Συστήματα Διαχείρισης στη Γεωργία
Κόττου 48, Μεταμόρφωση 144 52,
Τηλ. 210 **28 30 859** Κιν. **6944 55 12 28**
Web: www.rodaxagro.com, Fax 210 **28 47 712**
e-mail: parabem@rodaxagro.gr

Εφαρμογή νέων καλλιεργητικών πρακτικών στην Ελαιοκομία με στόχο τον περιορισμό της Κλιματικής Αλλαγής και την προσαρμογή στις νέες κλιματικές συνθήκες

OLIVE CLIMA - LIFE11 ENV/GR/000942

www.oliveclima.eu

C7 Socio-economic analysis for oLIVE CLIMA including environmental evaluation.

2013 to 2017

RodaxAgro Ltd

Sept. 2017

Το oLIVE CLIMA χρηματοδοτείται σε ποσοστό 50 % από το πρόγραμμα LIFE+ της Ευρωπαϊκής Ένωσης

Summary

The project oLIVE CLIMA succeeded in its target to introduce farming practices that enhance carbon sequestration and permanent storage, as part of CO_2 is removed for more than 100 years from the atmosphere. This leads to olive products being the only food deserving a carbon credit, a benefit that may be commercially useful to producers for promotion of olive oil.

The practices introduced by oLIVE CLIMA proved to be economically more sustainable than their traditional counterparts, allowing for some hope for yields increase and reduction of production cost. In parallel, yield increase without additional inputs, lowers the footprint of the product with regard to several environmental impacts.

Some of the practices introduced, like wood shredding and composting, enhance the need for farmers to form coalitions on productive basis[1], taking up (part of) decision making, and to share the equipment cost. Especially as the cost to subcontract was found much higher than the cost for the same work carried out by farmer himself, i.e. without subcontracting.

Among the practices introduced, the most important, as well as accepted is pruning. It has become obvious to olive growers that oLIVE CLIMA pruning can smoothen the alternate bearing of olive trees, a situation that exhausts the trees in the “on” years, rendering them susceptible to adverse conditions in the “off” years, with detrimental effect on yields and cost.

Finally, it is documented from the results of the project, that sustainability of olive growing is possible, and the threat of abandoning can be deterred. A number of recommendations for further work, at the end of the present document, aims to the same objective.

[1] In Greece almost no cooperative is based on production processes, but mostly on common trading of the production.

Contents

Table of figures

Action C7: Socio – economic analysis for oLIVE CLIMA

1. Introduction

The objective of this analysis is to reveal the impact of the project on the prospective of sustainable olive growing, so that olive groves will continue protecting inclined land from soil erosion, whilst at the same time provide olive oil for the nutrition of farmers families, as well as for some addition to their income.

So far, the combination of several external factors like market price of olive oil, economic crisis and weather instability due to climate change, drive the olive growers to less and less investment in olive growing. This in turn leads to lower yields and increased cost of production, and at the end to semi-abandonment of the crop. Our data during the last decade show that to a large extent in Crete almost 50% of olive groves are not harvested each year, as trees are left to return to the natural biennial bearing[2]. This however has a detrimental effect on the sustainability of the crop, as it causes instability of income and even lower investments. In parallel, the few fruits that remain unharvested on trees, in the low-bearing-year, become a nursery for insect-pests like olive fly, which flourish, increasing their population stock, year after year. The project oLIVE-CLIMA introduced farming practices selected so as to have two-fold objective, i.e. A) to ensure enhanced carbon dioxide (CO_2) uptake from the atmosphere and its storage in soil as **S**oil **O**rganic **M**atter (SOM) increasing thus soil fertility. At the same time, B) to train olive growers to minimize biennial bearing, increase yields and decrease costs, mainly by improved waste management (e.g. instead of burning the pruned wood), by a smart approach for pruning and by minimizing tillage, up to zero tillage. The overall objective has been to use CO_2 as a tool for more economically viable olive crop.

One more potential benefit for the olive growers is that by implementing oLIVE-CLIMA practices they can reliably demonstrate in a quantitative way the improvements of the environmental performance by using Product Environmental Footprint (PEF) to promote their olive oil in the market.

2. Materials and Methods.

2.1 Sources of Information

The records which have been used for the socio-economic study are the following (see document 'C1-Primary data collection and recording & Quality control' for details).

1.1 EMS CLIMA

1.2 CLIMA RECORDS

1.3 CALCLIMA

[2] Alternate bearing of high and low yields, in "On" and "Off" years respectively.

2.2 Scope of the socio-economic analysis

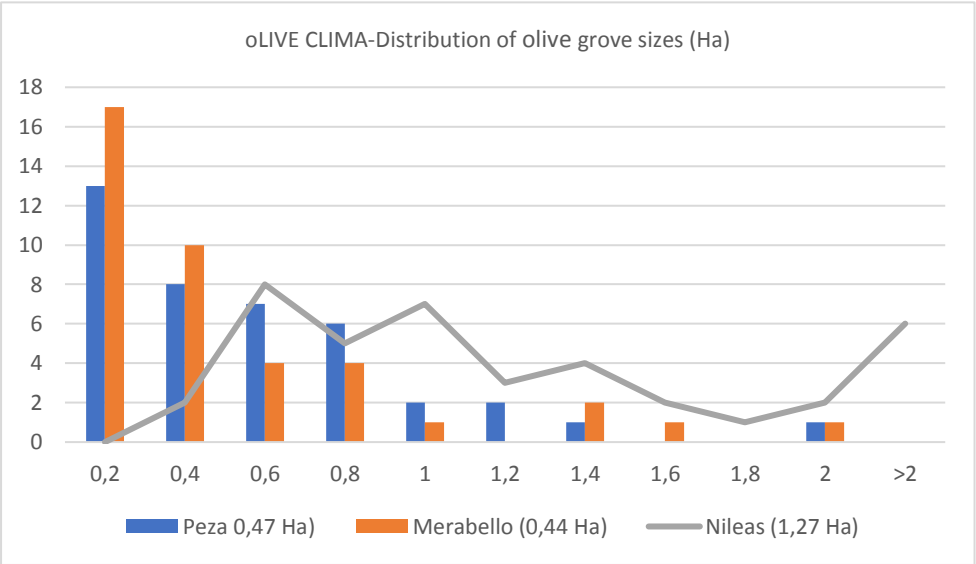
The project LIFE 11 ENV/GR/942 oLIVE CLIMA was developed on 120 olive groves, distributed in three areas of south Greece as follows:

- Farmers Organization 'Nileas'
- Union of cooperatives of Peza
- Union of cooperatives of Merabello

So, 40 olive groves were in SW Peloponnese (NILEAS group of farmers), 40 in NE Crete (Merabello group) and the last 40 in central north Crete (Peza group). Olive groves differ significantly in size (Has/olive grove) between Crete and NILEAS, as shown in the figure 1 below.

Note: This figure should not mislead with regard to farmer's property size. One family may be the owner of as many as c. 20 small sized olive groves, especially in Crete.

Figure 1 Size of olive groves in the 3 areas



The project provided for the following interventions, designed to increase the capture of CO_2 from the atmosphere and the storage of carbon in soil, deterring CO_2 from scaping, as much as possible. The interventions, as respective actions, were as follows:

Action B1: Soil enrichment with carbon, by returning to it organic matter, i.e. shredding wood and spreading on soil, composting, and spreading Olive Oil Mill Waste Water.

Action B2: Enhancement of photosynthesis by special pruning and by enrichment of soil cover by winter cover crops / green manure. Also, by introduction of zero tillage so as to prevent carbon losses from soil, as much as possible.

Of the 40 olive groves per area, the 20 were irrigated and the other 20 rainfed. The 40 olive groves were then split in two groups, one that received the projects interventions (20 olive groves) and one that served as untreated control. It should be mentioned that the split to 'treated' *vs* 'control', served only the demonstration element of the project, i.e. for the farmers to witness that the interventions did not have a negative effect.

2.3 Limitations of the socio-economic analysis

a. Comparisons between control and treated olive groves

The split to control and treated plots did not have the usual function of an experimental design, i.e. to be suitable for quantified comparison of results between treatments and controls. Such comparisons cannot be made, due to the following reasons:

- Soil texture, age of olive trees, planting density and several other critical parameters were not common between control and treated olive groves,
- Apart from the interventions, routine treatments like fertilization, plant protection, irrigation etc. were chosen freely by the farmers, resulting in quite variable pattern as it can be seen in the Parcel Performance Sheets (PPS) in Annex 2.
- Some interventions dictated by oLIVE CLIMA, were not identical for all of the 'treated' olive groves (see document C1.1 Data collected and recorded). For example, a farmer was free to select the type of organic matter to be added between shredded wood, or compost or oil-mill waste water. In addition, participating farmers were not prevented from implementing on their "control" olive groves some of the interventions they had liked seeing on their "treated" olive groves.

The above, not surprisingly, led to very high variability of inputs and results. The intrinsic spatial variability in crop agriculture in known to be very large, and temporal variation is added for perennial crops. Especially for olive trees, two more sources of variability are added, i.e. a) long term tradition of olive growing, a condition that has differentiated local farming practices established over thousands of years. For example, in NILEAS the practice for pruning in two times, winter and summer, while in Crete pruning takes place only in spring, and b) the inherent tendency of biennial bearing of olive trees.

Having carried out LIFE09 ENV/GR/000302 SAGE10 using 600 olive groves in the same areas, we had the rare opportunity to have abundant data on the statistics of variability. We could thus calculate that if we wanted to be able to carry out credible comparisons, we would need several hundred replications of "control" and "treated" olive groves, and a consequently enormous budget (see Annex 1). Stratification was tested, but found not to help. It would be also meaningless, as it would require more complex management of olive groves.

b. Limitation with regard to the data sources for the economic analysis

Although interventions were partially funded the project, so it is clearly documented how much each costed, for each year and each of the three areas, it was decided not to use this information as a basis for the following reasons:

- A multiplicity of implementers was employed at different occasions (year, area). Sometimes employees of the organization (Merabello and Peza), along with sub-contractors (Peza and Nileas). So, the basis for the calculation is not stable. It should be noted that there is no professional subcontracting formally registered in the area of Nileas, so a new situation had to be established.
- Especially in the case of subcontracting, the cost is misleading because of the formal way of doing business, i.e. tenders, decision by the board, year-long contracts with VAT, tax, and insurance etc., i.e. procedures with which neither the subcontractors nor the Farmers' Organization had any prior experience. I addition, the established subcontractors' (formally registered or not) cost was found to be significantly higher

than the cost for the same work carried out by farmers. This was a surprising finding of the project, explained in chapter 2.5, later on.

To overcome this limitation, cost analysis disregarded subcontracting, and was based on farmer doing his own work with owned equipment, or in its absence sharing it with other farmers, supposing farmer grouping. This approach was chosen as a firm, healthy basis for the analysis.

2.4 Socio-economic criteria related to the objectives of oLIVE CLIMA

The criteria used for the present analysis are principally economic and social, sometimes both. They are selected to answer the issue of sustainability of olive crop, comparing the effect of the interventions *vs* the **B**usiness **A**s **U**sual (BaU) background, taking in account the criteria below:

2.4.1 Economic criteria

- Production cost and cost allocation to its constituents.
- Gross and net profit per hectare
- Olive grower's 'salary' per working day and number of working days per year.
- Yield per hectare per year, in Kg olive fruit and Kg olive oil,
- Bienniality index.

2.4.2 Social criteria

- Ratio of 'internal' to 'external' spending, per hectare.
- Opportunities for coalition of olive oil growers in grouped activities.
- Degree of 'steering' of production process for '*quality in quantity*' targets.
- Potential for product's quality differentiation and recognition by the market.
- Degree of introduction of technological innovations in olive growing.

2.4.3 Environmental criteria

- Life Cycle Inventory (LCI) as a base for LCA and PEF.
- Fertilizers use per Ha, and opportunity of their partial substitution.
- Energy production per Ha, and opportunity to substitute fossil fuels.
- Water use per hectare and per kilo of product.
- Long term carbon storage in wood and soil.

Not all of the above criteria are feasible to be examined in a quantitative way in the present analysis, due to their nature, data collection issues, etc.

2.5 Cost analysis approach taken

In order to examine the production cost from a social perspective the following approach was introduced for the production cost of the olive fruit element of olive oil cost (no oil mill data are examined in the first place).

Cost distribution to the following three cost compartments:

- ✓ Farmer's own-time cost (**FC**), to carry out his crop management. Due to the small size of the olive groves, this cost element is the most important for most of olive growing in Greece. On the other hand, it is also very important for the continuation of olive growing, since it is not considered as true cost by the Greek growers, but as part of their overall family income. The indicator used for FC is € / workday of 8

hours. The baseline daily salary is today 60 €/day (used to be 45 in the early years of the project, but was upgraded due to new taxes). The "resulting daily salary" in this study is calculated by dividing the gross profit per hectare by the farmer's working days per year. A well-organized farmer could improve his daily salary considerably, in which case he can start considering replacement of some of his time by external labor (LC, see below) a socially desired process as it involves profit sharing and the effective training of the workers i.e. spreading of successful practices in the local community.

Figure 2 Farmer in weed control with hand-held mower

- ✓ Labor cost (**LC**), i.e. for workers to assist the farmer in is operations. This is a cost that in a 'bad' year could be trimmed if the farmer is forced to carry out all the work by himself. It could also be increased in 'good' years. The policy of oLIVE CLIMA is to encourage the shift to LC, through the increase of farmer's daily salary. The baseline LC cost is considered now to be 45 €/day (8 hours). Before the new taxation regime, it used to be 35 €/day.

FC and LC refer to the implementation of the following practices in an olive grove of small-moderate size as the ones prevailing in Greek olive culture (Figure 1).

1) Application of fertilizers in winter. It is done almost exclusively by hand,
2) Pruning, either traditional or according to the oLIVE CLIMA pattern.
3) Weeding by rotary hand-held hoeing equipment, as shown in Fig. 1,
4) Irrigation (operation of irrigation equipment)
5) Harvesting, mostly by the farmers and the members of the family plus some labor (harvest crew). Also, transportation of olive fruit by farmer's car is quite common.

On the interventions side, broadcasting seeds of green manure can be added here.

- ✓ Payed cost (**PC**) is to purchase inputs like energy, Plant Protection Products (PPPs), and fertilizers, i.e. almost inevitably payed cost. It also includes elements of the capital cost (rent, depreciation etc.), To some extent, this cost element could be reduced, at least to some extent, by replacement of external inputs with alternative practices, i.e. by farmers' own labor (insect monitoring using traps), so that family income is not reduced. Such a replacement has been a target of the project, e.g. to replace part of the purchased fertilizers by spreading pruned wood on soil, by in-house made compost, or by drilling leguminous plants seeds for nitrogen, instead of N fertilizing. The same with Plant Protection Products replaced by techniques (e.g. mass trapping) that are used in organic agriculture. Above all, the introduction of zero tillage replaces the use of machinery (usually subcontracted) with FC or LC to operate the hand-held mower. Hand held mower can also replace the use of herbicides. It should be

mentioned here that some external inputs like agrochemicals have in principle a negative environmental connotation, hence their replacement is desired for the environmental image of production, apart from the economic benefit.

