 liters is already permitted (GG 2983-30.08.2017 vol. B' "Handling-Marketing of products and services Article 42 (3)
- (e) Mandatory use of non-refillable branded or one-use packaging on the tables of food service businesses, which was approved and started being implemented from 1-1-2018. (GG 2983-30.08.2017 vol. B' "Handling-Marketing of products and services Article 42 (4))

### Conferences on "Good Practices in Olive Oil Trade"

They were organised in Chania, Rethymno, Agios Nikolaos, Sitia and big villages of Crete, with speeches by experts and specialised scientists and a vast participation of producers and other parties concerned.

# Foundation and support of "Olive Tastes" Networks

Within the framework of a special Interreg programme, networks of Exclusive Use of Olive Oil "Olive Tastes" were established in Crete and Cyprus. The Networks include food service businesses (taverns, hotels etc.), restaurants and trading companies.

Support was given to the



Με το έργο υλοποιήθηκαν 26 Δράσεις

administrative services and the promotion of the networks with advertisements in the media, with the creation of a website (www.olivetastes.eu), with special table top product display stands, forms, etc.

# Olive Oil Mills Awarding for applying good practices

In order to improve the distribution conditions of olive oil and to establish competitions, an Award Ceremony was organised for the olive mills, which are distinguished for applying good practices when handling olive oil.



# B. CAMPAIGNS FOR THE PROMOTION OF **OLIVE OIL**

# 1. "Youth Awareness Campaign"

A campaign for youth awareness on olive and olive oil was organised, which included various ongoing actions, such as:

- (1) Approval of a programme titled "Youth awareness on healthy, flavourful and cultural value of olive oil" by the International Olive Council, with a budget of 38,500 euros and ACOM participation by 50%.
- (2) 3,000 copies of a book published with the title "Games with the Olive" for children up to six years old.

Πρόγραμμα: Ευαισθητοποίησης Νεολαίας

Θεατρικά δρώμενα μαθητών για την Ελια και το Λάδι Θεατρικές παράστασεις Δοκιμή ελαιοεδεσμάτων





- (3) 2,500 copies of the book "On the Olive roots" for older children and adults.
- (4) Distribution of books to children at events ideal for children, organised in collaboration with schools in different areas of Crete.
- (5) Book with "Theatrical plays pertaining to olives and olive oil" It is distributed to assist the organisation of theatrical performances. After the sold out of the first edition, the second printing was launched.
  - (6) Awareness events organised at schools

Joint awareness events on olive and olive oil were held by children groups of 2-3 schools per municipality, which included speeches and student theatrical performances, attended by a lot of parents, relatives, friends and other people concerned.

### 2. Events organised for teachers' information

With a view to informing and raising awareness among teachers regarding olive and olive oil, we organised:

-Teacher's Day: "On the olive roots", in **Kavousi**, lerapetra.

-Seminar for Teachers: "Olive and Olive Oil: Youth Awareness" at "LATO" cultural centre in Kritsa and HERMES Hotel in **Agios Nikolaos**.



### 3. Events for the World Olive Day 2016, 2017 and 2018

As part of the World Olive Day 2016 and 2017, with the support and under the auspices of the International Olive Council, a range of events took place such as:

-Conference: "Olive and olive oil in Crete, Culture-Quality-Health-Economy" with speeches, a theatrical performance by the students, an olive oil mill awarding ceremony and a participation of 150 people on November, 26 at MAIX in Chania

-Conference: "Olive and olive oil in Crete, Culture-Quality-Health-Economy" with speeches, a theatrical performance by the students, a hotel awarding ceremony and a participation of 120 people on November 29, at the House of culture in Rethymno.

-Conference: "Olive and Olive Oil: Quality-Environment Culture" on November 15, 2017 at MAIX in Chania, with speeches, a theatrical performance by the students, an olive oil mill awarding ceremony.

- Conference: "Olive and Olive Oil: Quality-Environment Culture" on November 24, 2017 at at the House of culture in Rethymno, with speeches, a theatrical performance by the students, an olive oil mill awarding ceremony.
- Conference: "Olive and olive oil: Quality-Health-Economy" on December 27, in Gergeri with 120 attendees.



Οι πλακέτες με την Χρυσή, Αργυρή και Χάλκινη Μινωική Ελιά

In order to raise hotels' awareness in Crete and encourage them to contribute to the promotion of olive oil, award ceremonies were established for those units which in various ways highlight the olive oil in their hotels.

### **World Olive Day Events 2018**

This year, in the framework of the World Olive Day 2018, ACOM again upon the approval and under the auspices of the International Olive Council will organise various events in Crete such as:

-Conference: "Proper use of olive oil in food service", at MAIX, Chania.

-Conference: "Promotion of olive tourism in Crete", which is planned to take place at a large hotel that has been awarded for its involvement in actions about olive oil.

### Books available to tourists at hotels

There are books printed in English titled "Games with the Olives" for young children (2,000 copies) and "On the olive routes" for older children and adults (3,000 copies)

Tourists can find these books on product stands at 60 large hotels partners of Crete, who, by the way, subsequently fill in a questionnaire.

Πρόγραμμα: Ευαισθητοποίησης Νεολαίας Εκδοση παιδικών βιβλίων στα Αγγλικά







Διάθεση στα παιδιά Τουριστών μέσω Ξενοδοχείων

## Declaration and promotion of monumental olive trees

ACOM, continuing the efforts launched in 2002, proceeded to the registration, declaration and promotion of 25 monumental olive trees in Crete following the specific procedure published in ACOM website www.sedik.gr.

# Proposal for monumental olive trees for the EUROPA NOSTRA Award

In order to further promote and highlight Crete's monumental olive trees, ACOM drew up and submitted to the EU a special dossier for EUROPA NOSTRA to be awarded to 14 monumental olive trees of Crete, the owners of which signed thus a declaration of acceptance.

The EUROPA NOSTRA Awards are granted every year by the EU to 30 cultural heritage conservation projects or initiatives that can be proposed by 37 EU and non-EU countries.

### **Redevelopment projects of Monumental Olive Trees**

ACOM submitted to the Region of Crete a funding proposal for the project of redevelopment of the surrounding area of 14 monumental olive trees in Crete, for which the amount of 10,000 euros was approved.

The main objectives of the proposal were:

- -The conservation and promotion of the Monumental Olive Trees as living monuments of our ancestral heritage.
- The enrichment of Cretan inland with attractions for the development of cultural, environmental and gastronomic tourism in the inland.
- -The indirect but effective promotion of the cultural and healthy value of Cretan olive oil, which comprises the second most important economic resource of Crete.

"Olive, the blessed product of Phocis: Opportunities for sustainable development through social cooperatives in the sectors of agri-food and tourism"

Elli Kotsanou – Romvotsanou

Chairman of Delphi Tourism Committee and City Council, Social Economy Executive

**ABSTRACT:** The olive grove of Amfissa dominates in the heart of the County of Phocis and is the development lever of the regional primary production.

A wonderful monument of UNESCO covered by the programme for the protection of the Traditional Olive Tree connects gastronomy, tourism and processing.

However, the occupation with its systematic cultivation over the last years has been decreasing or it is done without specialized technical knowledge and not integrated initiatives.

The response to this problematic cultivation can be given through social cooperatives of public bodies and individuals aiming to take and implement initiatives geared to the sustainable development of the region.

Worthwhile practices have been recorded in the international bibliography and adopted by areas with similar features and gradually resulted in: a) a better tourist experience gained by their visitors, b) improvement of the offered olive and olive oil products, c) word-of-mouth experience promoting the destination, d) employment creation, e) reduction of seasonality, f) social impact and sustainable development.

**Key-words:** Elaionas (olive grove) of Amfissa, social cooperatives, sustainable development, exchange of expertise knowledge, Management plan

The celebration of the World Olive and Olive Oil Day for places so significantly present in the production and trade of these two important products highlights their primary role and importance in every aspect of its life.

It is not only its indisputable nutritional value, but the economic, cultural, historical and touristic scope under which we can assess the features of an olive growing region or even a country and try to work on the future prospects.

The eternal process of olive cultivation and olive oil extraction comes as a response to dilemmas like "we are in crisis, economic instability, lack of financial liquidity, what to do without subsidies, there is no extroversion" and so on.

My speech, therefore, refers to a particular region of Greece, Phocis, and specifically Amfissa; a region where Eleonas (olive grove) counts over three millennia of presence. The Pelasgians are the first growers and the same area has remained unchanged ever since.

One million olive trees spread over an area of 55,000 stremmata (1 stremma = 1/10 hectares) from Erateini, Municipality of Dorida, to Amfissa and produce the PDO obtained olive product "Konservolia Amfissis".

An important part of the olive grove belongs to the protected zone of UNESCO as it extends to or frames the archaeological site of Delphi.

The local economy depends significantly on olive cultivation.

Individual growers and cooperatives with the Union of Agricultural Cooperatives of Amfissa as the predominant one, grow, produce, export and process the olive and its products.

The blessed product of Phocis, as commonly characterised, stands out for its durability, which is attributed to the particular soil-climatic conditions in which it grows.

Planting is done in clusters on a higher level to hold water and soil and in some areas in terraces. The maintenance of this type of cultivation with trees reaching a certain height was achieved through the programme for the protection of the traditional olive groves from 2007- 2013.

Which is, however, the future of this important area within the wider environment of the region characterised as touristic with almost one million tourists per year?

There has been observed a considerable change of young growers in recent years regarding the way they approach olive cultivation and growing, while seeking ways to upgrade the product and increase its added value.

Marketing policies, acquiring technical knowledge, cooperatives and extrovert actions are steps that have already brought some first results, with distinctions in international competitions and in distinguished locations in Greece and abroad.

The management plan for Eleonas, being developed by the Municipality of Delphi in collaboration with the Agricultural University, will be the engine for the future of Eleonas, as it provides for the first time the establishment of a management body with main responsibilities:

- A) Licencing of existing businesses.
- B) Operation of the irrigation network and the technical water supply projects by the streams.
- C) Licencing of small construction projects.
- D) Tourist promotion of Eleonas.
- E) Drawing up a disaster risk management plan.
- F) Drawing up a waste management plan.

Besides all these very important priorities set by the side of local governments, there is another equally important opportunity for the promotion of olive-cultivation activity through the sector of social economy.