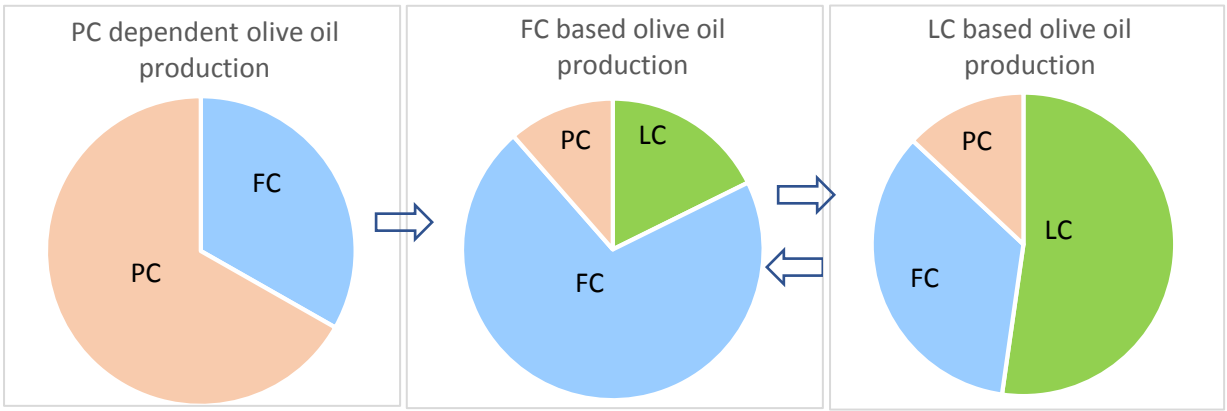
A special segment of payed cost is not for inputs, but for services, such as for sub-contractors to carry out work in the olive groves, by using equipment unavailable to a small olive grower, such as soil cultivation, spraying, wood shredding etc. It has been an interesting finding of the project that the subcontracted cost for a given work, is considerably higher than if the farmer carries it out himself would he have the suitable equipment. The cost difference is due to factors mentioned in #2.3 on the topic of limitations, as external costs imposed to the subcontractor (VAT, taxes and social insurance, which is now proportional to his income), but also to three more factors not related to the present project: 1) Fixed compensation per type of work, e.g. 400€/Ha for ploughing, which is usually set to cover the worst case, with respect to the time needed to plow a hectare, 2) Offer and demand. Equipment owners are not so common in Greece. Depending of the time period in the year, they may be under high demand e.g. during olive harvest period, and lastly 3) They are justified to add on a business profit, over the actual cost.

Subcontracted cost is a target for reduction by social interventions, i.e. by farmers' grouping to share the cost of equipment as well as new technology. Farmers' grouping is a collateral objective of the project, for several reasons to be discussed in the social issues.

For the calculation of the actual (not sub-contracted) the default cost of a tractor was considered to be 50.000€, including repair, maintenance and spare parts for a lifetime of 15.000 hours working hours. For major machinery, like shredder, it was considered as 10.000€ for a lifetime of 10.000 working hours. Fuel consumption and duration of operations was obtained by taking in account numerous recordings.

The objective of oLIVE CLIMA is to reduce 'PC, in favor mainly to FC, and secondarily to

Figure 3 Production cost allocation to categories



LC. The better economic results, the more labor employment can be secured. Olive growing cannot be mechanized to a large extent, so increased income from olive culture means more employment for local labor. However, as this is quite a complex issue, the social elements for the shift depicted in Figure 3 are discussed for each intervention, in chapter 3 (Results).

3. Results

Results are presented by appraisal of each type of interventions as compared to BAU, taking into account the criteria set (see #2.4). Comparison between the three areas is not a primary target of the analysis, but whenever results reveal a situation related to serious differences, it is highlighted.

All the economic criteria of #2.4.1 appear in PPSs for each olive grove, and each year, i.e. 480 PPSs have been compiled during 2013 and 2016. A sample of that is shown in Appendix 1. It should be noted that a PPS shows two pieces of information at the same time, i.e. the performance of the specific olive grove, in uncolored cells to the left, and the average performance of the group of which the olive grove is part, which is shown in the yellow font cells to the right. So, a farmer can see easily and correct or justify an olive grove's poor performance against the average. An olive grower may choose to see the average of all his olive groves performance (provided he has furnished the required recordings) just by choosing to type his code number in cell E4 of the PPS. In the first sheet in Appendix1 the olive growers code number is 206, while the PPS named in cell E4 is 206.09. Since the PPS as a dashboard has limited selection of economic indicators, in Appendix 2, a larger list is available, so an olive grower may choose (on demand) those indicators that make more sense.

The information in Appendices 1 and 2 refer to the BAU and was used as a baseline to compare the effect of the interventions.

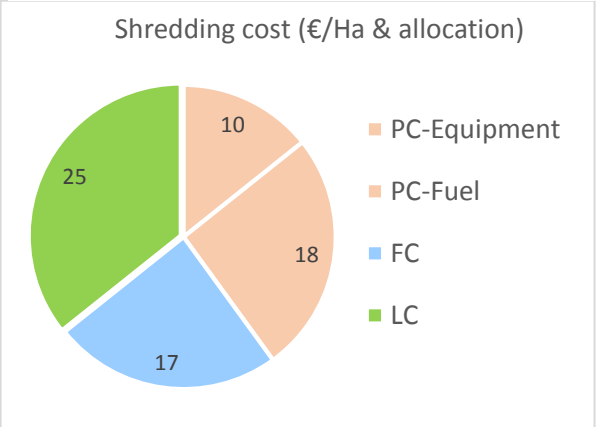
3.1 Action B1-Returning organic material to the soil of olive groves.

3.1.1 Handling of pruned wood - Wood shredding[3] and wood smashing.

This has been the more complex among the interventions, because it was totally new for most farmers, it involved equipment not available to them (except for the group Nileas) and all three forms of cost. So, special attention is given to it.

- Economic criteria: wood shredding seems to offer a small economic benefit to the olive-grower, after deducting the cost of the operation. As the mass of pruned wood is quite variable, it is not possible to present an average value. So, a "calculator" was created (Fig. 5) that can show to the olive grower the operation cost, the savings in cost and quantities of fuel and nutrients. Overall, it seems that it is more economically attractive than bonfire, unless the farmer does not use any labor for the latter. As shown in Fig.4 corresponding to a typical case of pruned wood mass

Figure 4 Allocation of cost for shredding wood



[3] Care has to be taken by olive growers to avoid shredding/smashing in Verticillium infested olive groves. To prevent spreading the disease, when in doubt for its presence samples have to be taken and examined by a qualified plant protection laboratory.

of 2,2 T/Ha (shredded wood) the PC cost, for equipment (10€/Ha) and fuel (18€/Ha) prevail, in a total cost of 70€/Ha.

- Social criteria: In order to avoid the burden of subcontracting, olive-growers should be encouraged to group together to share the cost of the shredder. This cost will be higher for equipment based on auto-feeding -independent from manual feeding- i.e. workers to feed the wood conduct of the shredder. Although this may mean less cost for labor in favor of PC, it has the advantage of less exposure to accidents. Also, part of labor cost will be needed for workers to line-up the pruned wood, ready for the shredder to run over it.
- Environmental criteria: Compared to wood burning, wood shredding exposes the workers less to nasty gases created by the bonfires (mainly due to incomplete burning) as shown in Figure 5 (extracted from a larger table). When shredded wood is spread on the ground or composted, it can reduce fertilizers use by the olive grower, as 1000Kg of dry wood can replace 6.5, 9.0 and 3.0 Kg/Ha of N, P and K respectively, according to the analyses performed on shredded wood by IOTSP. At the same time, it adds 0.55T of C/Ha to enrich soil organic matter (SOM), but the environmental benefit of avoiding the extraction of 300-400 kg of heating fuel (per 1000 Kg of dry wood) is still debatable in the context of the PEFCR development, for the fear of possible double counting, as it happens sometimes with biofuels[4]. Note: The introduction of wood shredding by oLIVE CLIMA has been noticed by the authorities of the Ministry of Agriculture, who consider in their plans measures to encourage it, i.e. a per hectare subsidy to the farmers and also subsidy to grouped farmers to purchase shredders.

Figure 5 Chemical composition of 'bonfire' air

Chemical composition of wood smoke (EPA (1993) Avraamides and Fatta (2006)	
Substance	Inventory value (g/kg wood)
Water vapour	70
Carbon dioxide biogenic	120
Carbon monoxide biogenic	225
Methane biogenic	19.5
VOCs (C2-C7)	17
Aldehydes	3
Benzene	2.3
Acetic acid	2.1
Substituted furans	0.93
Toluene	0.58
Formic acid	0.07
Nitrogen oxides	0.55
Sulphurdioxide	0.2
Napthalene	0.92
Phenol (and derivatives)	0.5
Catechol (and derivatives)	0.5
Fluorene	8.5×10^{-3}
Phenanthrene	0.02

In conclusion, there is a relatively good potential in developing this practice further, the major benefits being to increase SOM and decrease the need for fertilizers, or to replace fuel if removed from the olive grove. So, economically is positive. Socially, it is neutral, or slightly negative, as it happens when new technology replaces labor. Lastly, environmentally it is more benign than burning wood in bonfires. Expansion of wood shredding in an olive dominated area, e.g. in the range of 200 Ha and more, could possibly sustain the

[4] Shredded wood is a biofuel. It can be sold for heating, combusted in fireplaces, furnaces and -nowadays- in specially designed home burners. Although, it has the disadvantage of high proportion of ash left behind, and contamination of urban atmosphere with particulates, the advantage of independence from purchasing fuel gives some relief to olive growers. It should be mentioned that at the beginning of the economic crisis, uprooting of the most old-bulky olive trees for use as fuel was observed.

ΥΠΟΛΟΓΙΣΜΟΙ ΓΙΑ ΤΟ ΚΟΣΤΟΣ ΚΑΙ ΤΟ ΟΦΕΛΟΣ ΣΧΕΤΙΚΑ ΜΕ ΤΟΝ ΘΡΥΜΜΑΤΙΣΜΟ

Αν,		Βασισμένο σε έκταση 1 στρέμματος (0,1 Ha)								
50	Κιλά ξερό χοντρό ξύλο για τζάκι, παράγονται από 1 στρέμμα									
300	Κιλά ξερό ξύλο για θρυμματισμό, παράγονται από 1 στρέμμα									
6,5	Λίτρα πετρέλαιο χρειάζεται ο θρυμματιστής για 1 τόννο ξερό ξύλο									
1,25	€ κάνει το λίτρο πετρέλαιο. Κατανάλωση σε δρόμο	0,1	Lit/Km							
60	λεπτά (μία ώρα) χρειάζονται για να θρυμματιστεί ένας τόννος ξερά κλαδιά									
10000	€ κάνει ένας θρυμματιστής που θα δουλέψει για	10000	ώρες, περίπου, με βάρος			1050	κιλά	0	Kg/Στρέμμα	
50000	€ κάνει ένα τρακτέρ που θα δουλέψει για περίπου	15000	ώρες, με βάρος			3300	κιλά	0,07	Kg/Στρέμμα	
45	€ την ημέρα είναι το κόστος ενός εργάτη							0,10	Kg/Στρέμμα	
60	€ την ημέρα είναι το κόστος ενός χειριστή εξοπλισμού									
2	εργάτες χρειάζονται για τάϊσμα του θρυμματιστή, για ένα στρέμμα.									
Τότε...	1,3	€ είναι το κόστος χρήσης του εξοπλισμού για τον θρυμματισμό σε ένα στρέμμα, και συν. βάρος						0,1	Kg/Ha	
	5,6	€ κοστίζουν τα εργατικά για το θρυμματισμό του ξύλου από ένα στρέμμα								
	2,4	€ κοστίζει το πετρέλαιο για το θρυμματισμό σε ένα στρέμμα								
	12,2	Είναι το συνολικό κόστος για θρυμματισμό του ξύλου που παράγεται από ένα στρέμμα.								
		αν το θρυμματισμένο ξύλο σκορπιστεί στο έδαφος του ελαιώνα, ως λίπασμα.								
	Δηλαδή,	174%	του κόστους που πληρώνει κανείς για να του κάψουν τα κλαδέματα μες τον ελαιώνα					7	€ / στρέμμα.	
Αν,	**ΑΛΛΑ! Το ξύλο είναι λίπασμα. Περιέχει περίπου**	0,65%	0,09%	0,30%	N, P, K, όπου σε €/μον	2,00	2,67	2,7	αντίστοιχα	
1,95	Κιλά (μονάδες) Αζώτου λιγώτερα χρειάζεται να αγοράσεις για το στρέμμα									
0,27	Κιλά (μονάδες) Φωσφόρου λιγώτερα, χρειάζεται να αγοράσεις για το στρέμμα									
0,9	Κιλά (μονάδες) Καλίου λιγώτερα, χρειάζεται να αγοράσεις για κάθε στρέμμα.									
Τότε...	7,1	€ συνολικά/στρέμμα, μπορούν να εξοικονομηθούν από τα θρεπτικά στοιχεία που έχει το θρυμματισμένο ξύλο								
Κόστος	-5,1	**€/Στρέμμα, ΑΛΛΑ ΤΟ ΚΥΡΙΩΤΕΡΟ**: Με την περιεκτικότητα του ξύλου σε άνθρακα, τουλάχιστον						55%		
	165	Κιλά άνθρακα / στρέμμα, έχεις προσθέσει στο έδαφος του ελαιώνα, βοηθώντας να αυξηθεί η γονιμότητά του.								
	0,03%	το χρόνο, μπορεί να αυξάνεται η οργανική ουσία του εδάφους, αν δεν την καταστρέφεις σκάβοντάς το.								
	ΑΛΛΑ! Το ξύλο είναι και ΑΝΑΝΕΩΣΙΜΗ ενέργεια! Ενας τόννος ξερό ξύλο ελιάς αντιστοιχεί σε						350	κιλά πετρέλαιο.		
Αν,	Δεν το σκορπίσεις, μπορείς να το πουλήσεις, μαζί με το χοντρό ξύλο, για χρήση ως καύσιμο.									
20	λεπτά της ώρας χρειάζονται για μεταφορά σε απόσταση	10	χλμ, για πώληση του θρυμματισμένου ξύλου, ως καύσιμο.							
2,3	τόννοι θρυματισμένου ξύλου, που ισοδυναμεί με	5	κυβικά μέτρα, μπορούν να μεταφερθούν, π.χ. με μία καρότσα.							
Τότε...	13,9	€, κοστίζει μέχρι τώρα το φορτίο των	350	κιλών ξερού ξύλου που φεύγει για πούλημα, από ένα στρέμμα.						
	25	€, μπορείς να πουλήσεις το ξύλο, με τιμή πώλησης:	80	€/τόννο χονδρό,	70	€/τόννο θρυμματισμένο.				
	11,1	€ ανά στρέμμα είναι το κέρδος που μένει τελικά, από τη διαδικασία αυτή, αντί για το κάψιμο.								
	Πέρα όμως από αυτό, βοηθάς να μειωθεί η κατανάλωση ορυκτών καυσίμων, άρα το ανθρακικό αποτύπωμα της χώρας μας.									
	ΑΛΛΑ!									
	123	Κιλά πετρελαίου / στρέμμα (ίσο με τα	350	κιλά ξερού ξύλου) εξοικονομούνται για την εθνική οικονομία.						
	Αν όλες τις ελιές της χώρας μας έβγαζαν την ίδια περίπου ποσότητα ξύλου ανά στρέμμα, αυτό θα ισοδυναμούσε με									
	1.372.000	λιγώτερους τόννους πετρέλαιο το χρόνο!								

Orange cells represent variables that the olive grower can change, while light blue cells represent answers (results)

operation of a local peletting unit, offering the opportunity of new employment.

Wood smashing almost equals wood shredding when the shredded wood is spread on soil, but the wood chips produced are more coarse - slower to decompose and cause trouble sometimes during harvest. Also, it requires more tractor traffic in the olive grove, thus an increased risk for soil compaction. Lastly, its cost is split between PC for the tractor, the smasher and fuel, and FC for the farmer – operator. On the other hand, it's benefit is that if properly timed, quite early in spring, it is a multifunctional operation, as it will destroy also the weeds that are present, saving from an additional weed control cost. The operation cost per Ha is calculated to be 125€/Ha, irrespective of the amount of pruned wood present, as the smasher will have to cover the whole land surface i.e. much higher than the shredder.

3.1.2 Olive oil mill waste water distribution on olive grove soil as fertilizer.

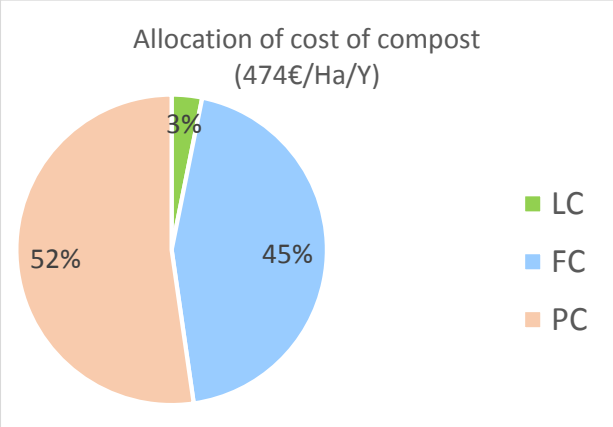
BAU for dealing with OMWW is evaporation ponds, where OMWW is transported by either tank vehicles or by a pipe system. The proposal of the oLIVE CLIMA project for 'solution by dilution', theoretically solves the problem, however it is not easy to apply. The bulky stuff has to be transported by several trips (sometimes >50/Ha) of a suitable container which has capacity of c. 0.5 to 1.0 m3, e.g. usually the spraying tank. A better solution for transportation was not found during the course of the project.
An alternative method is for OMWW to participate in the composting process.