Social and solidarity economy is the third pillar of our economy, between the private and public sector.

Through the social economy there is an opportunity given to highlight the agricultural development of our region, combined with gastronomy, tourism and education. The outcome of collaborations leads to the sustainable development of the region, saving resources for promotion and extrovert actions, strengthening existing alliances, creating new tourism products.

At the same time, new professions emerge.

Let's see some representative examples of what is going on in our region today.

Informally formed groups of producers from different fields of activity try to attract consumer interest in standardization units, where pure experience and information on the history, production methods and characteristics of the product is provided.

The visitor has there a direct contact with the product in its nature, which means actually in the olive grove.

One such example is the group of "Syndelphis".

The group has a cooperative character, with no legal status but with the moral commitment of the basic principles of operation, on which it was founded.

The members of the group are the following producers:

Skorletou Family: They produce the premium olive oil PYTHIO

RELLOU Family: They produce the premium honey MELLIN

Fokida Social Cooperative ( $Kol.\Sigma.\Pi.E$ ): They produce soap from organic Amfissa olive oil and employ people with psychosocial problems

Andreou distillery:They produce a grape distillate (tsipouro) with the brand name "Ρακαριό του Σάλωνα" (Rakario tou Salona)

They have made a special reception area at the olive oil standardization unit, located in Eleonas (olive grove), in Amfissa, in the area of Sernikaki, they organise tasting and promote and sell all the products. Meanwhile, they jointly participate in international and other food fairs.

The Municipality of Delphi obtains their common product basket as a traditional gift.

It is worth mentioning that the framework of cooperation with local government and such schemes of social dimension is being explored in order for land and olive trees which are considered inactive property of the Municipality to be allocated to those who can exploit them for social benefit.

Moving towards this direction, we organise small-scale conferences, carry out educational seminars and promote collaborative actions. With the recent update

of the Law 4430/2016 on the Social and Solidarity Economy, we believe that there is the potential for a substantial and productive cooperation at a local level (interlocally with the assistance of local government) in order to promote our local product, preserve its value, maintain a strong local brand related to history, gastronomy and annual cultural events.

# Finest Greek tastes Network A proposal for the Greek culinary culture

#### **Sotiris Bolis**

# Project Manager of Finest Greek Tastes Network, associate of Regional Development Company of Parnonas

ABSTRACT: Since its establishment, the Network of Municipalities of Finest Greek Tastes has supported the sustainable and environmentally friendly production and integrated/endogenous rural development. It also approaches rural heritage and recognized PDO and PGI products as elements of the local identity, which form strategic aspects of development and can enhance tourism, alternative tourism, wine tourism and many other types of tourism related to gastronomy and nutrition. It has organised the "Finest Greek Tastes" Project with events, conferences and festivals, such as Melitzazz Festival in Leonidio, Koroni TzaresFest, Oinoxeneia in Aigialeia a.o.

**Key words:** Network of Municipalities of Fine Greek Cuisines, gastronomic culture, agro-nutritional innovation, alternative tourism.

I would like to talk to you about how we came up with the idea and how we implemented the Network of Municipalities of Finest Greek Tastes.

The products, starting from olive and olive oil, are exceptional on their own but cannot stand easily on their own. They eventually become part of the overall diet.

There are basic elements in the Greek countryside and gastronomy that make up the product of our rural world. In recent years, many European countries and the European Union itself have begun to set aside the idea of the sectoral approach to support the products and moving towards the spatial approach. It strives to support the sustainable and environmentally friendly production, the integrated/endogenous rural development, and this has been reflected in Cork Declaration 1996, Cork 2.0 2016, Agenda 2000, Pillar II of the Common Agricultural Policy (CAP).

An important part of this approach is rural heritage as an element of local identity. The particular products of a place are the basic elements of rural heritage, mainly because it is the raw material (link to the place of production and its physical characteristics) and the passed down techniques and technologies (link to culture and skills).

A significant part of this production is the recognised PDO and PGI products that are the strategic elements of rural development. They can boost tourism, alternative tourism, wine tourism and many other types of tourism related to gastronomy and nutrition.

The integration of gastronomic heritage as it evolves over time, but also how it is currently shaped, in tourism and rural development, is a serious matter of public-private partnerships in order to have multiplier effects.

Gastronomy: There is a list of words you may not know. They are though words, hidden treasures, gastronomy of the country:

Gkogkes, patlitzania, triftadia, pitaroudes, anevato, kunefe, kavourmas, bardouniotiko, volvoi, San Michalis, kelaidi, kapsalisto, pasiokouftedes, akanes, plasto, tsigarolachana, kleftiko, sfela, mplatsara, gkaroufa, lalagia, trevlofai, flomaria, batzina, spetsofai, regali, formaela, kremmideri, samousades, singlino, lagoto, boubari, mesenikola, retzeli...

They are all hidden treasures, unexploited opportunities of our place. We have to concentrate on what we have and further develop it. Some of them are already PDO products, such as anevato, San Michalis, sfela, formaela, mesenikola...

The "Finest Greek Tastes" Project was launched in order to deal with PDO products, but it has evolved and deals now with tastes because the product itself is not as strong as the taste. LEADER Programmes and development companies that collaborate for such actions, have agreed that this is a very nice idea and 21 of the 48 development companies held a meeting and, having as coordinator the Development Company of Parnonas, set the plan to make efforts to highlight the finest Greek tastes, i.e. gastronomy, products, fine tastes and culture.

The idea went ahead, the auspices of the Ministry of Rural Development and Food and the Central Union of Municipalities of Greece were granted, chefs and the people of media worked together. There was hardware created and posted on the Internet, accessible to everyone.

Tools such as presentation video of all the areas of the project, their products and their gastronomy were created, through travelogues of the places, interviews with local producers and chefs along with gastronomic events.

(see YouTube: Finest Greek Tastes)

Studies were conducted:

- Study on "Qualitative stock of Greek production and gastronomy".
- "Market Study Research on the entry of PDO, PGI certifications".
- "Research on the increase of value added in Greek diet and quality products"

Action Plans were elaborated:

- "Elaboration of an action plan/marketing plan for the promotion of Greek tastes".
- "Elaboration of an Action Plan and Strategy for the establishment of the "Finest Greek Tastes" Network.

We thought that there should be a network in order to set up, build on and use the tools. There were 56 municipalities in the country, 22 OTA Regional Development Companies and 4 Universities and Social Agencies. Then the establishment of the Network of Municipalities of Finest Greek Tastes as a Civil non-profit Company (AMKE) followed and the festive foundation took place on 23/11/2015 in Brussels at the Committee of Regions.

After been established, the Municipality of Piraeus joined in 2016. What took place: 1<sup>st</sup> General Assembly, Athens 2016, 2<sup>nd</sup> Board of Directors, Piraeus 2016, 2<sup>nd</sup> General Assembly, Koroni 2017.

What is more, there are things done but not as many as we wanted, since the project postulated work to be done, but still, in 2018, there is no institutional framework as previously expected. We made a series of presentations though and implemented projects as follows

- 1. **Congress** "1<sup>st</sup> International Wine Tourism Congress", Santorini 2016.
- 2. **Workshop** "Beekeeping in Andros: Past, Present & Future Prospects", Andros 2017.
- 3. **Workshop** "Planning the CLLD/LEADER 2014-2020 programme in the Municipalities of Kefalonia-Ithaca", Kefalonia 2017.
- 4. **Workshop** "Local authorities today: Challenges and Policies in Greece and Europe", Larissa 2017.
- 5. **International workshop** "ENRD Workshop on Extending LEADER Innovation", Brussels 2017
- 6. **Workshop**: "The CAP after 2020 and the challenges of the new era", Ministry of Rural Development and Food, 27<sup>th</sup> AGROTICA, Thessaloniki 2018.
- 7. **Conference** "International Symposium on Vine, Wine and Health", Heraklion 2018.

# **Projects of the Network**

- 1. **Moustakeio Klirodotima of Andros:** Study on the Sustainability and Operation of the "Mediterranean Gastronomy Center Moustakeio Klirodotima (Moustaka's legacy)" at Piso Meria, Andros.
- 2. **Koroni Mediterranean Diet Festival 2017:** "Branding and promotional material for the festival".

# The strategy of the Network is the following:

- **1.Strategy and final goal: Productive economy.** The ultimate goal of the Network is to create the conditions for the productive economy to take over.
- 2. **Agri-nutritional strategy.** The broad form of the Network, its broad base and its emerging national development can give it an active role in shaping the National Agri-nutritional Strategy.
- 3. **National Quality Platform: Tool and Goal.** The Network can function as a National Quality Platform, supporting and certifying the individual elements as well as the overall gastronomic experience of Greece.

### The Network has focused on the following:

Utilisation, support and highlight of Greek gastronomy and culture.

Focus on the 4 basic elements (4 basic design axes)

- 1. **Product**: the finest local products.
- 2. **Cuisine**: the local cuisine with its typical tastes.
- 3. **Place**: Places of production with their special morphological and anthropological characteristics.
- 4. **Culture**: The culture and traditions the culinary habits of each place create.

# **Examples of Actions taken by the Network:**

- Identity/branding of regions
- Recording and utilising of gastronomic potential
- Local institutions of gastronomy and culture
- Local and national synergies

- Education
- Agri-nutritional innovation
- Actions of private interest

## The aim of the Network is:

- Agri-food production, culture and tourism.
- National coordination of resource utilisation, mainly of the LEADER/CLLD programme.
- Local culinary communities.
- Tradition, folklore and contemporary dimension.
- Greek gastronomic identity. Branding for "Greek Gastronomic Culture".

# There are examples of culinary institutions and communities.

Such representing examples of institutions of culinary, cultural and historical interest supported or formed by the Network and its executives as well as local communities are:

### 1. Melitzazz in Leonidio

Local gastronomy and culture

### 2. Koroni TzaresFest

Mediterranean diet

### 3. Oinoxeneia in Aigialeia

Local wine and gastronomy

## 4. The Malvasia myth

Wine, history and culture

More specifically,

### Melitzazz in Leonidio

The Tsakonian gastronomy with its leader, **Tsakonian eggplant of Leonidio**, the Tsakonian dialect, the tradition, the dance, the textiles and the architecture are revealed through an ethno-jazz alternative point of view, with music, dances, tastes and cultural actions in the streets of Leonidio and mansions.