3.1.3 Composting at farm level and compost distribution.

This has been a new practice for all three areas, although not totally unknown, as some organic growers practice it. However, conventional farmers considered it as specific only for organic agriculture. Olive growers usually lose conrol of the composting materials (leaves, stone and oil mill water) as these are waste of the olive oil mill. The proposal of oLIVE CLIMA was to test composting in each -if possible- olive grove, so that olive growers become acquainted with the process and the material obtained and make it a habit of their own. Soon, it was realized that olive growers do not always have the equipment for transporting this organic material in their olive groves, nor the way to stir it from time to time. In rainfed olive groves there is not even water available to irrigate the compost pile. The resulting material was a blend of adequately fermented material (as judged by temperature rise) and material that just dissipated, without the benefit of raising the temperature. So, alternative approaches were used, allowing local subcontractors (Nileas) and olive oil millers to deal with it. At the end, two options were tested. First, to use as composting ground a sparsely planted olive grove and transport to it the organic material (Nileas), and second to use the back yard of the olive oil mills that were property of the farmers' organization (Peza and Merabello). This latter option, proved to have several benefits, over the first.

Figure 6 Leaves transported to the composting ground

- ✓ Economic criteria. For 120m^3 of organic material, which typically consists of 80m^3 leaves (c. 40T) 40 m^3 dry shredded wood (c. 18,5T), transportation of wood to the olive oil mill backyard is half as costly (c. 100€) than transporting the leaves. On top of it, stirring and mixing, as well as irrigation would be another 720€ for the operator and machinery. This latter cost can easily be significantly reduced by mechanization, if more PC is afforded. Finally, given that the composted material should be transported and broadcasted in each olive grove, another 130€ are needed, as the composted material is about 30% of the initial mass, i.e. 40m^3. The overall sum is in the range of 950€ for 40m^3 or 20T of compost, equal to 4.8 € per 100 Kg. Taking in account the compost's nutrient content as IOTSP measured it (1.99% N, 0.20% P and 1.82 K), and the unit cost of each nutrient (2€/Kg for N, 2.67€/Kg for P and 2.74€ for K) it is concluded that at a cost of 4.8€, nutrient supply of 9.5€ is obtained, with the added benefit of adding also to soil 47 Kg of carbon for SOM increase.
- ✓ Social criteria: Compared to fertilizers and commercial manure, composting has the advantage that 48% of the cost remains in the area, in the form of farmer's and labor cost.



The potential amount of leaves and pruned wood available every year in an area of 1000 Ha of olive groves, stocked by the oil mills is about 100T of leaves and about 2000T of shredded pruned wood.
If no other organic material is available, the sum of leaves and a proportion of the pruned wood could suffice to make enough compost c. 40T, to be applied to only 4Ha for one year, i.e. only 04% of the area. In other words, composting under these circumstances is not a replacement of fertilizers and manure. However, it would be very useful if olive millers could get to be interested to develop the know-how of how to compost efficiently, as they could add more 'bulky' organic material of low commercial value, e.g. OMWW, and sludge of the 2 phase olive oil mills. Also, if the local municipalities could organize the collection of organic matter, as long as the leaves and the shredded wood have opened this avenue of waste management via composting.

- ✓ Environmental criteria: From the above, it is obvious that composting solves a waste management issue for oil mills, but much less an issue of fertilizers' replacement. In addition, it can help, maybe equally well as burning, to address plant disease issues in areas where the wood in infested. And of course, it may become a precedence to deal with urban (village) municipal organic waste.
  No adequate information has been found in literature for this type of in-field compost making, to calculate emissions and flows for LCA calculations. It is one of the issues to be further discussed in the PEFCR context, before this is finalized.

3.2 Introduction of new practices to increase carbon sequestration

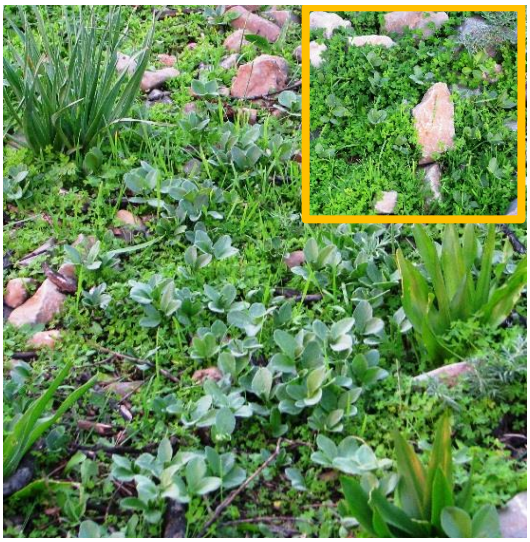
3.2.1 Enrichment of winter vegetation by broadcasting a prescribed seed-mix.

This intervention created an interest to olive growers, some of which especially in Nileas and Merabello, employed it on other olive groves of their property not included in the scope of the project. As a priority, the intervention aimed to fill-in the gaps of natural vegetation, so, it was performed primarily on olive groves that showed soil cover by winter vegetation less than 60%. Poor cover is more common in Crete than in Nileas. In Peza, this is because of a long history of mechanical soil cultivation (rotavator) and glyphosate spraying. In Merabello, partly because of poorer rainfall and partly because of sheep grazing.

Figure 7 Seedling emerge in compressed soil

The intervention consisted in broadcasting the seed mix on bare soil, ideally right after harvesting the olive grove. This was necessary, especially in stone covered types of soil, and was proven successful, especially for legumes as shown in Figure 9.

Figure 9 Seedling emerges in stony uncultivated land



In one occasion, it was attempted to drill the seeds after a light strip-cultivation (Peza, first year) which proved more successful, but zero tillage would then be compromised and the technique would be too complicated in stone covered soils. A problem faced by the zero tillage was that small seeds (barley) were taken up by ants, before they had a chance to sprout. Legume seeds were less exposed to that risk because of their size.

Figure 8 Seedlings out-compete persistent weeds

It was observed that germination and establishment of the introduced seeds was much better if the soil was covered by stalks of previous vegetation, e.g. prior mowing. So, a method tested successfully was to broadcast the seed mix before a forecasted rainy period, and right after broadcasting to mow or smash the existing vegetation, so as to cover the new seeds with debris.

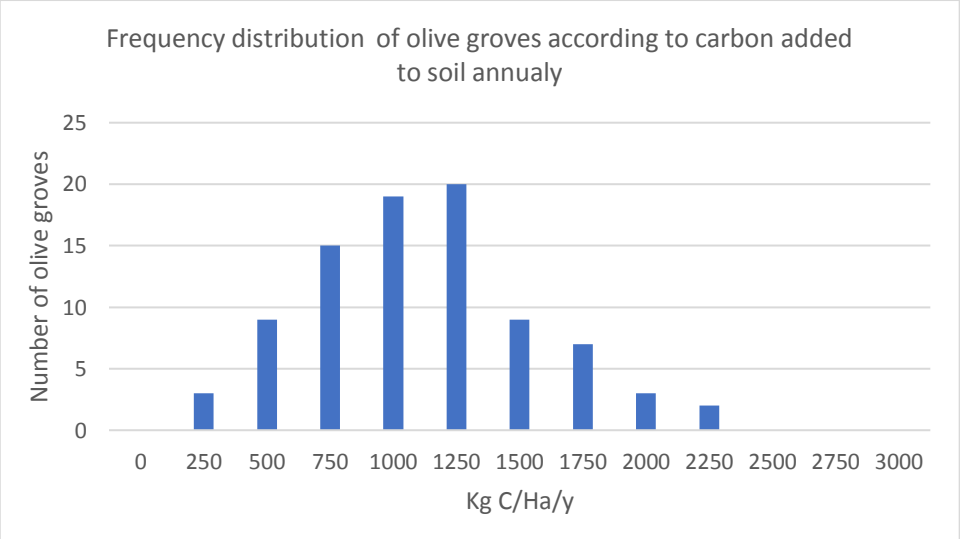
It was noticed that sporadically, olive growers delayed (after March) to destroy the spring vegetation (endogenous and introduced) not realizing that competition with olive trees started. This has been taken into account for further training.

An economic -qualitative- so far benefit was that in some olive groves after successful establishment of the introduced flora, some of the most persistent perennial weeds, like *Conyza sp*. subsided (Nileas). Subject to further observations, this may prove an important benefit.
Assessment of the natural weed and introduced flora was not differential, i.e. all plants within a square meter (3 replicates) were assessed for weight and sampled for analysis. The results on weight appear in table 1 below.

Table 1 Winter vegetation enriched / green manure

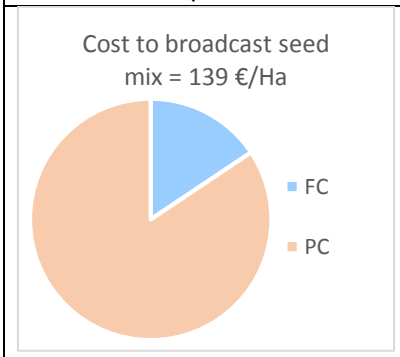
Weight of overall vegetation in olive groves	Kg f.w./Ha
Peza control (Average of 4 years A,B,C & D)	7528
Peza – seed mix added in years A and C	4807
Merabello control (Average of all 5 years)	9265
Merabello seed mix added all 5 years	9577
Nileas control (Average of years A & B)	11203
Nileas seed mix added in years A, B and C	9684

As detailed in #2.3a, the comparison between control and 'intervention' olive groves is not meaningful. The only point that can be raised is the poorer plant mass in Peza, as compared with the two other areas.
As a general overview, the following distribution of the olive groves appears for all three areas (120 olive groves) as regards the tons of carbon added to the soil.



The qualitative result has been the appreciation of this practice by the olive growers. Though known practice from organic farming, it had not extended to conventional olive growing. Now, olive growers accepted it as a novelty and start their own 'experiments'.

The overall appraisal of this intervention is summarized as follows:

Table 2					
Cost per hectare	Gain per hectare in Kg				
	C	N	P	K	€-eq
	924	34	6,4	43	N/A[5]

Environmental criteria: Based on the lessons learned from the implementation of this intervention for the five years of the project, the prospective expansion of this practice could establish benefits for a) erosion control, b) carbon sequestration (biomass could be made to double, i.e. to exceed 2T of C/Ha/y) and c) enhancement of biodiversity. All that, on the condition of no adverse effect on water and nutrient economy of the crop.
To achieve that, further work is needed, to address the following issues, related to the optimization of the seed-mix composition:

- Monitoring soil moisture, to ensure adequate safety margin before competition with olive trees begins in late winter – spring.
- To "customize" the C/N ration in the remnants of this cover-flora / green manure in March.
- Best adaptation to existing biodiversity mix, and steer it to desired biodiversity, taking account of in-soil biodiversity, and especially earthworm populations, with the objective to enhance the rate of carbon secondary sequestration i.e. in more stable, longer-living forms, exceeding 100 years storage time, in order to get eventually the carbon credit for the product.
- Attempt to manipulate the quantity and timing of nitrogen release from the decaying green manure, so as to coincide with the needs of the olive tree, while avoiding release during the rainy period that could enhance nitrogen leaching.
- Coordination of flowering to achieve designed aesthetic results, and the same time to provide niches for pollinating insects.

[5] The nutrients P and K are not 'additional'; they are not imported in the olive grove, but it is just recycling of the amounts found in soil. As for N, although the intervention adds up this nutrient because of the legumes present in the seed mix, it was not possible to quantify this bonus over control or over naturally present legumes in the olive grove seedbed.

3.2.2 Adaptation of pruning

This has been by far the most important contribution of the project towards sustainable management of olive trees. It has to result in a well-balanced ratio between vegetation and fruit (balanced, every year, in order to eradicate biennial bearing[6]). This means that the efficacy of olive groves can be greatly improved by pruning (combined with equally efficacious plant protection), irrespectively to some extent from factors like soil quality affecting water and nutrient availability. Good quality pruning has to adjust for these factors, which means that an operator needs adequate understanding of environmental (soil, meteorological) conditions as well as olive tree physiology.

The pruning method proposed by the project focuses on two results, a) to increase as much as possible the soil cover with olive tree foliage (Figure 10), so as to increase photosynthesis and carbon dioxide assimilation, and b) to increase yield in Kg of fruit/Ha and olive oil content % of fruit (mostly affected by exposure to sun), i.e. finally the yield in Kg olive oil per hectare. Both results are products of the same process, good quality pruning.

Figure 10 Leaves intercept most of the sunlight

During the initial phase of the project, serious differences were recorded between the approach that the three farmers' groups had against pruning, as follows.

Merabello: Occasional / empirical pruning, rarely every year, often every 3-5 years.

Peza: Early spring pruning, mostly every year, professionally trained operators.

Nileas: Winter pruning every year by professionally trained operators. Almost 3 out of the four olive groves in this area are additionally subject to detailed summer pruning.

The adjustment of pruning was appreciated by Merabello olive growers, whilst slower penetration was achieved in Peza and Nileas. This was expected, as almost every experienced olive-grower regards his own technique as unquestionable.

- Economic criteria: In Peza and NILEAS the implementation cost for adjusted pruning was not much higher than BAU, as it differed only with regard to the choices to be made for the selection of vegetation to be removed. In Merabello though, adjusted pruning was of higher cost / Ha, as its frequency was increased. There is no average value for oLIVE CLIMA pruning. In winter time (baseline pruning) it ranges between 50 and 100€/Ha, while the detailed summer pruning is much more labor intensive, and can reach 250€/Ha. Generally speaking, pruning is almost exclusively split between FC and LC, with only a minor part, less than 5% being PC, for chain saw, lubricants and petrol.

  The importance of summer pruning in mitigation of biennial pruning and on the yield of olive trees is paramount. As this practice is most developed in Messinia area where Nileas is located, but not -almost at all- in the two locations of Crete, the effect on

[6] This is an inherent attribute of olive trees, in nature, manageable to be overcome though.

bienniality, and to some extent on yield, is visible, in Figure 11. The fluctuation between yearly yields is more pronounced in the two areas in Crete. In addition, also pronounced is the difference in yields between years, which is also observable in Table 3, below.

Figure 11 Yield differences between locations and years

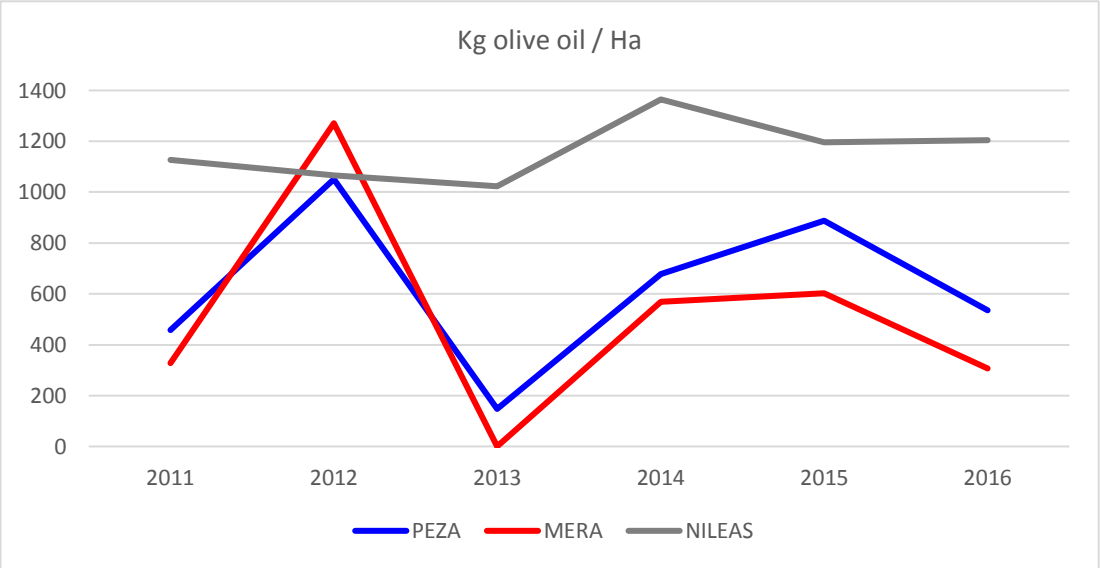
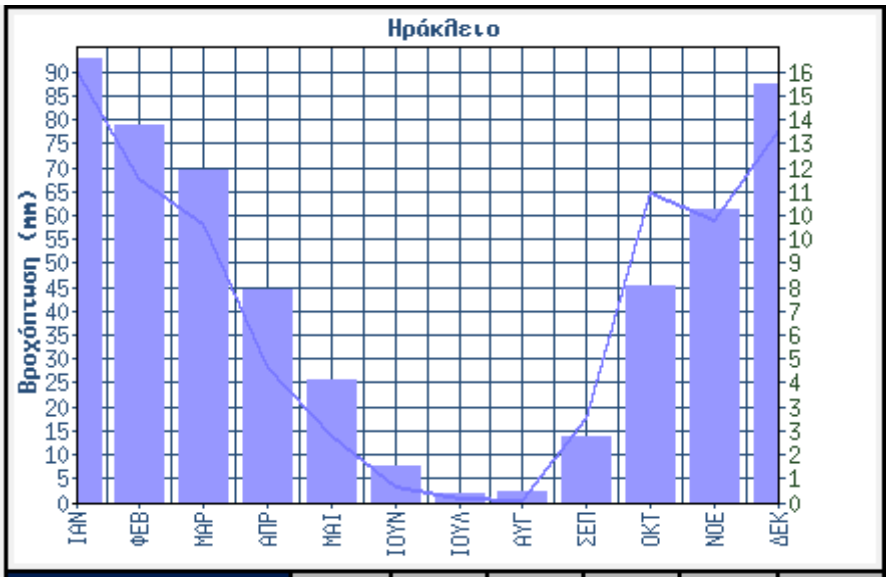


Table 3 Economic performance of olive groves groups				
Production cost (€/Ha)	2013	2014	2015	2016
Peza	833	1320	2078	2257
Merabello	551	2054	1426	1510
Nileas	1205	1105	1226	1303
Production cost (€/Kg oil)				
Peza	4,39	2,51	2,59	3,68
Merabello	N/A	2,81	2,67	3,47
Nileas	1,22	0,95	1,00	1,18

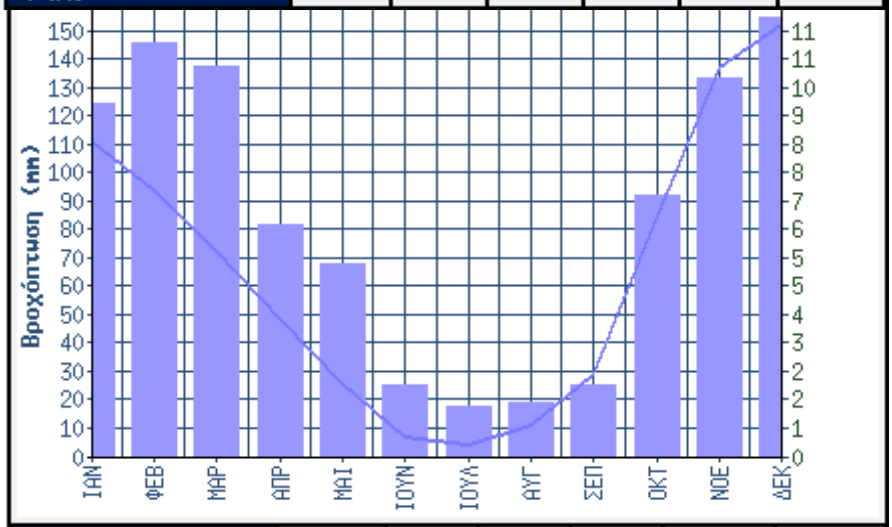
The differences noted in Table 3 for the production cost between the Cretan olive groves and the ones of Nileas most likely are due to environmental factors, such as yearly precipitation. As shown in Figure 12, there is close to 300 mm of more rain in Nileas area (780.3mm), then in central Crete (483.2), in the period up to 2010. Water availability is expected to deteriorate even further in all three areas, due to climate change. Pruning according to oLIVE CLIMA, is a possible adaptation measure for the olive groves. Also, where possible, late winter to early spring irrigation can further close the yield gap. The LIFE14 CCA/GR/000389 - AGROCLIMAWATER project deals exactly with these issues.

- Social criteria: Bienniality is possibly partly related to the occupation of olive growers with work that relates to tourism, which is more intensive in Merabello. Also, with the relatively low importance that small-size, remote olive groves have for the Cretan farmers, especially in Peza, where other farming activities (vines) occupy their time

Figure 12 Yearly rainfall from EMY in Herakleion and Kalamata



1ο Εξάμηνο	ΙΑΝ	ΦΕΒ	ΜΑΡ	ΑΠΡ	ΜΑΙ	ΙΟΥΝ
Μέση Μηνιαία Βροχόπτωση	90.1	67.6	58.2	28.5	14.2	3.5
Συνολικές Μέρες Βροχής	16.0	13.6	12.0	7.7	4.4	1.3
2ο Εξάμηνο	ΙΟΥΛ	ΑΥΓ	ΣΕΠ	ΟΚΤ	ΝΟΕ	ΔΕΚ
Μέση Μηνιαία Βροχόπτωση	1.0	0.6	17.7	64.9	59.0	77.9
Συνολικές Μέρες Βροχής	0.3	0.4	2.4	7.8	10.6	15.1



1ο Εξάμηνο	ΙΑΝ	ΦΕΒ	ΜΑΡ	ΑΠΡ	ΜΑΙ	ΙΟΥΝ
Μέση Μηνιαία Βροχόπτωση	111.7	94.1	73.0	48.5	25.6	7.5
Συνολικές Μέρες Βροχής	9.3	10.9	10.3	6.1	5.1	1.9
2ο Εξάμηνο	ΙΟΥΛ	ΑΥΓ	ΣΕΠ	ΟΚΤ	ΝΟΕ	ΔΕΚ
Μέση Μηνιαία Βροχόπτωση	4.2	11.3	29.1	85.3	137.4	152.6
Συνολικές Μέρες Βροχής	1.3	1.4	1.9	6.9	10.0	11.6

too. So, in Crete, it is somehow convenient for the olive grower to prefer bienniality, as they have to divide their available time between a large number of olive groves. Although this sounds reasonable in a sense, it seems to cause several problems one of which is olive fruit fly. This insect exploits the un-harvested olive fruits to build up its population in the mild winters and in the coastal olive groves. In recent years, the consequence is higher pesticide use and cost, and lower efficacy, leaving room for attacks that deteriorate quality.

During the "off" year, olive growers tend to under-invest in the crop, as they do not expect a good yield. There is a strong suspicion that this under-investment after a year of high production which exhaust the trees and puts their reserves out of balance, may be the cause of over-sensitivity of the trees to adverse weather conditions, such as was noted in 2013 in most of the Greek territory. Judging only from the 120 olive groves in the three areas of oLIVE CLIMA, it is not possible to deduct a serious answer for all the country, but if this suspicion is investigated and confirmed, it could give a potentially good answer to prevent the repetition of the 2013 catastrophe[7].

The low yields of Cretan olive groves, with the reservation that our data bank is only 80 olive groves, create great concern for the sustainability of the olive groves, taking in account the ageing of the traditional olive growers, only small part of which have continuity within the family. This is part of the reasons for semi-abandonment.

Low yields increase the production cost per Kg olive oil to negative net income for the group, in 3 out of the 4 years in Merabello, and 2 of 4 in Peza, as shown in the PPSs in Appendix 1. Usually, adverse weather conditions are blamed. On the contrary, similarly adverse conditions in Nileas (serious / widespread attack of *Gloesposporium* as a result of excessive rainfall in early winter) did not result in serious deterioration of yield, most likely because the trees are better balanced in absence of bienniality.

- Environmental criteria: A collateral problem to increase production cost is the adverse effect of low yields on the environmental footprint of olive oil, since yield in Kg /Ha is the denominator of all the environmental burden due to the olive grove management.

Environmental performance of olive groves groups			
2013-2016 BAU	***Peza***	***Merabello***	***Nileas***
GWP Kg CO_2 –eq. / Ha	783	604	905
Yield (Kg Olive oil /ha)	626	513	1164
GWP Kg CO_2 –eq. / Kg oil	**1.25**	**1.18**	**0.78**

For example, the emissions and flows of the increased inputs in a "on" year, as seen[8] in the table on the left for Merabello and Peza for the "off" 2013/14 *vs* the following years 2014/ 15 and 2015/16, the results for Crete would be much better if the yield was closer to 1000 Kg olive oil /Ha. The PEFCR (**P**roduct **E**nvironmental **F**ootprint -**PEF**- Category Rules) for olive oil, expected to be finished in early 2018, will give the opportunity to olive oil producers to promote

[7] Other serious events that deteriorated yields were in 2016-17 when severe snow fall damaged the olive trees in Peza, leading to extremely high pruning cost, and *Gloeosporium* disease in Nileas in the same year, with effect on olive oil yield and quality.

[8] Results on GWP refer only to the field part of the production, not milling, packing etc.

and compare their olive oil in environmental grounds. Low yields threaten to become a handicap to the lower yielding olive groves.

In addition to yield in olive fruit and olive oil, pruning produces also vegetative growth (wood, stem, leaves) ideally in balance with the reproductive part. So, the higher the yield in fruit / olive oil, the higher the produced wood, or else, the higher the amount of CO_2 removed from the atmosphere. Wood, in its turn can be separated in the part that will be annually removed by pruning and the wood that will become part of the permanent structure of the trees, i.e. roots and trunk. As it is well established that the trunk of olive trees expands in diameter by age, it is certain that in spite of any carbon losses due to autotrophic respiration, the bottom-line is that a large part of carbon trapped in the wood will be permanently stored in it, justifying for carbon credits for olive oil. This has been agreed in the PEFCR context, but calculation details remain to be agreed too.

The pruned wood also offers two options if shredded (see also #3.1.1) . To replace part of the fertilizer used and furnish carbon for SOM increase, if spread on the ground, or to replace heating fuel, if collected and sold in the market. The possible gains in carbon credits are discussed by RodaxAgro, as participant in the PEF Technical Advisory Board.

Finally, long term carbon storage in soil was not documented in any way to be bound to soil permanently, i.e. more than 100 years, so the discussion on carbon credits for that, is postponed.

3.2.3 Zero tillage

RodaxAgro has pioneered during the last 15 years for zero tillage in olive groves and other tree crops, with some degree of success. Especially in Nileas, the penetration of the proposal was greater, followed by Merabello, and with very limited success in Peza. The penetration was related to pressure by the weeds (higher in the more-rainy area of Nileas) and cost. The 'traditional' practice, all over Greece, still is the use of rotavator, seconded by tine cultivator and rarely by disc harrow. The traditional ambition of any farmer has been to keep his soil clean from vegetation. Economic crisis did help get away with cultivation, even in Peza, as farmers wanted to avoid the rotavator's cost . The project oLIVE CLIMA offered a significant opportunity to give this practice a leap forward.

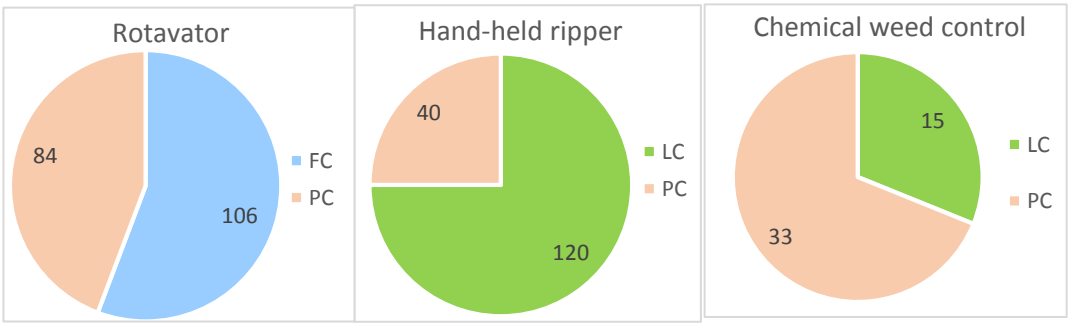
- Economic criteria: Abandonment of tillage leaves open the question of competition by weeds. The winter weeds tend to have high water needs for fruit setting after March, i.e. at a time that olive trees start their yearly cycle. Also, after March rains gradually cease (see Figure 12) so the reserves are to be safeguarded for the dry summer.

  The cost for mechanical cultivation by rotavator is close to 200€/Ha and about that is also the tine cultivator. The preferred alternative is chemical weed control by mainly products containing Glyphosate. The cost is much lower, almost 50€/Ha. A third alternative is the labor-intensive mowing with hand held ripper (see Figure 2) at a much higher cost, i.e. 160€/Ha in late winter-early spring, i.e. at the ideal time for weed eradication. However, this practice may be necessary to be repeated once more in the summer, especially in irrigated olive groves. If persistent perennial weeds are present in the summer the cost can exceed 200€/Ha. Lastly, in olive-groves where the weeds are still young, in early spring they are destroyed by the pruned-wood smasher.

In Merabello and much less in Peza, sheep grazing helps the control of weeds at no cost, while at the same time 'fertilizing' the soil with their droppings.

- Social criteria: Mechanical cultivation (rotavator, tine cultivator and disc need tractor mounted equipment, i.e. the services of a subcontractor). In spring, there is a lot of pressure to deal with the weeds as they may outgrow the sensitive stage (soft stems) and a) become more-costly to control and b) exert already competition to olive trees. This is the reason why an expensive solution like the hand-held ripper is used. The olive grower can act when necessary and weather allows, independent from the time availability of contractors. Also, if the farmer carries out the work himself, he does not count it as true cost. The allocation of time between the three main methods is as shown in Figure 13.

Figure 13 Allocation of weed control cost



- Environmental criteria: The need to completely stop cultivation of soil is quite urgent in Greece, mainly because most of the olive groves are planted on slopes with high inclination. As it can be seen in Figures 14 and 15 the proportion of soil exposed to erosion by sun, wind and rain is considerably high, especially as compared to a nearby forest in Figure 15. This exposure, has detrimental effects on susceptibility to erosion, as seen in Figures 16 and 17. The olive grove in Figure 17 is an oLIVE CLIMA one, in the group of "interventions", whilst the olive grove in Figure 16, has been rotavated.

Figure 14 Bare land even on high inclination

Figure 15 Lifting the protection of vegetation to soil

Lifting the protection that is offered by vegetation (active or dead debris) exposes the soil to erosion, in two different ways. Rain and wind move the loosened-by-cultivation-soil downhill, depleting the fertile topsoil from SOM and nutrients. This makes the olive grove more dependent on chemical fertilizers. Secondly, a more direct effect of sun on the loosened soil reduces its SOM content, through enhanced oxidation, depleting a valuable carbon pool, and sending it back to the atmosphere. One more damage is the one on biodiversity, for members of the chain that inhabit the topsoil. Unfortunately, although there is more than adequate literature to highlight the damage exerted by soil cultivation in tree crops (for annual crops it may be inevitable), no action is taken in European level. Even in organic agriculture, there is only a weak suggestion to avoid practices that encourage erosion. Having in mind the exclusion of herbicides, and the cost of hand-held ripper, the organic farmer is left with no choices than mechanical cultivation.

In this respect, oLIVE CLIMA offered a significant tool to show to farmers the difference between cultivation and zero tillage, especially highlighted by a rainstorm in September 2016 in Nileas area, giving the opportunity to demonstrate this difference in a dramatic as much as unquestionable way, as shown in Figures 16 and 17.

Figure 16 Cultivated 4 months ago

The two olive groves are adjacent, separated by a mud-road 2m wide.

Figure 17 Uncultivated for 15 years

4. Conclusions

The project succeeded to demonstrate to farmers and their consultants working practices alternative to the traditional ones, which enhance CO_2 absorption from the atmosphere, increase carbon sequestration in biomass and carbon storage in soil and wood. The latter is mostly important, as by exceeding 100 years of storage in the permanent structure of the trees, it counts for carbon credits, rendering olive oil as unique among food products to justify for an inherently reduced carbon footprint. Olive oil can capitalize the effort invested by EC in developing the PEFCR for olive oil, and offer to producers Product Environmental Footprint (PEF) to aim to a better position in the market.