## **Local support community:**

Several institutions and volunteers and over 150 businessessponsors

Acclaim:

- Best City Award
- EFFE Label Remarkable festival 2015-2018
- European Year of Cultural Heritage 2018 label
- Case study at conferences
- Case study in 4 postgraduate dissertations
- Auspices of Ministry of Tourism, Ministry of Rural Development and Food, Ministry of Culture and Sports.

#### **Koroni TzaresFest**

From the Arabic "dgiarrah" to the Spanish "jarra" and from the Italian "giara" to the famous Koroneiki "tzara", Mediterranean people preserve in their pots the secrets of their Mediterranean culinary culture.

4th Mediterranean Diet Festival

**Koroni TzaresFest** 

29/6-1/7/2017

### Oinoxeneia in Aigialeia

An innovative, multidimensional institution in the second half of August, a feast of the unique wines and vineyards of the region, of the local gastronomy, landscapes and culture of Aigialeia.

Local support community:

- "Oinoxeneia Network" with 30 wine, food service and accommodation businesses
- Culinary community of Aigialeia (under establishment)
- Acclaim:
- Best City Award
- Tourism Award
- PELOPONNESE People of the year Award
- European Year of Cultural Heritage 2018 label
- Case study at a conference
- Auspices of Ministry of Tourism, Ministry of Rural Development and Food, Ministry of Culture and Sports.

### The Malvasia myth

The history, the culture, the myth of the most famous wine in old times. The journey of the Malvasia wines from Monemvasia and Crete to Venice and from there to the Europe of the Middle Ages and the Renaissance.

A combination of local and transnational actions under Greek coordination.

We are building up an international network for the myth of Malvasia wine with the participation of production areas from all over the Mediterranean.

A tourist utilisation and interconnection with the place and gastronomy.

Support communities are formed in all regions.



The culture of the Mediterranean diet and its connection to Messinian gastronomy

Vicky Inglezou

**Director of the Maniatakeion Foundation** 

ABSTRACT: The Maniatakeion Foundation systematically highlights the cultural presence of Koroni and the Municipality of Pylos - Nestor and promotes the cultural and development-related dimension aspect of the Mediterranean diet. It participates in congresses and conferences for the internationalisation of the comparative advantages of Messinia. Scientific studies have highlighted the Mediterranean diet as a nutritional model for the promotion of health. The roots of the Mediterranean diet are inextricably linked to the culture, tradition, moral values and customs as well as the social institutions. The Mediterranean diet connects rural development, gastronomy and, of course, tourism, thus contributing to the promotion and growth of our country.

**Key words:** Mediterranean diet, sustainable development, gastronomic heritage, Messinian cuisine.

The Maniatakeion Foundation is a private, non-profit, public service institution based in Athens, established in 1995 by the economist and businessman Dimitris Maniatakis and his wife and writer Eleni Tagonidi - Maniataki.

The ultimate goal of the Foundation is the systematic promotion of the historical and cultural presence of Koroni and the Municipality of Pylos-Nestor in their evolving course of Greek civilisation over time along with the discovery, promotion and internationalisation of the comparative advantages of the wider region of Peloponnese. The involvement of the Maniatakeion Foundation in the Mediterranean diet began in 2009 when the Ministry of Culture and Tourism got in touch with us and asked letters of support from the local officials of Koroni to

the transnational proposal indicating the Mediterranean diet to be included in the representative list of the Intangible Cultural Heritage of UNESCO. Since then, it has been appointed by the Municipality of Pylos-Nestoras as their technical consultant and has a leading position in initiatives and actions aimed at preserving and highlighting this intangible treasure.

In 2008, Greece, Italy, Spain and Morocco took the initiative to highlight the cultural dimension of the Mediterranean diet and thus submitted a transnational nomination file to UNESCO in order for the Mediterranean diet to be included in the world treasures, which was actually happened. Koroni was named among the emblematic communities, along with Soria from Spain, Cilento from Italy and Chefchaouen from Morocco. However, while scientific studies have highlighted the Mediterranean diet as a nutritional model for health promotion, the Greeks are considered to abandon Greek traditional diet, which consequently leads to increased subsequent obesity and illnesses. At the same time, the reputation for the benefits of the Mediterranean diet exceeds the limits and becomes a rightful legacy of all mankind. The term is synonymous with healthy nutrition, longevity and low rates of heart attacks and cancers. This nutritional model is depicted in the food pyramid, where the wheat, olive and vines dominate, and, together with their products, flour, olive oil and wine, are the characteristics of the Mediterranean diet and culture.

The roots of the Mediterranean diet are inextricably linked to the culture, tradition, moral values and the customs, as well as the social values such as family, friendlship, socialisation, hospitality, characteristics that people living around the Mediterranean basin have in common.

These characteristics can be summarised in the fact that the Mediterranean diet:

- brings people together.

- contributes to the sustainable management of the countryside and the natural resources, as well as to the maintenance of traditional fishing and farming practices.
- contributes to good health.
- is an element of intercultural and intergenerational exchange.
- is at the heart of major social events.
- is constantly present in the oral tradition.

On December 4th, 2013, the UNESCO Intergovernmental Committee decided to enlarge the countries that supported the Mediterranean diet, adding Croatia (Brac & Hvar), Cyprus (Agros) and Portugal (Tavira).

The Mediterranean diet can and must be a key tool for the development, expressing a particular and unique way of lifestyle but at the same time exploiting a part of the Greek historical, social and cultural wealth. We need to redefine the relation between exploiting and promoting the Mediterranean diet as an asset of intangible cultural heritage with sustainable development.

The current challenge is to associate it with such terms and conditions in order to establish a relation between society and nature. The acknowledgement of the Mediterranean diet by UNESCO has tangible economic benefits, as it gives the opportunity for local farming to develop, can act as an effective way of promoting local agricultural products, which are also the basis of the Mediterranean diet, and contribute to the promotion and development of our country.

In modern theories of economic development, the cultural heritage is simultaneously recognised as a steam engine and trigger event for economic and social reorganisation.

International experience is rich in examples where the successful implementation of this new approach to the economic value of cultural heritage overturned the decline and led to economic and social development.

Koroni, Messinia, Greece has the opportunity to exploit the good "culture". The raw material existed, was extremely interesting for the

visitor but it did not have any value added. The coincidence is unique in order to highlight culture by linking it directly to rural development and gastronomy and, of course, to tourism, thus creating a dynamic and complex model of development.

Gastronomy is the art of choosing, preparing, serving and enjoying good food. It has proved to be the greatest cultural power among the people of the world, more than the linguistics or other influences have on the peoples.

The features of societies and people over time are formed through their contact with the natural surroundings. For the Mediterranean people, one of the elements that played an important role, not only in economic and social reality, but also in practice of worship is the ultimate Mediterranean tree, the olive tree. It could be said that the olive tree is a bridge that connects the peoples.

According to Greek mythology, Elais was the daughter of Anius and Dorippe and the goddess of olive oil. She had two daughters: Oeno and Spermo, goddesses of wine and grain respectively. These three great products of nature, olive oil, wine and wheat, have been connected with the Greek land since ancient times.

"Fructuous" Messinia, according to Euripides: The beauties of Messinian land, one of Europe's most biodiverse regions, in combination with eating habits and culinary suggestions of local cuisine, are the result of a fertile land and the care of Messinian people for their traditions. Maintaining the traditions, the original local products and the nutritional history of the area, the cultural heritage stays alive.

What Messinian gastronomy suggests:

Olive and olive oil, grapes and wine, dried figs, raisins, cheese, beverages, honey, "pasteli" (sesame honey bar), "diples" (dipped fried pastries foliage) and "lalagia" (crunchy dough strips), "singlino" (cured pork from Mani peninsula), balsamic vinegar and herbs.

The mountain and the sea together with some million olive trees are allied to offer the region all the guarantees to make it known and

sought-after and of course a local culinary tradition all over the world. It is mainly the area with the largest production of olive oil that "competes" with the prefectures of Crete for the first place. Olive oil is the basis of the Mediterranean diet and is the very heart in the kitchen of Messinia.

International experience and individual studies have both shown that the most important aspect in the development of tourism in a region are its comparative advantages. It is estimated that 3 million European travellers have gastronomy and not the sun and the sea as the main criterion for their holidays, a number that is actually doubled if we include the Americans as well.

Gastronomy, if properly integrated into the tourist product, can increase GDP by 1 billion and create 50,000 new jobs, and within 3 to 5 years it may be one of the three main reasons for choosing Greece as a tourist destination.

According to the Greek Tourism Confederation (SETE), more 500,000 tourists would come to Greece if we improved and promoted our gastronomic heritage.

Gastronomy and tourism highlight an extremely dynamic synergy, indicating how local food tradition becomes the driving force of tourism development. Gastronomy tourism is the combination of quality local products and the tourist product on which such a large part of the Greek economy is based.

Examples of culinary tourism services are the organisation of gastronomy seminars, tasting events, guided tours and familiarisation with traditional products and methods of their production, cooking shows, participation in gastronomic shows, festivals, etc.

The main target of every tourist destination is to make the tourist fall in love with it so that he/she returns one day, and as it is known, love goes through the stomach.

Within the multi-faceted crisis the country is going through, a new development area is launched, as long as we deal it with seriousness and

do not undervalue it with second-rate products. This is the comparative advantage in a globalised society that seeks diversity and uniqueness. Greek land produces it. There is nothing else to do that respect and advertise it. The bet is the successful interconnection of the primary and secondary sector of the agricultural production process with consumption while simultaneously promoting and highlighting the Messinian cultural heritage, linking it to gastronomy and local traditional products.

The Maniatakeion Foundation independently and as a technical consultant of the Municipality of Pylos-Nestor promotes the cultural and development-related dimension of the Mediterranean diet. It participates in congresses and conferences, with speeches organised by various institutions in Greece, working with the municipality for the Mediterranean Diet Festival in Koroni, and, as a foundation, we organise the Mediterranean diet in the European programmes we take part in.

In conclusion, it should be noted that linking people to history and culture can be the best way to make them get to know each other, find their place in the flow of time and define their future!

According to Epicurus: "The beginning and the root of every good is the pleasure of the stomach".

Adoption of new technologies in olive growing in the region of Trifilia

Antonis Paraskevopoulos

Director of the Directorate of Rural Economy and Veterinary of Trifilia

ABSTRACT: The Directorate of Rural Economy and Veterinary of Trifilia is innovating with the use of Precision Agriculture, which by means of information technology and electronics applied in agriculture, assists the farmer in making decisions on a better management of his farm by achieving a reduction in production costs. We also improve the application of ground bait sprayings to control the olive fruit fly using GIS and GPS. At the same time, implementing the Green Water Drone programme, we provide farmers with real-time irrigation needs. Another programme applied in the region of Chora is IoF2020 which links agriculture and food. By using the new technologies of Intelligent Agriculture or Precision Agriculture we are able, together with the human resources and the characteristics of the geographical area, to promote the olive oil and improve its quality.

**Key words**: Precision Agriculture, Wireless Sensor Networks, GIS and GPS Implementation, Green Water Drone, IoF2020.

We will present our own efforts to promote olive oil and support olive growing. We will talk about new technologies. Let's begin with the term Precision Agriculture, which defines the management of the spatial and temporal variation of the fields, in order to improve the efficiency of the farms and/or to reduce the negative impact on the environment from the non-rational use of inputs. Precision Agriculture is a farm management system that uses information technology and electronics applied in agriculture to assist the farmer in making decisions on a better management of his farm.

We use technology in olive fruit fly control. The presentation concerns the study of the application of GIS and GPS technology in the management of bait sprayings, which is the most money-saving, effective method that has protected the Greek olive oil from the presence of residuals in foreign markets.

The aim of the programme is to improve the application of ground bait sprayings against the olive fruit fly by using GIS and GPS, as we achieve thus control and optimisation of the quality of sprayings (qualitative work), final work measurement, which is what is to be achieved, cost and environmental burden reduction. Proper devices, software and orthophotographs are needed to depict the work. Olive fruit fly, this small insect, can cause damage up to 150,000 to 180,000 tons a year which can significantly affect Greek income as a whole.

We started this implementation in 2006, following Phokis in 2005, we bought the GPS, we downloaded special software on the computer and every day we recorded each area. We had the depiction, we watched and found out how we could go further and correct the problems, omissions and mistakes in the project in real time, watching the treatment against the olive fruit fly.

We had real-time information on everything, such as timetable, site selection and spraying direction. The data concerned each point both for sprayings and baits.

This year we will implement an electronic bait to track the olive fruit fly, in order to track, in turn, olive fruit fly detections as well. An implementation has already been made with the Agricultural University. Olive fruit fly creates foci, which if we know and we have data for, we can modelise its biological cycle and have very good results. This has been the case since last year in Chania, in Rethymno and in the rest of Greece. We move on to new technologies without replacing the human factor.

Another programme has to do with the implementation of Precision Agriculture, the first one in our country, in an olive grove of 91 stremmas with 1,700 olive trees. We wanted to see which farming technique

increases organic matter and whether we can make variable fertilisation, based on Precision Agriculture; to assess thus two different interventions in weed management so that, either mechanically or combined, we have an integrated control, in order to see where fertility increases and what we get by fertilising and reducing costs.

We mapped the 91 stremmas. We found out that the vast majority of the fields had 3 to 5 times more fertiliser than they needed; immoderate use and large cost. So, we had to proceed to variable fertilisation, differentiating it from point to point within the same field and calculating by computer the quantity that the fertiliser distributor would allocate to the specified location and point.

We made measurements for potassium and phosphorus. We noticed that inputs are not used rationally, soil analyses are not performed. Data coming from soil analyses, when proceeded, are not interpreted by specialists to achieve production increase, cost reduction and benefit.

In this way, we managed to have cost-efficiency, which means that we had 22% more organic substance in the integrated management rather than the milling, 26% less soil resistance to chemical weed control and 30% less fertilisation than the farmer did.

Then, we used the wireless networks in Precision Agriculture to get information on crop warnings to growers. We set up networks that measure natural sizes in the region of Kyparissia, we put the measurements together on a local level, wirelessly received by a computer, and we watched everything from the office.

The wireless sensor networks are electronic systems that measure physical quantities such as ground moisture, temperature, solar radiation, and data wirelessly transferred to a computer.

A new programme applied from this year, with the collaboration of the Agricultural University and the University of Peloponnese, is the development and implementation of an innovative and cost-effective system for the precise planning of irrigation and the monitoring of crops. The programme is called Green Water Drone. It suggests an irrigation

programming system that will provide real-time irrigation needs to producers through a factor that reflects the aquatic state of the crop.

Besides, the proposed innovative system for measuring and applying the water stress index, which was rated first in the assessment of "Research and Innovate", for its focused and real-time management of irrigation needs of crops with high water requirements, is a combination of the advantages of focused and short-distance temperature measurement of overhead infrared sensor systems, with the potential for effective and, above all, low cost coverage of large satellite telemetry systems. It is based on the use of drones with the appropriate equipment for the direct measurement of the foliar temperature, with spatial accuracy that can be dynamically adjusted to density and crop heterogeneity.

Another programme implemented in Chora is IoF2020, linking things to agriculture and food. "Nileas" is a partner. There are 74 partners from Europe and it is the largest programme funded by the EU in agriculture. Greece is represented by the Agricultural University, "Nileas" and the Directorate for Rural Economy and Veterinary of Trifilia, while the University participates as a consultant.

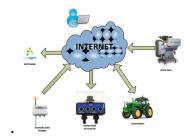
5 sectors, 19 demonstrations of use.

# Aims of the programme:

- Use of sensors in crop management to optimise costs, increase production and quality.
- By using the internet of things we can achieve:
  - Crop management based on data collected by sensors
  - Remote control of agricultural machinery
  - Activation of automatic irrigation and lubrication systems
  - Control and activation of systems in food storage and processing units

IoF2020 paves the way for intelligent agriculture that can offer higher production yields in a more sustainable and environmentally responsible

way, while making the European agricultural sector more competitive in an increasingly globalised world.



For this purpose, it conducts large-scale demonstration experiments in dairy production, arable crops, fruit, and meat and vegetables sectors covering the entire supply chain (from field to shelf). More than 70 partners from universities, research programmes, companies, cooperatives and producers have been involved in the project and have received direct funding from the European Union of € 30 million.

- The systems consist mainly of meteorological stations and ground sensors (humidity, temperature and electrical conductivity) that continuously analyse the data and support the farmer in making decisions mainly concerning irrigation.
- Particular emphasis should be placed on the installation of a system for remote irrigation controls through a mobile telephone network, which can control the start of the pump by using a relay and the opening and closing of the solenoid control fluid valve.
- Irrigation is monitored by flow meters and electronic manometers while the user can access all of his data through his computer, his tablet and his mobile phone.
- Through proper irrigation, high production and quality of both olive and olive oil are achieved.
- In addition, a reduction in production costs is achieved due to reduced inputs and the efficiency of agricultural treatments.
- Lastly, IoT systems will be installed in the olive oil mill, too, to monitor the quality of olive oil during its production.

• The data collected from the demonstration fields regarding the subsequent quality and quantity of olive will be analysed in order to evaluate the use of IoT systems in agriculture.

The aim: control in the field, control in olive oil mills and interconnection of all sensors on a central basis.

#### **FARMING IN GREECE**

What happens in our country:

## Schinos (Nileas)

- In Chora of Trifylia, 350 meters above sea level, there are 190 trees of organic farming, of Koroneiki and Mavrolia (black olive) variety, in an area of 11 stremmas.
- The sensors installed measure
  - Soil temperature and moisture at 30 cm and 50 cm
  - Wind speed and direction, rainfall, temperature, relative humidity
  - Automatic irrigation system activated by the computer, when the level falls below the given limit.

#### Other areas are **Tzitziras** and **Vagies**.

The region keeps track of the developments. The prefecture is the first olive-grower. We must grow, work together, highlight the benefits of olive oil PDOs and PGIs, to cooperate and pay attention to mistakes in the use of inputs and plant protection, contaminants, residues, oils, etc. All need improvement: olive oil mills, growers, services, local government, synergies, so that we can improve through all of them.

There was an input saving of up to 8% for 2017 based on the first results.

As you realise, with the exploitation of the new technologies of Intelligent Agriculture or Precision Agriculture we are able, together with the human resources and the characteristics of the geographical area, to promote the olive oil, improve its quality and enter the markets as a leader with high standards and a great potential.

#### Herbs - Collaborations - Extractions - Research:

#### **George Stavropoulos**

### **Research and Development agronomist at Korres Natural Products**

ABSTRACT: The cosmetics company KORRES works over four-fold: Herbs - Collaborations - Extractions - Research. It is directly related to the Greek nature and the Greek producers. The research focuses on the primary sector and the plants of our country, so a network of ethical collaborations has been developed. The company created the cosmetics line "Eleonas of Crete" in collaboration with the Agricultural Cooperative of Organic Farmers Messara in Heraklion, Crete. The production process complies with all the quality standards that ensure the quality of olive oil, from cultivation to the production of olive oil in the mill. This range of olive oil products has a great impact on consumers especially in America and Europe.

**Keywords**: Greek herbs, organic seed production, extracts, contract agriculture, olive oil.

I will talk about the involvement of our company in olive oil, which, we say, represents us all around the world, from another perspective.

We are a cosmetics company and we work on a four-part philosophy: Herbs - Collaborations - Extractions - Research. We refer to Greek nature, Greek producers and the emerging cooperations, and how research focuses on the primary sector, and specifically, on our country's plants.

We carry out extensive research on the Greek flora in collaboration with the Agricultural Laboratory of the Agricultural University of Athens and how endemic plants can be integrated into organised farming and exploited, since, when we talk about protection of current conditions, we mean in a way their exploitation as well, with respect, of course, towards the environment and the genetic wealth of our country.

We also participate in programmes regarding the primary sector.

- We choose appropriate areas for qualitative and quantitative performance.
- We choose partners.

- We provide technical support to partner producers in organic production of high-standard (reproductive material) seedlings.

The company has been operating for over 20 years. The last 10 years it has been producing extracts. Until then, the extracts were imported. There was no extraction unit for medicinal and aromatic plants. So, the plants were first sent abroad to be extracted, and after the process had been completed, they were provided to us by herb extractor suppliers.