The practices introduced by the project are economically sustainable and can assist local olive grower communities to reduce the olive production cost, favoring labor of both the farmers themselves as well as of the local work force, while reducing in parallel dependence and spending for material inputs at times of economic constrain.

Some of the practices, like wood shredding and composting, enhance the necessity for farmers to form coalitions on productive basis to share the equipment cost. Especially as the cost to subcontract is much higher for the same work carried out without subcontracting.

A much more important function of farmers' coalitions is the opportunity to take up part of (at least) of the production decision making. This is more important in face of the climate change threat, which needs mitigation measures like adaptation of pruning which is mostly demanding in technical terms. Also, for nutrition, plant protection and irrigation the olive tree needs have to be met with a lot of more knowledge than traditional practices. Overall, a centrally managed vast olive grove, overcoming the problems associated with tiny scattered olive groves of which it is formed, could make olive oil production profitable, so that olive grove owners do not abandon it. The risk of replacement with other crops is minor for the majority of olive groves in Greece, where traditionally, olive groves occupy inclined land, almost to the same extent as forests.
An example where tradition fails, is the established alternate bearing (bienniality), although according to our findings so far, this destabilization of the olive trees makes them vulnerable to adverse weather. As a preventive measure, technical solution like adapted pruning have to be 'imposed' to farmers, in order to minimize alternate bearing. As adverse-weather frequency is maybe higher under climate change, a more robust technical background has to support decision making in agriculture. In fact, a shift has to be made from production of olive oil, to olive grove governance, given the specific environmental importance of this crop.

5. Recommendations for further work

According to the proverb "*the answer to one question is usually two questions*" the project opened some new avenues of work needed to further support sustainability of olive crop. They are presented below, by reference to the performed interventions, and according to their importance

<u>Pruning</u>

- Having scrutinized through the data of the oLIVE CLIMA project, as well as older data from the project LIFE09 ENV/GR/000302 SAGE10 for the same (albeit much wider) scope, it is deducted that the very serious disaster in Greek olive oil production of the year 2013/2014 (almost 60% lower than average) may have been much milder if care had been given to proper pruning, targeted to minimize the alternate bearing. Hence, it is proposed to the authorities to incorporate into the CAP measures, specific training of olive growers for pruning, with the objective to ensure the sustainability of the crop, deterring its abandonment, for socio-environmental reasons.
- Pruned wood as lingo-fuel. There are two questions related to that. First, an economic study would help olive growers in an area to decide if building a peletting facility would be a viable enterprise. Especially, taking in account the prospective of pruning under the regime of climate change (more, or reduced pruned wood expected?). Second, on how is pruned wood modeled in LCA terms. Could it be also used for carbon credits, i.e. as heating fuel replacement? This question is to be dealt with hopefully in the next months, in the context of the PEFCR.

- Pruned wood as fertilizer. Under zero tillage, there is a question mark on the rate of wood dissipation, as compared to its incorporation within the soil by top soil fauna, especially by earthworms. A proper carbon balance has to be investigated in LCA terms, in order to compare this option for treating the shredded wood *vs* using it as lignofuel.
- Carbon storage in the permanent structure of the olive trees. This parameter is utterly important for the carbon credits of olive oil, but very uncertain as well. Research would be needed for a method to provide an estimate of permanent wood mass, with limited uncertainty, in order to be suitable for robust PEF calculations.
- Risks for disease spreading by pruned wood shredding. Care should be given to avoid anything but burning, in cases that trees are under attack by *Verticillium dahliae.* It is important to carry out monitoring, if in doubt. This affects also the established pruned wood smashing which is established without precautions, in some areas.

Zero tillage

- Strong effort is needed for the expansion of this practice, as it is likely that it has the capacity to increase soil carbon content (SOM) even more than the addition of organic material (IEA communication). Much more than that, research and/or monitoring work is needed to establish a robust method to estimate or calculate the part of carbon that is permanently stored in soil, even deeper than topsoil (up to 150cm).
  The basic objective of the project was to show that the CO_2 that is removed from the atmosphere becomes useful SOM in the ground, and at the same time offer carbon credits to the producers for promoting their products in the market. In absence of the required method, it was not possible to support these credits so far.

Winter drilling of seed mix

- The possible role to compete perennial weeds to eradication, needs investigation.
- Also, the questions posed in chapter #3.2.1 need to be answered.

Composting

- The results of composting can possibly be further improved by research in the addition of oil mill waste water in it. Taking account of transportation burden and also of the dubious quality of fermentation achieved at farm level, it seems finally that composting could be better placed in the backyard of olive oil mills, offering thus a solution in waste management for an environmentally problematic area, i.e. the evaporation ponds as it is today. This is to be also proposed to the authorities for inclusion in the CAP measures.
- A proper dataset for this type of non-industrial (even at the olive oil mill level) compost as a waste management process, in order to be used in LCA for the production of olive oil.

Social issues

- Our (RodaxAgro) proposal for taking up technical responsibility and decision making by farmers' coalitions on production grounds, is novel. It tends to cover several problems

at the same time, i.e. the ageing of the traditional olive growers, the lack of adequate knowledge of new farmers on e.g. plant physiology (for pruning), on soil properties and plant nutrition (for fertilization), disease and insect biodynamics as well as PPPs' properties (for plant protection) etc. Of course, the trivial answer is 'more training', but the number and scatter of olive growers is such, that it would not be a cost-effective exercise. However, a proper sociological research would be needed to examine the acceptability of such a proposal, the constraints and opportunities etc.

Product Environmental Footprint (PEF)

RodaxAgro Ltd participates in the development of PEFCR (PEF Category Rules) for olive oil by EC. A method for safeguarding the accuracy, verifiability and traceability of the information used for the determination of the environmental performance of a given "olive oil X" has to be developed and incorporated in the PEFCR. The fact that PEF is designed to allow product comparisons and comparative assertions, makes such a method an imperative need for safeguarding the integrity of the PEF scheme. See also Appendix 1, on this issue.

Primary data recordings by farmers -as long as they are the decision makers- are the most critical pre-requisite for proper interpretation of the production and performance indicators. However, they also prove to be quite low in priority by the farmers, so alternative methods have to improvised to capture the detailed inputs.

APPENDIX 1

SAMPLE SIZE FOR PEFCR OLIVE OIL

SAMPLE SIZE FOR PEFCR OLIVE OIL (proposal for the PEFCR)

1. Introduction

- In situations where primary data are mandatory for the field phase, there is a need for high accuracy of inventory data, especially for those inputs that influence mostly the results, like agrochemical (nitrogen fertilizers and pesticides), water, energy (fuel and electricity) use, as well as for yield per unit area. The latter has a dual role, i.e. affects the land use indicator but also affects the sensitivity of the results, being the single denominator of the emissions.
- Olive oil price variation, biennial bearing and the variable influence of the inputs suppliers (agrochemicals) are drivers affecting inventories, in addition to the natural ones like climate change etc. Variation of inputs and of yield for olive growing has been found to be even higher than for other tree crops.
- Accuracy of the inventory is also important for the identification of weak practices that lead to poor results, mainly economically but also environmentally. As for all crops, data may reveal correlation of parameters that influence the appearance of problems such as pest & disease outbreaks, malnutrition and poor fruit setting, but opportunities too for improvement of product quality. So, investment in accurate data collection has been considered as a primary goal, anyhow, even before assessing PEF.
- Farmers are known to be very poor recorders of their activities, but at the same time their cooperation is indispensable if accurate data are needed. The problem is amplified when large number of small holders contribute to build a considerable volume of a homogenous product. A 50 T tank of olive oil from Greece usually contains a blend of olive oil lots from about 200-300 parcels of olive groves, belonging to about 40 or even 120 farmers. The unit of reference is the olive oil parcel and not the farmer, especially in situations where biennial bearing is dominant for olive growing.
- The balance between the benefit of credible data and the cost for their collection has not yet been achieved in a satisfactory way, not even for organic agriculture (where activity recordings is mandatory) and for other certification schemes. PEF now offers a new challenge. An effective approach would benefit PEF's credibility too.

2. Methods implemented

2.1 Questionnaires, distributed to farmers, once or twice per year. They have been used in the first LCA for olive oil (LIFE04 ENV/GR/110 project ECOIL). They are not suitable for product comparison.

2.2 Data logs kept by farmers and checked by a certification body 1-2 times per year. Used mostly in organic farming and private certification schemes. The success rate for timely, accurate and complete records has been found to be less than 5% of the farmers in the last 20 years in Greece, Cyprus and (a small sample) in south Italy. The remaining 95% of recordings are usually completed by consultants by interviewing farmers (often by phone) close to the time of the audit. This approach has never been used for product comparisons. It could be used by PEF, but its reputation may drag down PEF's credibility.

2.3 Strict recording system under continuous control. Farmers are requested to record their activity in pre-designed forms (completeness of information) immediately after doing it (timeliness) and hand it to the controller, usually an agronomist, within time defined by the possibility to verify it by sampling, visual observation etc. Recorded data are then being processed to reveal consistency, quality of practices, cost etc.

Also, to some extent it can reveal frauds, misleading information etc. due to a risk assessment process built- in the system. The system is usually subject to a second level control and to a yearly internal audit. The success rate of such as system, after adequate training of farmers and controllers has been found after its establishment in 2003-2008 to exceed 80%-90%. As all the control system is very well documented it would be suitable for a credible PEF and it could be used for improvement of PEF based environmental (and economic) performance.

The disadvantages of the above system are the economic cost for services (controls, on and off site, internal and sometimes external audits) and time cost for farmers. Depending on the quality of the feedback provided by the system[9], sometimes they maintain it in an elaborate way (by e-mails etc.) or slip to the option 2.2 above, i.e. consultant-based system, or even abandon it completely.

In conclusion, the strict recording system is appropriate for implementation for PEF, provided that data collection process will last for a definite length of time. Thus, it could be incorporated in a sampling system, if representativeness is guaranteed.

3. Sampling

Sample size has to be large enough to deal with the uncertainty (of measurement) of the inventory data. Uncertainty, as expressed by the standard deviation of data is known to be quite high in agriculture. In olive growing it is among the highest. Literature search on this question is continuous.

A statistical approach[10] (not yet fully explored, currently in development) based on Standard Deviation (SD) has been used to determine the sample size, as follows:

Sample size determination

The formula for calculating the minimum (for a nearly normal distribution) sample size, for Confidence Level (CL) 90% and Confidence Interval (margin of error=ME) +/- 10% is:

$$N_{(90,\,+/-10\%)} = \frac{Z^2 * stdev^2}{(mean*10\%)^2} = \frac{Z^2 * stdev^2}{0{,}1^2 * mean^2} = \frac{Z^2}{0{,}01} * CV^2 = \frac{1{,}645^2}{0{,}01} = \mathbf{270{,}6*CV^2}$$

As, for 90% confidence level Z=1,645, and stdev/mean=Coefficient of Variation (CV).

Similarly, for confidence level 95%, where Z=1,96, and same ME it becomes

$$N_{(95,\,+/-10\%)} = \frac{1{,}96^2}{0{,}01} = \mathbf{384{,}2*CV^2}$$

As for a 5% margin of error this is x4. The denominator becomes $(0{,}05)^2 = 0{,}0025$, hence the multiplier of CV^2 to find sample size $N_{(90,\,+/-5\%)}$= **1082** and $N_{(95,\,+/-5\%)}$=**1537**!

Such large samples may be easy to get for yields/Ha, where data are readily available from oil mills at least at farmer level (not parcel) since they are mandatory for fiscal use. This is needed as yields are linearly related to the results of the 'field' phase.

	Kg N/Ha		
SAGE10 DATA	P2011	P2012	P2013
n	200	200	174
n (>0)	97	117	120
mean	57,10	63,8	76,5
stdev	70,75	69,0	86,3
CV	1,24	1,08	1,13
Skew	1,16	1,17	1,21
N5%- 90%	**590**	**450**	**488**
N10%-90%	**415**	**317**	**344**

Data in the table above are from one of the three areas in Greece (Peza) and refer to Kg of N input in 3 years and 200 parcels. Data from other areas, inputs and years follow a similar pattern, i.e. the sample size

[9] Feedback may be information to the farmer on the economic performance of their crop, or recognition by the market of the guarantees offered by the group as a supplier. In more advanced situations the system has been used for (parcel-)product segregation in quality classes.

[10] Based on Statistical Methods by Snedecor & Cochran, Iowa, and on Excel formula for Confidence.

exceeds the size of the population from which data originate.

There are several questions to be answered yet, such as:

a. Should the occasional zero inputs population contribute to the SD? The answer so far is yes, but further elaboration is considered.
b. Should the SD be based on unprocessed data, or after they are summarized or even averaged? So far, we use the conservative approach for unprocessed data.
c. Should the same approach be used for temporal (closer to normal distribution) and spatial (usually skewed) SD? We tend to abandon the analysis for temporal SD, as the LEAP approach is more consistent way to follow.
d. Should we use lognormal distribution or other correction for skewness, especially for the spatial SD? Under investigation.
e. Would bootstrap method help us to considerably reduce sample size, without losing accuracy of the results? Planned to be investigated.

4. Proposed approach outline (subject to be tested)

Due to the cost of data collection and the inconsistencies that may proliferate by sampling, we have considered proposing the following approach:

4.1 Objectives:

- To minimize the effort and cost of data collection, without jeopardizing the quality and integrity of PEF values.
- To fulfill the PEF needs of a large olive oil manufacturer who collects raw material (olive oil of any type, e.g. from extra virgin to pomace) from different levels of organizations, i.e. from large olive plantations, olive oil mills, cooperatives, merchants etc.
- To secure unquestionable PEF performance of the blends manufactured, linked to traceability of each batch to the olive groves where olive oil comes from.

4.2 Proposed procedure (subject to further investigation and consultation)

Local PEFs are produced, either as performance values (preferred) or as PEF compliant datasets (optional - complicated). They can be considered for example as 'Local PEF Modules' {LPM).

It is advisable that LPMs PEF performance is not only verified in a robust manner but also 'authorized' by all potential stakeholders, i.e. authorities, trade associations, LCA experts, NGOs etc.

The size of a LPM is such as to be manageable for representativeness according to the strict data collection system described above. The size could be a whole island or a part of it, a whole region or part of it etc. The requirement to be fulfilled is the homogeneity of olive crop across the area of the LPM (some similarity to PDOs).

Each LPM shall have definite geographical scope, supported by GIS data, especially when carbon footprint credits are to be claimed. All olive oil produced within this broad LPM scope may use the generic PEF performance for marketing and promotion.

Also (very important for competition and continuous improvement) any producer's group or individual olive oil producer may design a new locally-owned PEF within the broad LPM, by selecting e.g. organic, high performing or specific olive groves (e.g. aged >200

years) provided that the 3-year strict data collection process will be followed. To further facilitate things, the exceptional PEF performing LPM can use the PEF compliant data sets -if publicly available, or at a cost for intellectual rights payed to the developer of the data sets (incentive for farmers to create datasets).

Even though reasonable stratification is expected, it should be avoided, because it would complicate traceability.

The PEF of an LPM shall have a definite or indefinite time validity, to be reviewed at a given interval.

A manufacturer, procuring from two different locations has just to calculate the performance of the final blend proportionally to the volumes used.

ΔΙΚΑΙΟΥΧΟΙ Έργου

Συντονιστής Αναπτυξιακή Ανώνυμη Εταιρεία Ο.Τ.Α. Ανατολικής Θεσσαλονίκης	www.anatoliki.gr
Ελληνικός Γεωργικός Οργανισμός «Δήμητρα» Γενική Διεύθυνση Αγροτικής Έρευνας Ινστιτούτο Ελιάς & Υποτροπικών Φυτών Ινστιτούτο Εδαφολογίας Ινστιτούτο Εγγείων Βελτιώσεων	 www.nagref-cha.gr www.ssia.gr www.lri.gr
Συστήματα Διαχείρισης για Περιβάλλον & Ποιότητα	www.rodaxagro.gr
Πανεπιστήμιο Βασιλικάτα Ιταλίας Τμήμα Ευρωπαϊκού & Μεσογειακού Πολιτισμού	www2.unibas.it/dicem
Αγροτική Ενημέρωση	www.agrotypos.gr
Ομάδα Παραγωγών Νηλέας Χώρα Μεσσηνίας	www.nileasoliveoil.gr
Ένωση Αγροτικών Συνεταιρισμών Πεζών, Ηρακλείου	www.pezaunion.gr
Ένωση Αγροτικών Συνεταιρισμών Μεραμβέλλου, Λασιθίου	www.easm.gr

Με τη συνεισφορά του χρηματοδοτικού μέσου LIFE + της Ευρωπαϊκής Ένωσης.