Thus, we have developed a network of "ethical" collaborations. We call it that way as we pass through an evaluation process to end up to the suppliers; a process which also includes social factors, such as not financially robust areas, cooperative producers, social institutions.

We contribute to the protection of endangered species and the conservation of plant populations.

There is a list of plants that the extracts of which we used and we wanted them to be replaced by Greek plants. This list was given to the Agricultural University of Athens 10 years ago and since then it has been significantly modified, as we regularly change the plants.

We support farming through contractual agreements.

We offer training and consulting support to organic farming.

We have cooperations from Thrace to Crete and from Thesprotia to Samos, such as the Saffron (Krokos Kozanis) Growers Association in Kozani, the Agricultural Association of Aromatic Plants in Agrinio, the Drogi Cooperative in Komotini, the American Farm School in Thessaloniki, the Agricultural Prisons in Agia, the KETHEA-ITHAKI (Counseling, Re-Entry and Family Support Centre) in Thessaloniki and small farmers.

All plants can have pharmaceutical and aromatic properties.

#### **OLIVE OIL**

Olive tree: The mythical tree in Ancient Greece.

The first historical references consider olive oil to have been initially used for its cosmetic properties.

We have created a series of cosmetics called "Cretan Olive tree groves" and we work with the Biogrowers Cooperative of Messaras in Heraklion, Crete, where many young people have joined and there is a significant export activity.

The production process complies with all the quality standards that ensure the quality of the olive oil of our interest, from growing to olive oil extraction in olive oil mills.

Therefore, a range of products concerning the face, hair and aroma has been developed.

It is important to look into the reasons for the great success this range of olive oil products has particularly in America and Europe. From the first to the second year, which practically means from 2006 to 2007, we had a 326% increase in sales, and until a little while ago compared to last year's sales, we had a 100% increase with the signs showing even greater intensity of this good progress.

The main reason behind this is the strong history behind the product, because every consumer who looks for a Greek product in the US, or in Europe, knows the olive oil, knows the area, and is based on the history of the organic management of an olive grove; and the history of people of course.

#### HERB EXTARCTION UNIT

Our herb extraction unit, the first in Greece, is worth a visit.

The fundamental research we conduct includes collaboration with various universities, the Kapodistrian University, the Pharmacy Uuniversity, the Agricultural University of Athens, and we participate in several European programmes.

Last but not least, I would like to mention with regard to farming that if primary research is not reinforced, which also requires time and cost, we cannot talk about improvement in the agricultural sector.

# The emotional side of Slow Travel: Project "the Route of DOP Umbrian Extra Virgin Olive Oil"

#### Paolo Morbidoni

Project Manager of "the Route of DOP Extra Virgin Olive Oil in Umbria"

**ABSTRACT:** The project "The Route of DOP Umbrian Extra Virgin Olive Oil" was founded in 2004 and was one of the first ventures in Italy to experiment with the various forms of local marketing, always with a focus on enhancing extra virgin olive oil and its place of production.

During the last few years, through an overall organisation, forms of action have been developed throughout the region to represent all parts of the production and tourism chain, with the presence of a rich public-private sector, and the promotion-driven use of new media.

"The Olive Oil Route" has adopted since the beginning of its activity a very specific philosophy regarding the development of the tourist product, its strengthening. One of the most important features of a small region, such as Umbria (which is the fourth destination of gastronomic tourism in Italy after Tuscany, Piedmont and Veneto) is the concept of "slowness" as a value, of "recovered time" as an opportunity and an authentic tool of knowledge for the region.

We will analyse the strengths and weaknesses of the network, the operations and basic tools of the "The Olive Oil Route". Thanks to a survey conducted in partnership with the University of Perugia, we will demonstrate the important elements that determine the profile and motivation of the "traveler" who chooses to come to Umbria at a "Crusher Open", one of the most important events for olive tourism in Italy.

**Key words:** Umbria, gastronomic and olive tourism, the event "Open Olive Oil", the "Olive Roads".

A common view in Italy, a country rich in cultural heritage, natural beauty and unique culinary products, is that you just sit on the bank of the river and wait for the average tourist to pass. On the contrary, reality

is poles apart. Morbidoni, having first passed from the position of mayor and then as a professional of our field, explains the remarkable steps taken in tourism. Creating "the Olive Oil Route" in Umbria, he has worked with all institutions (government, universities, businesses, individuals) because ultimately the marketing of an area cannot be achieved by units. Together they analysed the subject of tourism and olive oil and ended up to the event "Open Oil Mills", a unique event nationalwise that made Umbria the fourth culinary destination in Italy!

In his speech, he mentioned among others about the "Open Oil Mills" event:

In Umbria right now, there are a lot of tourists. We carried out a survey of 250 questionnaires for tourists who participated in the event in order to look into each person's profile and the reasons that made them attend. The results were terribly interesting. 92% of our tourists were Italians, 28.5% were Umbrians, and it was clear how difficult it was to invite foreigners to our prefecture. The Umbrians responded to a large extent to our call. 47% of the visitors were graduates, so we directed at a well-educated tourist. 43% of the visitors spent at least one night in our region while 53% participated for the first time but 10% were people who returned to Umbria 4-5 times. All these visitors choose the olive oil mill to experience a deep knowledge of the place. Only 29% believe that the olive oil mill is just part of the production process. I believe that, especially in remote places, the ability to offer such, widespread, environmentally friendly, authentic ways of tourism is very crucial.

The bookmaking is simple and complex at the same time. Every single part of the system must do its job well, from the private producer, to the public service which must create a properly adapted administrative and legislative framework, councils, protection, enterprises, trade unions. They all have to work together. It sounds banal, but it is not. Those who do everything and on their own often cause damage. In other words, our job actually is not to sell olive oil but to apply and evaluate a tourist product by keeping together the product and services of the place, in order to enjoy everything and work in our place, to offer, in turn, the visitor high standard services. And this is what makes the difference. You

get an authentic feedback, you review it and new arrivals emerge. What are our strong points at the very end? We have a steady reality; not the idea that searches for the sources, but the sources that support the ideas. We have knowledge of the area. When we organise events and companies come from abroad, we look for those that are tailored to the reality of our place. We combine the public and private sector. We keep institutions and companies under the same umbrella. We all have, thus, common interests. We have a mature know-how. Flexibility and ease in our actions. We help peole act at the highest professional speed, we represent Umbria locally having Umbria as a common brand, and not as individual units. We have a common goal. In order to make understand how we do it, the Regional Institute for Economic Planning of a region near us, like Tuscany, predicts a vertical increase in tourism and our economy, from 6% now, to 24% in 2030, which will be a major pillar in our progress and economy from tourism. This issue certainly concerns all areas. Umbria is the 4<sup>th</sup> destination for gastronomic tourism in Italy after Tuscany, Piedmont and Veneto, with a turnover of between € 3 million and € 5 million euros according to the Tourism Observatory - Services 2010. We want to give a true perspective in all the remote areas that today suffer as a result of the economic forces of the last 30-40 years that eventually evacuated our fields and made it hard for those who stayed back. We want to offer off-season tourist packages. We have the opportunity to participate in tourism-related exhibitions. We organise events such as "Open Oil Mills" and exploit them. We have set up a front office that manages all communication issues and we, mainly, have created a back office that operates all year round with a permanent Press and Communication Office and proper social media management. Communication is the most important thing. We have an incredible intangible heritage. This means over 17,000 e-mail addresses of visitors, journalists, users, contacts from exhibitions ... We have a site that has at least 100 views per day and has reached even the 600 views per day. We have 50,000 views at the events, 16,000 likes on the Facebook page of the "Olive Oil Route". All this is an indication that "the Olive Oil Route" is always high on search engines.

I would like to finish with a thought that will give value to our volunteer work, which is accomplished with great passion. It's a great job not only to keep the nice thing present there, but also to turn it into a smart vehicle for our local economy; to pass through these factors and create value in tourism. These institutions are rather aware and we should be able to intervene in the negative change of a region, aiming to, as I often say, pass a better world on to our children without suffering from depression, the common illness of our time.

# Olive oil and promotion of tourist destinations: Perspectives and development of personal experiences

#### **Pantazis Pastras**

## Research Director at "Toposophy"

ABSTRACT: Gastronomy is emerging as a key attraction for visitors. Messinia, with a very strong cultural and gastronomic tradition, can make a significant contribution to the formation of experiential experiences and increase the region's tourism. Once a destination is visited, and bearing in mind the bio-environment and beautiful beaches, the tourist can also discover a new aspect, such as the very strong tradition of olive oil in the region. So, if he finds out while he is at the destination, he can of course experience it, but when he's gone, he will have something with him that he will be able to share with his friends, relatives and the whole network with which he is involved in his everyday life, through various channels provided by digital technology.

**Key words:** Bio-environment, gastronomy, olive oil, experiential experiences, tasting.

Tourism and gastronomy develop in parallel; and we say this, considering, first of all, that the global tourism has been in constant growth for several years. Since 2010, there has been a steady increase in tourist arrivals around the world.

Greece is the centre in international developments because it managed to overcome the negative pressures of the period 2011-2012, when negative publicity around the world created some misleading impression of our country as a tourist destination. The positive advertisement that started in 2013 and continues to this day has brought Greece to the top 10 countries worldwide with the largest increase in international arrivals during the period 2010-2017. This is very important when considering the dualism that characterises the incoming tourism in Greece. This means that around 85-90% of our country's tourism industry is currently concentrated in 5 regions; we are talking mainly about Crete, South Aegean, Central Macedonia, Attica and the Ionian Islands. Consequently, in a case like Messinia, with a very strong cultural and culinary tradition, it is of great significance to see whether it is possible to bring more tourists to a destination that is somehow emerging, this challenge regards the whole country apparently,

so that to smooth the pressures, which also regard our country's main competitors, because to a greater or lesser extent, similar phenomena exist in countries such as Spain and Croatia. On the other hand, gastronomic pleasure stimulates travellers' interest more than ever before. Nine out of ten tourists in Spain were influenced by gastronomy in 2017, as an attraction to travellers. A phenomenon that has to do with travellers from both traditional and emerging markets, because in a globalised environment and while our country has relied on and still relies on traditional markets such as the United Kingdom, France, Germany and the United States, now, gastronomy is arising as a major attraction for visitors from emerging markets, either from Asia, Eastern Europe or South America.

This factor is related to younger generations of travellers, because for at least 3 out of 10 travellers aged 16 to 34 the prospect of gastronomic pleasures is a determining factor in deciding upon the destination of their holiday. This conclusion is based on a survey conducted by Global Data Analysis in the first six months of 2018 and the sample was significantly from countries in Western Europe and America.

In addition, younger generations of tourists spend a noteworthy part of their budget on gastronomic pleasures. According to a study published at the beginning of 2018 by the international Student and Youth Travel Association, about 37% of the disposable income of travellers aged 16 to 34 is spent in gastronomic pleasures and experiences.

In the case of Europe, however, there is also the challenge in establishing a competitive relationship between quality and price. That is because, in relation to the emerging destinations of other regions, European destinations are laying behind other destinations, mainly in aspects such as the quality-price ratio, the hospitality provided by staff in food service establishments and the variety in gastronomic choices.

This finding is based on a research published by HOTREC, the European umbrella Association of the hospitality industry, and its findings have already begun to be disseminated to all the members of the organisation with a view to forming a common strategy both at European level and on the basis of needs in each country.

But how can we consider tourism and gastronomy? And how can we see in which way the latter contributes to the creation of personal experiences?

We must have in mind that experience is considered to be the most valuable possession because now, as it is more important to have time than money, perhaps the same important is to have experiences rather than products available, so that you can have strong memories. And the most important thing here is that destinations are now highlighted at every single moment of the tourist experience because the journey does not begin when you arrive at a destination and does not end when you leave the destination. If someone is particularly interested in the area of Pylos, he or she may want to visit Sfaktiria, the only place where the Spartans were defeated twice, both by the Messenians and the Athenians. From that point on, however, once you have visited the destination, and considering the awesome bioenvironment and the beautiful beaches, you can also discover a new aspect, such as the very strong tradition of olive oil in the area. So, if you discover it when you are at the destination, you can naturally experience it, but when you are gone, you will get something with you, which you will be able to share with friends, relatives and the whole network you communicate with in your everyday life, through various channels provided by digital technology.

Gastronomy defines a multitude of tourist services. This is a finding coming from a research conducted by the Spanish Wine Federation, where there is a developed network of wine routes. Travellers with a special interest in gastronomy have been keen on local markets, wineries and olive oil mills, events ... Gastronomy is now an horizontal element of every tourist experience and the possibilities to highlight it are unlimited.

In order to make gastronomy an unforgettable experience, it is necessary to find the link of products, services and, of course, to create a story that will unite them and make them attractive. Otherwise, they remain separate aspects of a destination.

This is an adaptation that we have made to a study of the Northern Ireland Tourist Body, where they try from nothing to create unforgettable cultural experiences. They say that you may have an asset, such as the fruit of the olive or grape, you may have the related product, such as olive oil or wine, you can have

services like olive groves or wineries tours, but in order to create an experience that will include the best possible experience, a series of links, such as wine tastings and local events must be created, so that the olive grower or the winemaker can tell what connects him with the tradition of so many years.

Especially for olive oil and the promotion of tourist destinations, in relation to the development of thematic products and experiences, there are the packages of olive tourism activities. In Spain several packages have been developed and we refer to a typical one-hour package including olive grove tour, olive oil mill tour, tasting, etc. Besides, because still, in a country like Greece, there is no maturity in this area, the best possible connection between products and services is needed. We have to find in the region, let's say, of Messenia, how olive and olive oil are linked to all those elements that have made Messinia an attractive destination, such as tradition, history, monuments, some services offered for luxury tourism and many more different things.

Undoubtedly, the development of partnerships at local and regional level seems to be a crucial factor. For example, in the region of Tuscany in Italy, one of the most developed regions in the gastronomy and tourism interconnection, it is clear that the routes of wine are assisted by the routes of olive and olive oil.

As for sales growth, those who have managed to create conditions in order to attract tourists interested in olive oil, are likely to be potential consumers for related products.

A quick research shows that it is to be taken for granted that the most developed olive oil mills in Italy and Spain have a website to sell their relative products. Other than this, the promotion is carried out for all parties involved in olive tourism in various digital and non-digital channels.

Some results and perpsectives:

- 1. Making olive oil a component of the tourist experience requires strategic planning and a framework of partnerships.
- 2. Product development (personal experiences, thematic events, tourist interest marking, etc.) is a necessary condition for an ambitious marketing plan.

3. Promotion actions (destination identity, quality content, online and travel trade promotion, etc.) require a medium to long-term implementation.

"Olive tourism as a tool for the development of olive growing areas: Successful experiences from Spain"

José Maria Penco Venezuela

Technical Director of the Spanish Association of Municipalities of the Olive Tree

**ABSTRACT:** In 2003, the Spanish Association of Municipalities of the Olive Tree (AEMO) developed a European programme called Oleotourism, together with Diputación de Jaén and seven other partners from France, Portugal, Greece, Morocco, Tunisia, Serbia and Croatia. It was the INTERREG III-SUDOE initiative for cooperation between the EU countries and their neighbours.

It was three years of work, we shared our views, identified the opportunities of tourism in relation to olive and olive oil in other countries, and we designed a Mediterranean route of olive tourism. We learned a lot, but, above all, we discovered the future of tourism linked to olive and olive oil along with the value that this concept could bring in this sector.

Tourism combined with gastronomy is a concept quite common in modern society. We can confirm that wine sector has a leading role in providing resources and tourist offers that can by themselves justify a trip, but what is the dynamics of the olive sector in this?

We are lucky that the olive fruit gives us the best fat, as well as natural fruit juice, which, as it is, has different organoleptic properties depending on the variety, on the ground where the trees grow and the weather conditions. The universe of extra virgin olive oil is infinite and it is a world that needs to be explored and the consumer seems to be willing to learn it. The tourist wants to try the different oils, wants to learn to try them, wants dishes to be combined with some olive juices.

We, therefore, come to the conclusion that olive farming and olive oil extraction is something tourists want to learn. They are eager to visit an

area to experience olive oil and olives and enjoy the gastronomy of the place.

We enhance the tourist resources associated with the olive grove, organise routes and paths, pass them on to the growers and, in this way, we will sell our olive oil better.

**Keywords:** Bio-environment, gastronomy, olive oil, experiential experiences, tasting.

We are always proud when we come to Greece because it is the cradle of the olive tree and the European olive grove and, therefore, we feel that we are in the birthplace of the olive grove and we want not only to feel it but also to impart this through our speeches.

The olive tree comes from the Middle East. The Spanish, Italian and French variety genetically are "daughters" of the Greek olive.

The Spanish Association of Municipalities of the Olive Tree consists of 50 members, municipalities, communities, prefectures of regions, where the olive is cultivated.

Our association was founded in 1996. We started with 40 members and today we have 151. Our association is also currently chairing the network of olive producing cities in the Mediterranean, where 13 Mediterranean coastal countries are involved. The aim of the association is to promote the olive culture of the Mediterranean countries and according to our statutes, to promote the culture and consumption of olive oil and olive all over the world. We believe that the future of the olive is growing a product of high quality. The case of olive tourism is also very important.

Within the scope of our work is to look for ways to make olive farming efficient and we do this through European programmes and in cooperation with other Mediterranean institutions on olive cultivation, which is our banner.

Especially on olive tourism we started working in our association in 2002, when this word was first heard in Spain, as until then we were talking only about wine tourism. We are seven members, including Greece, and we developed the first olive farming programme in Europe for 4 years. Its goal is to create an olive tree route from Greece to Spain through all the Mediterranean countries. For this reason, the starting point is the olive tree on the Acropolis, in Athens. We all know the legend how this olive tree appeared when Athena put her spear in the ground. Starting from there, we reached the end of the route in southern Andalusia.

In 2006, conferences took place in Cordova with the participation of several Mediterranean countries because we consider olive tourism important in Spain.

The olive sector has a market of 3.1 million tonnes produced in 48 countries of the world, on an area of 11.1 million hectares, with sales revenue between 6.5 and 11.5 millions, with a social mass of employees and directly dependent on this sector 30 million people, i.e. 7 million families. This is what our sector represents in global economy.

And some more data: In the top 10 of the olive growing areas in hectares in different countries, Greece comes 4<sup>th</sup>. What is more, 95% of the cultivated area of the olive groves is in the Mediterranean. Spain is the largest producer in tonnes, followed by Tunisia, Italy, Greece, Morocco, Turkey, Syria, Portugal, Argentina, etc. The Spanish are often responsible for the olive oil prices, not only for us but also for all Mediterranean countries.

With regard to the cost of olive oil production per kilo in each country, according to the International Olive Council, in Spain the average, among all cultivation systems, is 2.75 euros per kilo; in Greece, 2.45 euros per kilo, while the cost increases considerably in Italy, Tunisia, Morocco.

The average selling price of bulk olive oil last year was 2.20 euros per kilo. If we compare revenue and costs, we can see that in the last years, if we sell olive oil in bulk, we have no profits. In fact we lose and farming is not profitable.

How can we reverse this situation though?

# The 4 main arguments are:

- 1. The rise in consumption in China, India, the USA, South America is solely the result of the therapeutic properties of the product. If you ask a consumer on the international market, he or she will tell you that he or she does so because it is healthier.
- 2. Gastronomy. Olive oil gives aroma and taste to our dishes.
- 3. Culture. For sure in Greece, the mother of all the Mediterranean cultures, it is of great importance. Here is where the ideas were born and developed through Rome to evolve into modern thinking. This plays an important role for the Anglo-Saxons who buy the product because it has a story of thousands of years.
- 4. Lastly, the relationship between olive farming and environment. It is not an annual plant, but a tree. The countries of northern Europe know the value of olive and its significance in the environment and that is why they mainly buy olive oil.

Therefore, the values around olive oil that need to be enhanced are culture, gastronomy, environment and health.

I will mention, in a nutshell, a programme of olive cultivation developed in Spain that has a two-year life. It is a model programme on how a public institution, the Prefecture of Jaén, has connected mills, museums ... to integrate them into a single platform to be promoted. It is currently evolving and is called "The Olive tourim in Jaén".

Jaén produces 500,000 tonnes, i.e. 25% of world olive oil production just from one province. Thus, in addition to the quality and the promotion of olive oil, Jaén has also invested in olive oil tourism through this programme.