Τηλ.: 2310 463930-1,
E-mail: info@oliveclima.eu

www.oliveclima.eu

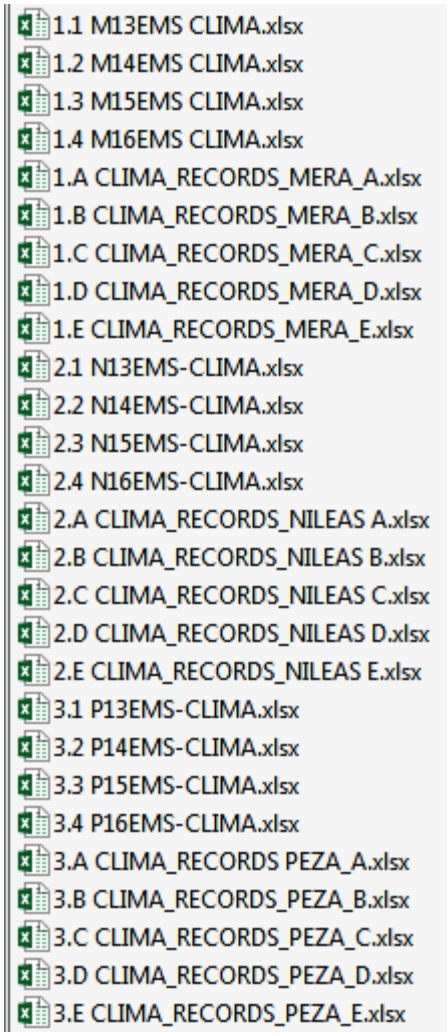
APPENDIX 2

Sample of PPS and of data supporting it

The following workbooks have been used to support the production of the PPPs/Olive grove.

Contents: A. PPS for sample olive groves, and B. Processed data used to create the PPSs

(for details please refer to the report C1.1: Data collected and recorded



Part A. PPS for sample olive groves

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	**MERA 2013/2014**		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	**206**
5	0,00	204,47	N/A	N/A	[illegible]	ΙΝΗΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	**206,09**
7	0,00	76,99	N/A	N/A	Περιοχή	ΕΟΧΩΡΟ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	130,00	61,81	N/A	N/A	0,0	0,0
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	26,93	N/A	N/A	0,00	0,0
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	3,01	N/A	N/A	0,0	0
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	498,46	177,97	N/A	N/A	0,0	0,0
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	0,00	0,00	N/A	N/A	0,00	0,00
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	184,62	154,21	N/A	N/A	-628,5	-551
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	129,23	125,35	N/A	N/A	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	184,62	178,49	N/A	N/A	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	628,46	551,17	N/A	N/A	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	PEZA 2013/2014		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	510
5	1296,00	330,23	1,44	1,74		ΙΗΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	510,04
7	510,19	160,79	0,63	0,85	Περιοχή	ΜΕΛΕΣΑΝΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	0,00	67,97	0,14	0,36	899,4	814,8
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	129,00	19,57	0,67	0,10	191,43	189,7
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	33,59	0,00	0,18	0,1	0
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	0,00	16,46	0,00	0,09	0,0	0,0
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	197,14	204,51	1,03	1,08	536,00	531,12
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	624,52	348,32	3,26	1,84	-1596,3	-302
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	2,8
21	838,10	203,16	4,38	1,07	ημερομίσθιο παραγωγού €	45
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	35
23	500,00	168,98	2,61	0,89	Τιμή ενέργειας €/kWh	0,09
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	1,7
25	2132,33	833,12	11,14	4,39	Τιμή πετρελαίου €/Lit	1,4

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	NILEAS 2013/2014		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	23
5	353,61	138,17	0,03	0,14	--	ΙΑΚΟΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	23,02
7	221,95	225,36	0,04	0,23	Περιοχή	ΠΑΝΑΓΙΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	0,00	88,58	0,01	0,09	12015,6	5633,7
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	101,84	13,42	0,05	0,01	1935,56	985,3
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	104,67	48,12	0,05	0,05	26,4	10
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	0,00	49,01	0,00	0,05	23,9	12,0
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	1443,78	642,01	0,75	0,65	5419,56	2758,82
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	1057,09	394,04	0,55	0,40	3149,3	1554
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	837,61	418,49	0,43	0,42	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφαδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	234,61	223,68	0,12	0,23	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	2270,29	1204,67	1,17	1,22	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	MERA 2014/2015		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	206
5	0,00	28,29	0,00	0,04	L	ΝΗΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	206,09
7	633,85	258,86	0,17	0,35	Περιοχή	ξοχωρο
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	1375,51	137,53	0,00	0,19	7476,9	3883,0
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	0,00	0,00	0,00	1471,84	732,0
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	21,78	0,00	0,03	0,0	0
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	489,23	162,29	0,33	0,22	0,0	0,0
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	1080,71	1445,63	0,73	1,97	4121,14	2049,63
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	588,02	1002,83	0,40	1,37	541,8	-5
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	650,64	527,52	0,44	0,72	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	455,54	156,89	0,31	0,21	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	3579,30	2054,38	2,43	2,81	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	ΡΕΖΑ 2014/2015		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	142
5	239,65	410,37	0,07	0,78		ΙΟΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	142,11
7	30,48	516,08	0,01	0,98	Περιοχή	ΚΑΣΤΕΛΟΣ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	0,00	56,03	0,00	0,11	3378,2	2604,4
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	6,30	0,00	0,01	656,15	525,7
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	181,20	31,42	0,28	0,06	14,9	7
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	0,00	6,80	0,00	0,01	13,1	13,1
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	217,26	293,12	0,33	0,56	1837,22	1471,99
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	595,91	266,41	0,91	0,51	1126,5	152
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	2,8
21	11,61	451,34	0,02	0,86	ημερομίσθιο παραγωγού €	45
22	Κόστος εφαδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	35
23	0,00	32,36	0,00	0,06	Τιμή ενέργειας €/kWh	0,09
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	1,7
25	710,74	1320,12	1,08	2,51	Τιμή πετρελαίου €/Lit	1,4

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	NILEAS 2014/2015		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	43
5	187,46	131,07	0,02	0,11	[illegible]	ΜΗΤΡΑ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	43,02
7	0,00	256,17	0,00	0,22	Περιοχή	ΒΕΛΑΝΙΔΙΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	0,00	58,06	0,00	0,05	10357,1	6471,2
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	28,43	9,78	0,02	0,01	1840,66	1160,7
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	139,59	22,48	0,08	0,02	15,3	7
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	0,00	35,16	0,00	0,03	26,4	12,3
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	1319,86	591,80	0,72	0,51	5153,85	3249,89
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	611,21	282,67	0,33	0,24	3478,5	2145
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	924,27	430,95	0,50	0,37	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφαδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	19,82	100,29	0,01	0,09	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	1675,35	1104,53	0,91	0,95	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	MERA 2015/2016		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	101
5	0,00	73,38	0,00	0,14	[illegible]	ΡΙΟΥ)
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	101,03
7	254,60	267,54	0,10	0,50	Περιοχή	ΚΑΨΑΛΟΣ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	1000,00	102,52	0,00	0,19	2500,0	2607,3
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	0,00	0,00	0,00	500,00	534,4
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	34,97	0,00	0,07	0,0	0
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	57,50	103,03	0,12	0,19	0,0	0,0
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	766,00	844,61	1,53	1,58	1400,00	1496,42
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	37,50	440,68	0,08	0,82	-678,1	70
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	750,00	539,59	1,50	1,01	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	266,40	184,35	0,53	0,34	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	2078,10	1426,05	4,16	2,67	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	ΡΕΖΑ 2015/2016		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	501
5	0,00	245,32	0,00	0,31	*	ΙΑΡΙΑ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	501,01
7	222,06	856,73	0,05	1,07	Περιοχή	ΠΛΑΓΙΑΔΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	18,18	116,25	0,00	0,15	7386,4	4042,6
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	29,65	0,00	0,04	1306,82	801,5
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	51,68	216,36	0,04	0,27	1,5	18
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	152,00	15,91	0,12	0,02	13,1	13,1
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	119,32	597,42	0,09	0,75	3659,09	2244,30
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	61,70	732,05	0,05	0,91	3095,8	167
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	0,00	99,03	0,00	0,12	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφαδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	296,65	429,52	0,23	0,54	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	563,24	2077,65	0,43	2,59	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	19.12.2014	ΕΚΔΟΣΗ 2	NILEAS 2015/2016		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	27
5	216,67	96,03	0,02	0,08		ΝΟΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	27,03
7	826,09	293,25	0,12	0,24	Περιοχή	ΜΕΓΑΜΠΕΛΙΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	200,67	82,11	0,00	0,07	14170,0	7081,0
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	8,41	0,00	0,01	2562,50	1222,1
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	58,00	28,14	0,02	0,02	12,0	8
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	186,18	26,45	0,07	0,02	37,6	13,4
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	1304,72	691,58	0,51	0,57	7175,00	3421,85
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	478,24	316,10	0,19	0,26	4338,2	2196
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	1317,00	469,95	0,51	0,38	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφαδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	846,46	150,00	0,33	0,12	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	2836,77	1225,97	1,11	1,00	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	14.02.2016	ΕΚΔΟΣΗ 2	MERA 2016/2017		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	233
5	0,00	193,43	N/A	0,44		ΝΑ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	233,04
7	241,15	221,23	0,13	0,51	Περιοχή	ΦΘΕΝΙΑΔΟ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	300,00	17,80	N/A	0,04	0,0	1906,1
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	0,00	N/A	0,00	0,00	434,7
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	36,81	N/A	0,08	8,9	12
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	345,71	170,60	N/A	0,39	0,0	16,1
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	0,00	646,88	N/A	1,49	0,00	1217,19
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	357,14	465,47	N/A	1,07	-886,9	-70
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	2,8
21	0,00	473,85	N/A	1,09	ημερομίσθιο παραγωγού €	45
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	35
23	288,57	177,38	N/A	0,41	Τιμή ενέργειας €/kWh	0,09
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	1,7
25	886,87	1286,74	N/A	2,96	Τιμή πετρελαίου €/Lit	1,4

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	14.02.2016	ΕΚΔΟΣΗ 2	PEZA 2016/2017		Εκδότης:	ΡοδαξΑγρο ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	117
5	307,69	646,89	0,14	1,05		ΝΗΣ
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	117,19
7	355,77	541,63	0,13	0,88	Περιοχή	ΚΑΜΙΝΙΑ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	0,00	72,43	0,02	0,12	2270,0	2843,8
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	47,31	21,20	0,10	0,03	454,00	613,3
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	0,00	64,98	0,00	0,11	9,4	24
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	0,00	81,08	0,00	0,13	13,1	13,1
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	265,86	829,23	0,59	1,35	1271,20	1717,37
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	374,23	974,38	0,82	1,59	249,9	-540
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	267,73	516,39	0,59	0,84	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	311,54	175,89	0,69	0,29	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	1021,29	2257,43	2,25	3,68	Τιμή πετρελαίου €/Lit	*1,4*

1	LIFE 11 ENV/GR/942 - oLIVE CLIMA Δράση C7					
2	ΔΕΛ.ΕΠ (PPS)- ΔΕΛΤΙΟ ΕΠΙΔΟΣΗΣ ΕΛΑΙΩΝΑ - ΠΑΡΑΓΩΓΟΥ - ΟΜΑΔΑΣ ΠΑΡΑΓΩΓΩΝ					
3	14.03.2017	ΕΚΔΟΣΗ 2	NILEAS 2016/2017		Εκδότης:	RodafAgro ΕΠΕ
4	Κόστος κλαδέματος €/Ha		Κόστος κλαδέματος€/Kg λάδι		Κωδικός Παραγωγού	98
5	212,12	238,00	0,02	0,22	[redacted]	
6	Κόστος λίπανσης €/Ha		Κόστος λίπανσης€/Kg λάδι		Κωδικός ελαιώνα	98,02
7	282,20	211,84	0,04	0,19	Περιοχή	ΕΓΚΛΙΑΝΟΣ
8	Κόστος Διαχείρισης Εδάφους €/Ha		Κόστος Διαχείρισης Εδάφους €/Kg λάδι		Απόδοση σε Kg ελαιόκαρπο/Ha	
9	80,68	80,34	0,00	0,07	12393,9	6726,9
10	Κόστος Χημ. Ζιζανιοκτονίας//Ha		Κόστος Ζιζανιοκτονίας/€/Kg λάδι		Απόδοση σε Kg ελαιολάδου/Ha	
11	0,00	1,84	0,00	0,00	2083,33	1102,7
12	Κόστος Φυτοπροστασίας €/Ha		Κόστος Φυτοπροστασίας€/Kg λάδι		Ημέρες ιδίας απασχόλησης/Ha	
13	136,82	39,62	0,07	0,04	27,4	10
14	Κόστος άρδευσης €/Ha		Κόστος άρδευσης€/Kg λάδι		Εργατοημέρες απασχόλησης/Ha	
15	212,12	43,97	0,10	0,04	0,0	15,9
16	Κόστος συγκομιδής €/Ha		Κόστος συγκομιδής €/Kg λάδι		Ακαθάριστη πρόσοδος (€/Ha)	
17	776,05	687,34	0,37	0,62	5833,33	3087,51
18	Ιδια ημερομίσθια €/Ha		Ιδια ημερομίσθια €/Kg λάδι		Καθαρή πρόσοδος (€/Ha)	
19	1097,64	380,29	0,53	0,34	4103,0	1785
20	Αμειβόμενα ημερομίσθια €/Ha		Αμειβόμενα ημερομίσθια €/Kg λάδι		Τιμή πώλησης λαδιού €/Kg	*2,8*
21	0,00	556,05	0,00	0,50	ημερομίσθιο παραγωγού €	*45*
22	Κόστος εφοδίων €/Ha		Κόστος εφοδίων €/Kg λάδι		Αμοιβή εργάτη €/ημέρα	*35*
23	337,20	208,67	0,16	0,19	Τιμή ενέργειας €/kWh	*0,09*
24	Σύνολο κόστους €/Ha		Σύνολο κόστους €/Kg λάδι		Τιμή βενζίνης €/Lit	*1,7*
25	1730,29	1302,95	0,83	1,18	Τιμή πετρελαίου €/Lit	*1,4*