Concerning olive tourism, to the values we mentioned above for cultivation (health, gastronomy, culture, environment) the olive oil mill should also be added. All this route is recorded on an online platform, where all these points of oil tourism are presented and the visitor can "click" to select the route that interests him.

In the first year, 20 olive oil mills were introduced to this route, the features of which are presented in the platform. While entering, there is a sign of participation for each mill in the platform. Two types of olive oil mills can be included in olive tourism: the ones that can be visited and the touristic ones. In the first case, people visit, become familiar with the extraction process and enjoy the experience of tasting. In the second case, however, comparing to the previous, tourism activity is an activity of an enterprise; much more intense, as part of the mill's revenue comes from tourism. This is done e.g. with the sale of olive oil in a boutique of olive oil that exists in the area, for example, or with the stay of the visitors in accommodations within the premises.

There are also 23 restaurants in this platform. Obviously, in order for a restauran to participate, the use of olive oil in all dishes as main ingredient is a prerequisite.

As far as culture is concerned, we have olive museums, which work with old machines, on the traditional collecting way etc, as well as modern museums that through technology show the whole process of harvesting and producing olive oil.

As for health, there are spas in hotels, where olive oil is used in massages and oil treatments, and shops that sell cosmetics based on olive oil.

Last but not least, regarding the environment, we have 12 participants with monumental olive trees, which are part of the route, in which the olive grove, of course, is an important part of, in an amazing landscape.

In this one-year programme, there are 81 different factors in one province, Jaén, that we saw one by one. There is also a great promotion of this project in the US, France, London. It is, of course, presented in Spain's main tourism fair.

It proved to be successful, as in the first year we had 200,000 visits, a particularly important result.

And obviously we promote it in tourism fairs all around the world.

"Olive oil tourism": a tool for tourism development, the case of Greece"

**Konstantinos Andrianopoulos** 

Co-founder of the School of Tourism in Kalamata

ABSTRACT: With olive tourism, we try to improve seasonality, create and train a new generation of tourists and active executives in the area. Diet and tasting are a main part of a culture, which, besides the basic model of tourism development, enriches the tourist product. By identifying the malaises of the Greek system, we try to create, produce and do things passionately and voluntarily, exactly like the School of Tourism in Kalamata. We need to "construct" activities; to make the experience of the demanding and well-informed tourist be personal, such as to collect olives, to get the taste and the idea, to participate in a tasting. Passion, inspiration and hard work are essentially needed.

**Key words:** Olive oil tourism, tasting, the School of Tourism in Kalamata, visiting olive press mills, monumental olive trees

Olive oil tourism: it regards a relatively new term, although Italy and Spain have been significantly more familiar with.

Today we will not talk about the ordinary "sun-sea" tourism model. This exists and is very influential. 8 out of 10 visitors of our country come just for it; and, obviously, we do not want to lose these 8; the opposite, we want to make their number increase. For 7.5 out of 10, though, gastronomy is regarded an equally high priority. It is among the three factors that make them choose our country for tourism, what studies have also shown for Spain and Italy, which actually means that we address the same public. Basically, we are in the same, Mediterranean neighbourhood.

So, we have a traditional model and visitors will continue to come for it with a usual seasonality that characterises the Greek tourism product, to

a much larger extent than in other regions, as Greece is a champion, a poor champion.

We need to intervene as discreetly as possible, without touching the existing clientele, creating a new one, improving the part of seasonality and creating and training a new generation of tourists and active executives in the area.

Needless to say, it is important to communicate in the same language. We see the necessity of this factor when we talk about famous and important Greek singers, whose songs touch our heart but make no sense for an English or Dutch tourist.

We have to speak the same language, whether we are the olive and olive oil producers or tourism industry executives, or whoever else contributes to this tourism product chain. A lot of effort is needed.

Diet and tasting are the indefeasible part of a culture. Italy and Spain have turned to another model of tourism development that will complement the basic tourism development model, thus enriching the tourism product, effectively creating a completely different generation of tourists.

We see them. In Messinia, besides the typical tourist lying on the sunbed and enjoying the sun and the sea, we see people cycling, visiting wineries, visiting mills, fewer, of course, but still. We have to realise what we do not do well, because there is certainly something that we do not do well, since there are not more. Many efforts have been made, but most of them are incomplete. I am delighted to see people create, standardise, produce new and tourism products that are both stylish and inspiring and to the right direction. Somewhere, though, we lose the meaning. We do not have to rediscover the wheel. We do not have to copy. We can simply follow good practices; to find out what the malaises of the Greek system are, in an environment that is really difficult, which has always been difficult, despite the moments of prosperity that we have experienced, and we must continue to create, produce and do things with passion. And it all starts with volunteering, like the School of

Tourism in Kalamata. Volunteering was the base; it did not get the permission or blessing of anyone.

A recent study of the Greek Tourism Confederation (SETE) on the Greek tourism product found that culinary tourism is a very powerful part, among the 3 most important things that urge the average tourist to choose Greece as a destination. We can see that the production sites open for visit, the olive oil mills in our case, as well as the food and beverage stores are on the agenda with the issues to be addressed. Why is it difficult, though, to recommend to a tourist an olive oil mill here in Messinia that is fully accessible and well organised? Those that exist are to be counted on the fingers of one hand, while there are of course other weaknesses because of other factors.

Our visitor comes necessarily into contact with the gastronomy of the place. It cannot happen differently, he or she has to eat, to survive. The food is dominant. He may not go to a museum or swimming if the weather is rainy, but he or she will definitely taste the experience of eating, whether pleasantly or unpleasantly or neutrally. When I go to the place where a product I tasted is made, for sure a Dutch, a Belgian tourist has definitely tasted a Greek salad in a restaurant in Brussels, I want to go through the ultimate experience, the best Greek salad. But I am not entirely sure if they have this experience here. I am not entirely sure if the tourist gains this experience in 99% of the businesses. And we surely have good products. It is not just the olive oil or the olive but a number of others. We are a blessed place, like Italy and Spain, I would say.

Looking at the profile of our tourists through a survey conducted by one of the largest tour operators, TUI, we can see that food and attractions are very high in their experience.

We also should not forget that our visitors now have already experienced the image. They travel, read... nowadays; the visitor has already had experience and very high expectations.

Our customers are also really conversant with all this. They expect to experience the ultimate, they do not come unprepared. What about the

flavour though? They will always have it with them. If you try to go back in the past, you will always remember that ouzo you drank in Mytilene, that feta cheese you tasted in Kalavrita, the wine ... We have to support all these; it is a very potent point. Because local products and production are clearly in the DNA of the tourism product.

Let's stay more in Greece. What do we do?

Let's take, for example, the olive oil, which I realised that I knew nothing about until I attended a seminar of the institution that hosted us years ago and what I learned was a surprise to me and the other participants.

What is happening here; Not many things, just few with the common excuse that it is a difficult period for investment. The customers themselves come and ask us "Where could we go today?" And we often have no answer to give.

In Crete, some first steps have been made. What do we need to start? A strong institutional framework on olive oil tourism? Not really. It's wrong. We do not need any institutional framework. Since when has the organised State pioneered and recorded the needs? It never did that. The State follows the pioneers, those who have a vision. The State thinks with a very long delay. We do not need any institutional framework. I think they did not even need it in Spain and Italy. First we start. First we form the bases, develop partnerships within the whole atmosphere of excitement, with every single personal experience we can find the necessary keys, and then comes the State to protect what has been planned and already been implemented. The State cannot create a development upon request. It helps if it wants and when it wants. Sometimes it helps, others not, but there are times that it can also do harm.

We need to make a story. The Italians and the Spanish made their own story. There may be similarities, but we have to make our own and tell it nicely and decorate it with nice pictures. Greek Mythology has stories. We need the way to narrate it. And we have nice stories to tell about the olive and olive oil. We support it ... They did so in Crete. They recorded

50 monumental olive trees, out of which 14 were distinguished, and on them they set the paths.

Somewhere centrally in Kalamata, there is the "mother olive tree". How many have been there? Very few really. Can we go there right now? No. Is there someone there to welcome us? No. Is there a tourism product nearby? No. Is there an institutional framework needed for this? No. It is not State's business, there are other people to inspire and with influence on this.

In order to complete our story, we need, thus, monumental olive trees, a museum, olive oil mills, a stone, a mill, accessibility. Accessibility is not the number one though; guests of Costa Navarino do not complain about the road network.

We need to "construct" activities, to make the experience personal, through olive harvesting, for example, or through tasting, and getting thus the idea of it.

It is not something that we need to discover. We do not have to break the mould, we are taking the highroad, but we have to do it in an organised way; to have a brochure with the opening hours and all the necessary information and, of course, to have it available on our hands to inform the average tourist about the possibilities offered.

The point is undoubtedly to be able to sell our product at prices that bring us a profit and not loss because we sell bulk. In the standardisation process there have been made very big steps, but they are not enough. To bring people and sell, a story is needed. Just a black bottle with fine letters is not enough. Everyone can create a black bottle with fine letters now.

Brochures have to be prepared; an organised promotion needs to be planned. In Umbria, we have seen that they have invested in it. Above all, however, synergies are essential in promoting, along with experts to help us on our own story, to tell it better, as Germans, Italians, Russians like it... Everyone may want to hear a story in a different way. For example, I recently found out that in a company, other packages are

used in the Russian market, others in the Scandinavian and others in the US.

We need, therefore, specialists to tell us this story based on their knowledge, in order to make people coming to us acquainted with it.

"We must free ourselves of the hope that the sea will ever rest. We must learn to sail in high winds", Aristotle Onassis said.

The chances to return in 2004 are scarce; I do not bet a single euro. Times have changed and we need to change too. I think this should be the basic message for all of us, for the local communities. It takes a few people to start and then it is them that will entice the rest in all this.

To the question, then, whether it is possible or not (put by Peter Economides and turned into the main "motto" of the School of Tourism when started), the answer is, of course it is possible. Passion, inspiration, hard work, cooperation is what is needed. Peter Economides has also said that Greece is one of the world's largest brand names, which has not been commercially exploited.

We have, thus, the story, the beginning of the story from the Acropolis, we have the olive tree and the people...

# International Olive Oil Trade of Mediterranean Countries and challenges for Greek Businesses

### **Dr. Panagiotis Kotsios**

Economist – Researcher at the Strategic Project Management Office of the American Farm School 0030 6979158015, pkotsi@afs.edu.gr

**Key words:** Mediterranean diet, quality, quantity and consumption of olive oil, global exports.

The Mediterranean Sea is surrounded by 22 countries with a total population of 506,682,798 inhabitants. According to the Food and Agriculture Organisation of the United Nations, this area produces the largest quantity of olive oil in the world. The average annual production in tonnes for the period 1994-2013 was 1,059,194 in Spain, 557,574 in Italy, 344,615 in Greece, 159,990 in Tunisia, 140,466 in Syria and 128,168 in Turkey. Based on the data provided by the International Olive Council for 2012, the largest consumption of olive oil per person was recorded in Greece with 17.9 kg per year, in Spain with 12.6 kg and in Italy with 10.9 kg.

As far as the exports are concerned, the Mediterranean countries account for 95% of global exports and the total value of exports increases every year, reaching €7.18 billion in 2017 from €5.03 billion in 2013. The global increase in demand for olive oil is mainly due to an increase in the demand for healthy food and good fats along with the direct linking of olive oil to the Mediterranean diet and its benefits. Spain is the largest exporter of olive oil, followed by Italy, Portugal, Greece, Tunisia and Turkey. The increasing demand has led to a subsequent increase in the average price of olive oil worldwide, i.e. from €2.98 per kilo in 2013 to €4.09 per kilo in 2017.

Regarding the olive oil imports of the Mediterranean countries, they account for less than 50% of world imports. Italy is the largest importer in the Mediterranean Basin and in the world. Significant imports take also place in France, Portugal and Spain. The trade balance (difference between imports and exports) of the Mediterranean countries varies

significantly. Countries like Spain, Portugal, Greece and Tunisia have a trade surplus, while Italy and France have significant trade deficits.

These data give rise to some major challenges for Greek businesses (producers-processors-suppliers) engaged with olive oil. They should concentrate on the best markets around the world in terms of quantity and price while entering with quality diversified products, various types of packaging and an intense promotion targeting thus both the consumer and the supplier. Necessary conditions in this process are to ensure a sizeable production that can meet the demand of large markets and to conduct research in targeted markets to identify and effectively meet customer needs.

"Environmental management of olive groves: an opportunity for the natural environment, the mankind and the economy"

**Giorgos Kokkinos** 

President of Producers' Group "Nileas"

ABSTRACT: "Nileas", the Association of Certified Agricultural Products of the Municipality of Nestor in Messinia, implemented the environmental management system and realised its great importance. The production of agricultural products with care for the environment is the goal because the non-rational use of inputs in agriculture affects the environment and the economy. When realising the need for a better agro-environment we see the need for a collective response to the problem beyond stereotypes and feelings. Incorporating environmental concerns into farming activities and promoting them can bring an economic response from consumers' side. A sustainable olive cultivation is the future for all of us.

**Key words:** Producer group "Nileas", environmental management in agriculture, sustainability, organic farming.

"Nileas" was founded in the beginning of 2002 in the form of a civil non-profit company, by 55 olive growers from Hora and the wider region. Our initial ambition was to implement an integrated management system. In the period 2002-2011 we did very well in implementing environmental management. When our consultant advised us to apply environmental management in the olive groves in 2002, we asked what the olive oil and olive have to do with this. Today, after all, I am in favour of environmental management since it is related to everything.

Gastronomy, environment, culture and history are a "batch" that needs to be combined very well to go further.

As I have seen the whole thing, it is a coin with two sides: On the one hand there is the environment and on the other hand there is the economy, our pocket. Every mistake we make affects our pocket. Normally when it comes to the environment, it is something romantic, and we ignore the economy. This fertiliser causes damage to the environment and our pocket. If we insisted on this dimension, because the pocket hurts all, whereas fewer people have such environmental sensitivity, we might have had more and better results.

#### What is Environmental Management in Agriculture?

It regards the production of agricultural products with care for the environment.

We have to admit that the field is not a part of one's own property but a part of the environment that affects it and is affected by it, that is, there is a relationship of interaction. We are used to saying,"It is my field and I can do what I want". But it is not exactly like this, it is part of the environment. Any inexpedient action in the field has an impact on the environment; any unnecessary spraying affects the environment. In the olive grove there are already loads of organisms, useful and not. They are usually useful. Whatever we do, even with a walk in the field, makes them go away. It is not that we shouldn't go but that we should respect the environment considering that there is a serious relationship of interaction.

#### THE FARMER

The modern farmer-grower **has to** produce foods taking into consideration the following:

- Consumers' needs and demands, because this is for his benefit.
  The demands are constantly increasing in terms of quality.
- > That he is the main environmental manager

#### Goods and services the environment offers

Aesthetics

- Animal shelter food chain integrity
- Water economy and quality
- > Food
- Ecological balance, indicator of healthy ecosystem

# Why should we care for the environment?

- The non-rational use of inputs in agriculture has an impact on the environment and the economy. Inputs are what we buy, fertilisers and pesticides, and how they have an impact. In an area like ours with hilly terrain, large slopes, fields by streams, any misguided action, e.g. fertilising in a day that rain is expected soon has an impact on the environment, as the fertiliser will end up in the river, the organisms that live there and the sea.
- ➤ Therefore, wrong cultivation practices have serious implications for the environment, products, production costs and sustainability. Why for sustainability? For example, rototillers, which are used as cultivation practice for weed destruction, when initially used for environmental management, they were applied to 45% of the area. Today they are used for only 5%, because in the case of sloping soil, the first rain washes the soil away. So, when the superficial fertile soil is gone, it leads to desertification, which means that it is not fertile anymore, sustainability is lost, there is economic loss and there may be abandonment, since, if we pass on non-fertile soils to the next generations, they will not have something to live from.

Talking about cultivation practices, it is worth mentioning that regarding the burning of the branches in the olive grove, by participating in the revival of olive oil life, "Nileas" came to the conclusion that for every kilo of olive oil that gets bottled in Austria, it is stored on the ground, not released, 335 grams of carbon dioxide. This means that we can take the Mediterranean olive grove to another level, which means, in turn, that if we stopped burning the branches, the benefit would be two kilos. We

have tried it with fragmentation of branches to produce compost. We can seriously take this method into consideration. All this is not easy, but it is necessary.

When it comes to quality, we need to see the customers we target, the product we have and the way to meet their demands. We choose customers who want, besides a very good product, gastronomy, history, culture and care for the environment.

➤ The implementation of environmentally friendly practices improves our image and contributes to the development of the agritourist product

#### From care for the environment to environmental management

When realising the need for a better agro-environment we see the need for a collective response to the problem beyond stereotypes and feelings.

We should not forget that the bad use of chemistry and machines has led to the problem, not machines and chemistry themselves. If we did rational management, the problems would be of minor importance with a much lower cost than the size of the penalty we are paying today.

# Basic goals

- Investigation of the environmental impact agricultural activity. We found out that the use of rototillers was a problem. In fact, the use of herbicides was found more environmentally friendly than rototillers. Then, of course, we started using mowers that was an even better practice.
- Development of improvement programmes.

# More specifically

The environmental aspects associated with olive cultivation are investigated, i.e. all activities, cultivation practices etc. that interact with the environment.

#### **Necessary conditions**

- Adoption and compliance of documented procedures. Environmental management is science.
- Necessary compliance with a protocol or standard providing recognised and credible certification.

However, through this 17-year experience that we gained, from 2002 to the present, the certifications have actually destroyed us, since we were pursuing more the certification rather than the substance, the content, thinking that we would sell our olive oil more expensive with the document. This is where the integrated management system collapsed, although it could offer a lot to Greek producers, through continuous training and adaptation to the new and ever changing data. If, as we have already pointed out, we do not adapt to the requirements for hydrocarbons, we will not be able to sell and taking risk our olive oil to be classified as non-merchantable. And this is not the only requirement. I am afraid the demands coming from the market will keep growing and we will always have to adapt.

# **Principles matter most**

- A management system is designed for the area applied.
- ➤ It concerns and affects all those who in one way or another are involved.
- ➤ It improves and evolves continuously. A dynamic environmental management system must have crisis management system. When destruction happens, it has to respond, to take action.

#### Olive cultivation and environment

The cultivation of olive is the mildest towards the environment when compared to other agricultural activities because:

- ➤ The olive grove emerged as a natural evolution without requiring human intervention.
- It requires little cultivation care and input.

The Greek olive grove is more an olive tree forest and less a modern crop.

#### The effects of olive cultivation on the environment

- Use of chemicals (pesticides fertilisers)
- Use of machinery
- Use of water
- > Soil management
- Pruning management of removed branches

For all these there are management plans and scientific interventions are made to reduce the burden on the environment.

# How environmental management and organic farming are related

- Organic farming is an environmentally friendly cultivation practice governed by the EU regulation
- ➤ Environmental management is a dynamic system of production of conventional and organic agricultural products. All versions are based on an acceptable documentation system (e.g. ISO 14001 etc.)

#### Why caring for the environment is for my benefit

- As humans, producers and consumers we are part of the environment.
- > Environmental disturbance threatens our health and our future.
- ➤ The integration of environmental concerns into our cultivation activities and their promotion can bring an economic response from consumers' side. The interest can increase by having an environmental label and if demand increases, it can also bring value added. If it is connected with rural tourism, olive tourism and gastronomy, then we can have hopes as an area to gain value

- added in the future. It will not come as magic, though, with certificates, an impression that had been given for years.
- The most important is that, when I do not ignore the environment but I take it seriously, I reduce the production costs.

#### The benefit

- ➤ The environment and ecolabelling offer an opportunity for product diversification.
- ➤ It also offers an opportunity to the local olive oil packaging companies to develop. This is something that we miss. It is necessary to link the production to the processing unit.
- ➤ Traceability gives the opportunity to promote the place where the product of the people who produce it is made and their activities take place.
- ➤ The product is addressed to environmentally conscious consumers.

# **Bottled Organic Olive Oil**

Environmental management is the documented scientific approach of improving the environment. Care for the environment means: Health, quality of life and culture.

It is our duty to pass on our farms to the next generations more fertile. Because sustainable farming, sustainable olive cultivation and giving them an environment better than what we received is what is needed.

There is space for improvement because there is profit for all of us.