Part B. Processed data used to create the PPSs

MERABELLO 2013-14 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
103,04	103	0,20	0,0	315,0	210,0	0,0	0,0	0,0	0,0	0,0	525,0	525,0	0,0	0,0	0	0	0,0	15,0	15,0	0%	0	-525	-
234,14	234	0,20	243,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	243,0	0,0	27,3	210,0	0	0	0,7	0,0	0,7	100%	0	-243	-307
222,04	222	0,08	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
103,06	103	0,10	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
103,09	103	0,15	0,0	400,0	266,7	0,0	0,0	0,0	0,0	0,0	666,7	666,7	0,0	0,0	0	0	0,0	19,0	19,0	0%	0	-667	-
209,02	209	0,15	0,0	1066,7	266,7	0,0	0,0	0,0	0,0	0,0	1333,3	0,0	1333,3	0,0	0	0	33,3	0,0	33,3	100%	0	-1333	0
234,15	234	0,30	186,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	186,5	0,0	66,7	115,0	0	0	1,7	0,0	1,7	100%	0	-186	-69
233,07	233	0,23	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
238,02	238	0,46	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
136,03	136	2,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
206,02	206	0,04	0,0	1098,3	489,8	0,0	0,0	0,0	775,0	0,0	2363,1	404,3	1540,8	275,0	0	0	38,5	11,6	50,1	77%	0	-2363	-7
203,10	203	0,40	10,5	706,7	340,0	0,0	0,0	24,0	448,9	0,0	1530,2	1037,0	62,5	292,5	0	0	1,6	29,6	31,2	5%	0	-1530	-187
222,08	222	0,05	0,0	0,0	0,0	0,0	1077,1	0,0	0,0	0,0	1077,1	0,0	0,4	1066,7	0	0	0,0	0,0	0,0	100%	0	-1077	-106667
101,03	101	0,10	293,7	0,0	0,0	0,0	0,0	0,0	200,0	0,0	493,7	0,0	126,3	332,0	0	0	3,2	0,0	3,2	100%	0	-494	-105
232,07	232	0,14	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
232,10	232	0,19	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
206,08	206	0,26	0,0	379,7	194,7	0,0	0,0	0,0	140,4	0,0	714,7	160,7	490,6	63,5	0	0	12,3	4,6	16,9	73%	0	-715	-5
233,02	233	0,30	0,0	0,0	0,0	0,0	0,0	0,0	395,0	0,0	395,0	0,0	133,3	228,4	0	0	3,3	0,0	3,3	100%	0	-395	-69
233,04	233	0,35	473,6	0,0	0,0	0,0	0,0	0,0	1290,3	0,0	1763,9	0,0	1142,9	570,3	0	0	28,6	0,0	28,6	100%	0	-1764	-20
203,11	203	1,00	10,5	507,9	200,0	0,0	0,0	24,0	222,3	0,0	964,7	717,0	5,0	176,4	0	0	0,1	20,5	20,6	1%	0	-965	-1411
206,10	206	0,18	0,0	0,0	0,0	130,0	0,0	0,0	0,0	0,0	130,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-130	-
240,01	240	0,15	0,0	0,0	0,0	130,0	0,0	0,0	0,0	0,0	130,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-130	-
234,11	234	0,45	285,3	0,0	55,6	130,0	0,0	0,0	0,0	0,0	470,9	55,6	43,1	233,3	0	0	1,1	1,6	2,7	40%	0	-471	-217
166,07	166	0,47	0,0	0,0	52,9	130,0	0,0	0,0	0,0	0,0	182,9	52,9	0,0	0,0	0	0	0,0	1,5	1,5	0%	0	-183	-
209,01	209	0,60	0,0	0,0	66,7	130,0	0,0	0,0	0,0	0,0	196,7	66,7	0,0	0,0	0	0	0,0	1,9	1,9	0%	0	-197	-
238,05	238	0,65	0,0	0,0	61,5	130,0	0,0	0,0	0,0	0,0	191,5	61,5	0,0	0,0	0	0	0,0	1,8	1,8	0%	0	-192	-
136,02	136	0,80	0,0	0,0	50,0	130,0	0,0	0,0	0,0	0,0	180,0	0,0	50,0	0,0	0	0	1,3	0,0	1,3	100%	0	-180	0
234,04	234	0,80	199,3	0,0	31,3	130,0	0,0	0,0	0,0	0,0	360,5	31,3	23,3	170,6	0	0	0,6	0,9	1,5	39%	0	-361	-293
234,06	234	1,40	32,9	0,0	17,9	130,0	0,0	0,0	0,0	0,0	180,8	17,9	2,9	29,3	0	0	0,1	0,5	0,6	12%	0	-181	-406
234,08	234	0,20	352,8	0,0	125,0	130,0	0,0	0,0	0,0	0,0	607,8	125,0	34,8	310,0	0	0	0,9	3,6	4,4	20%	0	-608	-356
222,07	222	0,05	0,0	0,0	500,0	0,0	0,0	0,0	0,0	0,0	500,0	500,0	0,0	0,0	0	0	0,0	14,3	14,3	0%	0	-500	-
206,09	206	0,16	0,0	0,0	0,0	130,0	0,0	0,0	498,5	0,0	628,5	129,2	184,6	184,6	0	0	4,6	3,7	8,3	56%	0	-628	-40
206,12	206	0,20	0,0	44,0	0,0	130,0	0,0	0,0	346,4	0,0	520,3	0,0	150,0	196,4	0	0	3,8	0,0	3,8	100%	0	-520	-52
175,03	175	0,21	228,6	0,0	95,2	132,4	0,0	0,0	42,1	0,0	498,3	95,2	43,2	222,7	0	0	1,1	2,7	3,8	28%	0	-498	-206
180,01	180	0,25	351,2	320,0	0,0	130,0	0,0	0,0	0,0	0,0	801,2	0,0	400,0	259,2	0	0	10,0	0,0	10,0	100%	0	-801	-26
203,16	203	0,40	10,5	0,0	0,0	130,0	0,0	24,0	429,1	0,0	593,7	17,0	62,5	277,6	0	0	1,6	0,5	2,0	76%	0	-594	-178
233,03	233	0,40	379,9	0,0	62,5	130,0	0,0	0,0	232,4	0,0	804,8	62,5	187,5	377,6	0	0	4,7	1,8	6,5	72%	0	-805	-81
203,14	203	0,80	10,5	0,0	62,5	130,0	0,0	24,0	642,1	0,0	869,1	79,5	31,3	466,6	0	0	0,8	2,3	3,1	26%	0	-869	-597
203,17	203	1,40	0,0	0,0	35,7	130,0	0,0	0,0	630,5	0,0	796,3	35,7	10,7	462,9	0	0	0,3	1,0	1,3	21%	0	-796	-1728
203,15	203	1,60	10,5	156,3	0,0	130,0	0,0	24,0	825,8	0,0	1146,6	173,3	15,6	619,0	0	0	0,4	5,0	5,3	7%	0	-1147	-1585

PEZA 2013-14 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
501,01	501	0,88	0,0	237,0	136,4	0,0	114,0	0,0	0,0	38,6	526,0	0,0	443,6	22,5	1184	299	0,04	0,00	0,04	100%	837	311	18571
102,05	102	0,25	279,9	0,0	0,0	0,0	0,0	250,0	0,0	0,0	529,9	261,5	13,7	232,0	0	0	0,00	0,00	0,00		0	-530	-
104,02	104	0,14	239,8	0,0	0,0	0,0	60,2	40,8	0,0	1168,5	1509,3	785,6	354,9	306,9	4620	1197	0,01	0,00	0,01	100%	3351	1841	277509
104,01	104	0,17	182,9	0,0	0,0	0,0	63,5	40,8	0,0	1143,4	1430,6	599,0	534,8	241,0	3523	912	0,01	0,00	0,01	100%	2555	1124	160875
107,05	107	0,25	0,0	320,0	160,0	320,0	0,0	0,0	0,0	0,0	800,0	0,0	480,0	0,0	0	0	0,00	0,00	0,00		0	-800	-
108,01	108	0,09	0,0	444,4	222,2	388,9	0,0	0,0	0,0	0,0	1055,6	0,0	666,7	0,0	0	0	0,00	0,00	0,00		0	-1056	-
120,13	120	0,09	559,2	890,3	229,4	139,0	0,0	0,0	0,0	206,5	2024,4	790,9	443,0	502,3	1432	227	0,06	0,00	0,06	100%	636	-1388	2314
504,05	504	0,23	177,4	0,0	0,0	47,6	0,0	0,0	0,0	99,1	324,1	0,0	80,9	222,8	921	237	0,06	0,00	0,06	100%	662	338	7919
117,19	117	0,13	0,0	322,1	34,6	0,0	46,7	0,0	0,0	223,4	626,8	99,8	437,8	27,7	1407	301	0,04	0,00	0,04	100%	844	217	18732
117,21	117	0,32	0,0	401,0	34,6	0,0	59,6	146,3	0,0	332,7	974,2	104,3	751,7	34,0	1591	342	0,04	0,00	0,04	100%	957	-18	24014
123,02	123	0,46	0,0	312,4	42,4	66,0	0,0	261,2	0,0	385,4	1067,5	0,0	679,0	268,8	1304	332	0,04	0,00	0,04	100%	930	-137	16735
505,03	505	0,24	0,0	629,7	0,0	208,3	0,0	0,0	0,0	0,0	838,1	629,7	0,0	0,0	0	0	0,00	0,00	0,00		0	-838	-
506,01	506	0,25	0,0	160,0	160,0	513,7	0,0	0,0	0,0	0,0	833,7	0,0	320,0	113,7	0	0	0,00	0,00	0,00		0	-834	-
128,10	128	0,11	225,6	209,5	181,8	0,0	0,0	0,0	0,0	0,0	616,9	0,0	395,7	185,5	0	0	0,00	0,00	0,00		0	-617	-
507,02	507	0,15	295,7	0,0	0,0	0,0	0,0	0,0	0,0	49,2	344,9	0,0	91,8	240,3	281	65	0,20	0,00	0,20	100%	182	-163	-290
508,10	508	0,43	0,0	452,2	206,6	0,0	12,8	0,0	0,0	0,0	671,6	206,6	390,1	0,0	0	0	0,00	0,00	0,00		0	-672	-
142,11	142	0,17	466,9	0,0	0,0	23,5	0,0	0,0	0,0	175,3	665,7	122,1	52,7	457,0	1454	319	0,04	0,00	0,04	100%	894	229	10649
510,03	510	0,12	437,6	405,0	166,7	12,6	0,0	0,0	0,0	0,0	1021,9	166,7	382,2	386,4	0	0	0,00	0,00	0,00		0	-1022	-
510,06	510	0,20	309,0	336,0	450,0	12,6	0,0	0,0	0,0	197,1	1304,8	871,4	301,3	11,4	675	144	0,09	0,00	0,09	100%	402	-903	4273
510,07	510	0,15	50,1	324,0	200,0	12,6	0,0	0,0	0,0	136,2	722,9	318,4	306,0	11,4	992	218	0,06	0,00	0,06	100%	609	-114	9904
501,02	501	0,12	0,0	333,3	0,0	0,0	114,0	0,0	0,0	310,1	757,4	0,0	534,5	22,5	1849	444	0,03	0,00	0,03	100%	1244	486	41326
502,18	502	0,98	0,0	0,0	0,0	0,0	61,0	0,0	0,0	0,0	61,0	0,0	37,0	0,0	0	0	0,00	0,00	0,00		0	-61	-
502,03	502	0,76	0,0	0,0	0,0	0,0	0,0	0,0	0,0	73,1	73,1	0,0	68,2	0,0	559	144	0,09	0,00	0,09	100%	403	330	4414
503,02	503	2,00	352,5	18,8	2,0	0,0	0,0	141,0	304,8	1240,1	2059,3	136,1	1332,9	395,4	1571	334	0,04	0,00	0,04	100%	935	-1124	13748
503,01	503	0,62	451,1	40,9	19,4	0,0	0,0	141,0	306,6	203,8	1162,7	198,5	265,2	486,4	2011	428	0,03	0,00	0,03	100%	1197	34	23144
504,04	504	0,50	0,0	0,0	0,0	47,6	0,0	0,0	0,0	0,0	47,6	0,0	2,2	45,4	0	0	0,00	0,00	0,00		0	-48	-
123,01	123	0,65	0,0	0,0	0,0	0,0	0,0	153,7	0,0	0,0	153,7	0,0	22,4	107,1	0	0	0,00	0,00	0,00		0	-154	-
505,04	505	1,20	0,0	582,1	250,0	250,0	0,0	0,0	0,0	0,0	1082,1	783,3	0,0	0,0	0	0	0,00	0,00	0,00		0	-1082	-
506,10	506	0,43	0,0	511,6	0,0	462,5	0,0	0,0	0,0	883,7	1857,9	0,0	1311,6	113,7	981	310	0,04	0,00	0,04	100%	867	-991	17758
179,12	179	1,11	0,0	180,2	26,6	45,6	0,0	85,5	0,0	0,0	337,8	0,0	261,7	45,0	0	0	0,00	0,00	0,00		0	-338	-
179,15	179	0,74	0,0	216,2	19,9	54,7	0,0	45,7	0,0	0,0	336,5	0,0	262,1	54,1	0	0	0,00	0,00	0,00		0	-337	-
179,16	179	0,55	0,0	145,5	0,0	55,2	0,0	22,8	0,0	0,0	223,5	0,0	165,3	54,5	0	0	0,00	0,00	0,00		0	-223	-
179,20	179	1,21	0,0	231,4	24,4	8,9	0,0	15,0	0,0	355,7	635,4	161,7	411,0	8,3	1474	307	0,04	0,00	0,04	100%	860	225	19942
507,08	507	0,53	334,8	28,7	0,0	0,0	67,6	0,0	0,0	162,8	593,8	5,7	232,6	308,7	318	73	0,18	0,00	0,18	100%	206	-388	-577
507,09	507	0,21	203,7	41,0	0,0	0,0	54,5	0,0	0,0	20,8	320,0	7,6	58,8	202,2	193	45	0,29	0,00	0,29	100%	125	-195	-263
141,01	141	0,78	0,0	205,1	18,9	13,1	0,0	0,0	0,0	390,5	627,6	267,3	288,4	12,8	2020	421	0,03	0,00	0,03	100%	1178	551	37363
509,06	509	0,53	254,7	493,6	377,4	0,0	0,0	0,0	0,0	0,0	1125,7	377,4	679,2	0,0	0	0	0,00	0,00	0,00		0	-1126	-
142,12	142	0,27	784,1	0,0	0,0	23,5	0,0	0,0	20,7	50,7	879,0	30,3	32,4	809,8	339	81	0,2	0,0	0,2	100%	226	-653	-3593
510,04	510	0,15	510,2	1296,0	0,0	0,0	129,0	0,0	0,0	197,1	2132,3	838,1	624,5	500,0	899	191	0,1	0,0	0,1	100%	536	-1596	525
510,02	510	0,61	316,6	478,0	0,0	12,6	0,0	0,0	26,2	136,2	969,7	364,3	216,7	329,6	992	218	0,1	0,0	0,1	100%	609	-361	4630

NILEAS 2013-14 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
8,02	8	0,40	185,3	144,1	62,3	34,5	0,0	27,0	0,0	485,0	938,0	498,2	189,6	188,6	4498	769	4,7	14,2	19,0	25%	2153	1215	414
41,04	41	0,50	245,6	0,0	0,0	0,0	0,0	0,0	0,0	522,1	767,7	120,0	386,8	213,8	4828	962	9,7	3,4	13,1	74%	2694	1927	257
43,02	43	0,56	199,8	109,9	0,0	250,0	77,4	99,0	0,0	1008,6	1744,7	942,6	201,0	198,8	12321	2277	5,0	26,9	32,0	16%	6375	4630	1229
30,01	30	0,45	309,9	177,8	0,0	40,0	0,0	0,0	0,0	600,0	1127,6	484,4	280,5	288,2	9333	1444	7,0	13,8	20,9	34%	4044	2917	536
23,01	23	0,70	119,1	179,8	114,3	154,9	5,8	53,1	0,0	678,4	1305,3	546,5	405,1	130,9	7706	1340	10,1	15,6	25,7	39%	3752	2447	358
55,05	55	0,81	128,1	0,0	0,0	19,1	0,0	0,0	0,0	731,7	879,0	246,3	424,3	129,6	5380	843	10,6	7,0	17,6	60%	2360	1481	210
17,03	17	0,99	150,8	0,0	0,0	101,0	0,0	0,0	0,0	80,9	332,7	144,1	62,7	113,3	1160	188	1,6	4,1	5,7	28%	527	194	264
20,02	20	1,01	347,0	326,7	39,6	25,1	0,0	0,0	0,0	159,9	898,3	178,2	387,0	318,5	1842	270	9,7	5,1	14,8	66%	757	-142	45
23,02	23	1,80	221,9	353,6	44,4	0,0	101,8	104,7	0,0	1443,8	2270,3	837,6	1057,1	234,6	12016	1936	26,4	23,9	50,4	52%	5420	3149	196
48,01	48	1,90	0,0	21,1	0,0	0,0	0,0	0,0	0,0	1254,4	1275,4	478,9	701,8	0,0	4105	844	17,5	13,7	31,2	56%	2364	1088	135
27,03	27	0,40	1049,3	190,5	50,0	200,0	0,0	0,0	163,4	1002,2	2655,4	1104,7	357,9	822,0	7960	928	8,9	31,6	40,5	22%	2597	-58	198
10,02	10	0,45	182,2	266,7	22,2	17,4	0,0	122,6	426,7	308,9	1346,7	466,7	256,4	222,3	2756	510	6,4	13,3	19,7	32%	1428	82	188
59,05	59	0,46	260,6	87,0	64,9	15,7	15,8	47,3	58,3	289,0	838,5	108,7	365,7	266,1	4539	891	9,1	3,1	12,2	75%	2496	1657	244
10,05	10	0,53	291,6	301,9	18,9	17,4	0,0	124,9	362,3	285,3	1402,2	396,2	341,4	314,8	3626	673	8,5	11,3	19,9	43%	1883	481	184
17,07	17	0,69	203,6	0,0	0,0	260,9	0,0	0,0	27,7	221,4	713,7	128,5	119,5	153,0	2227	448	3,0	3,7	6,7	45%	1254	541	369
17,10	17	0,80	164,7	0,0	0,0	100,0	0,0	35,1	119,7	160,5	579,9	181,3	163,7	139,8	1625	248	4,1	5,2	9,3	44%	693	113	135
180,11	180	0,82	0,0	0,0	9,8	0,0	15,6	90,0	0,0	164,0	279,3	116,9	88,4	46,5	1556	293	2,2	3,3	5,5	40%	820	540	350
180,06	180	0,99	0,0	0,0	8,1	0,0	19,4	90,0	0,0	512,6	630,0	361,2	173,1	46,7	5644	1010	4,3	10,3	14,6	30%	2828	2198	643
98,02	98	1,32	0,0	0,0	0,0	62,1	0,0	37,0	87,7	1178,2	1365,1	397,7	759,0	77,6	8561	1712	19,0	11,4	30,3	63%	4794	3429	249
8,04	8	2,00	215,2	183,3	175,0	50,9	0,0	40,5	70,0	152,0	886,9	332,5	257,8	224,3	2850	573	6,4	9,5	15,9	40%	1603	716	214
40,04	40	0,86	284,7	186,0	18,2	108,9	0,0	10,6	0,0	850,8	1459,3	398,3	680,7	235,9	10616	1661	17,0	11,4	28,4	60%	4651	3192	259
58,01	58	1,10	0,0	0,0	0,0	27,3	72,3	73,7	0,0	730,8	904,1	446,9	313,2	68,6	7973	1305	7,8	12,8	20,6	38%	3653	2749	458
200,01	200	1,10	0,0	0,0	0,0	68,2	45,5	169,8	0,0	639,7	923,1	690,9	121,5	33,4	8364	1045	3,0	19,7	22,8	13%	2927	2004	953
41,03	41	1,27	329,8	31,5	19,8	57,5	11,9	0,0	0,0	990,9	1441,5	283,5	724,3	308,3	7236	1194	18,1	8,1	26,2	69%	3344	1902	168
73,02	73	1,30	136,9	130,8	5,0	92,3	0,0	33,8	0,0	1284,1	1682,9	396,9	984,8	112,3	6500	1382	24,6	11,3	36,0	68%	3870	2188	153
8,01	8	2,20	229,5	49,2	47,7	147,3	0,0	44,2	0,0	241,9	759,8	268,2	103,8	227,3	3203	564	2,6	7,7	10,3	25%	1579	819	521
21,01	21	3,00	0,0	0,0	0,0	30,0	0,0	29,7	0,0	643,1	702,8	420,0	194,4	17,5	5339	841	4,9	12,0	16,9	29%	2355	1652	481
211,01	211	1,30	287,0	0,0	0,0	80,8	26,9	71,0	0,0	442,0	907,6	230,8	269,8	247,7	6569	1298	6,7	6,6	13,3	51%	3634	2726	502
30,04	30	4,37	352,3	137,3	30,5	53,5	0,0	0,0	0,0	549,3	1122,9	195,0	492,0	331,9	2391	423	12,3	5,6	17,9	69%	1185	62	69
10,03	10	0,53	193,4	226,4	55,8	102,4	0,0	124,9	241,5	654,9	1599,4	641,5	376,2	232,7	5336	993	9,4	18,3	27,7	34%	2782	1182	271
180,10	180	0,80	0,0	0,0	12,9	112,5	20,0	95,5	0,0	416,7	657,5	276,1	155,3	46,7	4813	1013	3,9	7,9	11,8	33%	2835	2177	718
10,04	10	1,00	0,0	480,0	53,6	62,3	0,0	0,0	0,0	1360,4	1956,3	1250,0	486,7	17,0	7850	1343	12,2	35,7	47,9	25%	3760	1804	308
27,04	27	1,20	151,9	133,3	160,0	275,0	0,0	0,0	92,3	662,3	1474,8	587,5	366,7	119,0	3255	487	9,2	16,8	26,0	35%	1363	-112	136
180,08	180	1,50	45,0	0,0	11,6	30,0	14,9	90,0	38,6	668,0	898,1	415,3	289,9	85,2	6607	1107	7,2	11,9	19,1	38%	3099	2201	416
59,01	59	2,06	225,9	116,5	48,4	43,7	109,4	78,5	47,6	975,7	1645,6	218,4	1017,2	250,0	7140	1449	25,4	6,2	31,7	80%	4056	2410	150
8,03	8	3,50	480,5	89,0	150,0	115,9	0,0	37,0	45,7	597,9	1516,1	601,4	298,4	460,1	5454	1055	7,5	17,2	24,6	30%	2954	1438	334
55,03	55	3,78	141,2	0,0	0,0	36,2	0,0	17,0	0,0	723,5	918,0	189,8	514,7	140,3	4185	712	12,9	5,4	18,3	70%	1994	1076	144
17,04	17	1,52	173,3	0,0	0,0	177,6	0,0	73,9	63,4	486,7	974,9	351,3	260,9	164,0	6895	1423	6,5	10,0	16,6	39%	3984	3009	586
12,01	12	0,87	1708,0	92,0	23,0	173,0	0,0	0,0	115,5	966,6	3078,1	229,9	814,3	1712,6	6092	1236	20,4	6,6	26,9	76%	3460	382	86
44,01	44	0,60	0,0	133,3	133,3	400,0	0,0	104,0	0,0	556,4	1327,1	576,7	318,1	7,2	5000	723	8,0	16,5	24,4	33%	2025	698	254

MERABELLO 2014-15 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
103,04	103	0,20	0,0	0,0	0,0	0,0	0,0	0,0	0,0	67,2	67,2	0,0	0,0	0,0	1555	365	0,0	0,0	0,0		1022	955	-
234,14	234	0,20	0,0	0,0	0,0	0,0	0,0	0,0	0,0	705,6	705,6	705,6	0,0	0,0	2408	470	0,0	20,2	20,2	0%	1317	612	-
222,04	222	0,08	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
103,06	103	0,10	0,0	0,0	0,0	0,0	0,0	0,0	0,0	204,5	204,5	0,0	0,0	0,0	5860	1111	0,0	0,0	0,0		3111	2906	-
103,09	103	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	145,4	145,4	0,0	0,0	0,0	3360	790	0,0	0,0	0,0		2212	2067	-
209,02	209	0,15	0,0	0,0	0,0	170,7	0,0	77,5	0,0	1980,0	2228,2	1980,0	58,3	173,2	3447	1320	1,5	56,6	58,0	3%	3696	1468	2417
234,15	234	0,30	0,0	0,0	0,0	0,0	0,0	20,6	0,0	507,2	527,8	507,2	13,1	2,6	1867	338	0,3	14,5	14,8	2%	947	419	2878
233,07	233	0,23	0,0	212,2	347,8	0,0	0,0	0,0	0,0	0,0	560,0	0,0	521,7	0,0	0	0	13,0	0,0	13,0	100%	0	-560	0
238,02	238	0,46	69,1	0,0	0,0	0,0	0,0	52,6	0,0	527,9	649,6	527,9	65,9	39,8	1587	352	1,6	15,1	16,7	10%	985	336	574
136,03	136	2,00	0,0	0,0	0,0	0,0	0,0	13,8	0,0	1147,6	1161,4	100,0	1000,0	10,8	3566	713	25,0	2,9	27,9	90%	1997	836	79
206,02	206	0,04	92,8	0,0	0,0	18,3	0,0	0,0	1237,5	543,3	1891,9	388,5	1041,8	372,5	4465	879	26,0	11,1	37,1	70%	2461	569	80
203,10	203	0,40	357,4	0,0	0,0	0,0	0,0	37,5	129,8	0,0	524,6	40,6	37,5	346,9	0	0	0,9	1,2	2,1	45%	0	-525	-370
222,08	222	0,05	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
101,03	101	0,10	445,6	0,0	0,0	0,0	0,0	0,0	75,0	690,0	1210,6	690,0	185,0	306,0	3000	600	4,6	19,7	24,3	19%	1680	469	297
232,07	232	0,14	0,0	0,0	0,0	0,0	0,0	0,0	314,3	5639,8	5954,1	214,3	5476,2	171,4	8305	1637	136,9	6,1	143,0	96%	4583	-1371	32
232,10	232	0,19	0,0	0,0	0,0	0,0	0,0	0,0	455,8	212,2	668,0	0,0	362,0	271,6	4643	938	9,0	0,0	9,0	100%	2626	1958	260
206,08	206	0,26	0,0	0,0	0,0	0,0	0,0	0,0	207,7	351,1	558,8	131,5	327,5	73,1	1512	298	8,2	3,8	11,9	69%	833	274	93
233,02	233	0,30	670,0	0,0	0,0	0,0	0,0	74,3	309,0	2550,7	3604,0	542,9	2233,3	645,8	5300	1137	55,8	15,5	71,3	78%	3183	-421	45
233,04	233	0,35	400,0	342,9	228,6	0,0	0,0	97,8	149,1	636,6	1854,9	66,7	1328,6	302,4	3163	657	33,2	1,9	35,1	95%	1840	-15	46
203,11	203	1,00	280,4	0,0	0,0	0,0	0,0	37,5	353,9	637,3	1309,1	620,0	20,0	261,9	2277	382	0,5	17,7	18,2	3%	1070	-239	1616
206,10	206	0,18	457,2	0,0	0,0	170,5	0,0	0,0	0,0	243,5	871,3	120,9	138,5	110,7	1389	273	3,5	3,5	6,9	50%	766	-106	189
240,01	240	0,15	744,0	0,0	0,0	212,1	0,0	56,1	476,4	8326,7	9815,3	200,0	8344,9	799,3	12000	1933	208,6	5,7	214,3	97%	5413	-4402	22
234,11	234	0,45	324,4	0,0	0,0	143,4	0,0	0,0	0,0	676,7	1144,5	676,7	0,3	0,0	2336	451	0,0	19,3	19,3	0%	1263	119	181888
166,07	166	0,47	343,4	0,0	0,0	130,0	0,0	0,0	0,0	380,2	853,6	380,2	0,4	0,0	1382	331	0,0	10,9	10,9	0%	926	72	93421
209,01	209	0,60	0,0	0,0	0,0	45,6	0,0	77,5	0,0	2180,0	2303,1	2180,0	51,2	9,9	6833	1453	1,3	62,3	63,6	2%	4069	1766	3174
238,05	238	0,65	368,6	0,0	0,0	125,7	0,0	52,6	0,0	281,5	828,5	281,5	45,4	49,3	869	188	1,1	8,0	9,2	12%	526	-303	420
136,02	136	0,80	280,0	0,0	0,0	110,7	0,0	8,1	0,0	1176,0	1574,8	0,0	1120,0	5,1	4204	841	28,0	0,0	28,0	100%	2354	779	84
234,04	234	0,80	305,0	0,0	0,0	170,5	0,0	20,6	0,0	817,8	1313,9	817,8	13,4	36,6	2792	545	0,3	23,4	23,7	1%	1527	213	4436
234,06	234	1,40	287,1	0,0	0,0	24,4	0,0	20,6	0,0	155,3	487,4	155,3	13,2	2,6	586	104	0,3	4,4	4,8	7%	290	-198	872
234,08	234	0,20	380,0	0,0	0,0	272,7	0,0	0,0	0,0	1811,7	2464,4	1811,7	0,3	0,0	6836	1208	0,0	51,8	51,8	0%	3382	917	432876
222,07	222	0,05	480,0	0,0	0,0	571,2	0,0	0,0	0,0	0,0	1051,2	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-1051	-
206,09	206	0,16	633,8	0,0	0,0	1375,5	0,0	0,0	489,2	1080,7	3579,3	650,6	588,0	455,5	7477	1472	14,7	18,6	33,3	44%	4121	542	249
206,12	206	0,20	704,5	0,0	0,0	150,4	0,0	0,0	440,5	2450,0	3745,4	785,0	1859,6	579,5	9025	1777	46,5	22,4	68,9	67%	4974	1229	95
175,03	175	0,21	280,0	0,0	0,0	518,8	0,0	0,0	281,2	773,4	1853,4	0,0	764,9	235,7	3214	714	19,1	0,0	19,1	100%	2000	147	92
180,01	180	0,25	0,0	0,0	0,0	762,9	0,0	0,0	200,0	13364,2	14327,1	0,0	13353,6	0,0	4320	1080	333,8	0,0	333,8	100%	3024	-11303	9
203,16	203	0,40	526,1	0,0	0,0	272,4	0,0	37,5	180,0	2421,1	3437,0	2411,5	62,5	176,9	9393	1576	1,6	68,9	70,5	2%	4413	976	2711
233,03	233	0,40	280,0	0,0	0,0	51,4	0,0	74,3	242,6	1425,3	2073,6	492,9	1021,1	134,1	4505	1025	25,5	14,1	39,6	64%	2870	796	107
203,14	203	0,80	585,6	0,0	0,0	34,0	0,0	37,5	249,4	1382,0	2288,4	1300,7	31,3	261,9	4981	836	0,8	37,2	37,9	2%	2340	52	2660
203,17	203	1,40	531,7	0,0	0,0	136,2	0,0	37,5	362,5	1014,8	2082,7	986,7	17,9	221,2	3741	628	0,4	28,2	28,6	2%	1758	-325	3442
203,15	203	1,60	527,4	0,0	0,0	34,0	0,0	37,5	337,8	1318,0	2254,7	1334,0	15,6	219,4	5124	860	0,4	38,1	38,5	1%	2407	152	5601

PEZA 2014-15 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
501,01	501	0,88	392,0	67,2	33,6	0,0	0,0	61,7	0,0	56,8	611,3	22,5	181,6	324,8	4965	1045	4,5	13,1	17,7	26%	2925	2314	573
102,05	102	0,25	0,0	0,0	0,0	0,0	0,0	0,0	0,0	591,9	591,9	490,3	61,9	0,0	3157	737	1,5	13,1	14,7	11%	2062	1471	1333
104,02	104	0,14	86,8	40,1	11,0	0,0	10,9	13,2	0,0	1028,1	1190,1	678,6	368,2	0,0	4683	981	9,2	13,1	22,3	41%	2747	1557	298
104,01	104	0,17	66,2	30,6	8,4	0,0	12,2	13,2	0,0	1006,0	1136,5	517,5	505,4	0,0	3571	748	12,6	13,1	25,8	49%	2094	958	166
107,05	107	0,25	0,0	0,0	0,0	285,9	0,0	0,0	0,0	0,0	285,9	0,0	0,0	85,9	0	0	0,0	13,1	13,1	0%	0	-286	-
108,01	108	0,09	0,0	0,0	0,0	308,1	0,0	0,0	0,0	0,0	308,1	0,0	0,0	85,9	0	0	0,0	13,1	13,1	0%	0	-308	-
120,13	120	0,09	78,6	0,0	0,0	196,9	0,0	0,0	0,0	0,0	275,4	26,2	34,9	28,1	0	0	0,9	13,1	14,0	6%	0	-275	-32
504,05	504	0,23	41,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	41,9	0,0	38,5	0,0	0	0	1,0	13,1	14,1	7%	0	-42	0
117,19	117	0,13	0,0	188,9	17,2	0,0	10,9	0,0	0,0	1189,3	1406,2	923,1	385,4	0,0	9708	1952	9,6	13,1	22,8	42%	5464	4058	567
117,21	117	0,32	47,8	319,8	29,1	0,0	18,8	0,0	115,8	2160,6	2691,8	1125,0	1355,7	84,6	7189	1379	33,9	13,1	47,0	72%	3862	1170	111
123,02	123	0,46	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	6107	1241	0,0	13,1	13,1	0%	3476	3476	-
505,03	505	0,24	0,0	0,0	0,0	419,3	0,0	0,0	0,0	0,0	419,3	0,0	0,0	85,9	0	0	0,0	13,1	13,1	0%	0	-419	-
506,01	506	0,25	73,9	328,3	65,7	0,0	0,0	0,0	0,0	0,0	467,8	0,0	459,6	0,0	0	0	11,5	13,1	24,6	47%	0	-468	0
128,10	128	0,11	0,0	0,0	0,0	267,7	0,0	0,0	0,0	0,0	267,7	0,0	0,0	85,9	0	0	0,0	13,1	13,1	0%	0	-268	-
507,02	507	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	0	-
508,10	508	0,43	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	0	-
142,11	142	0,17	30,5	239,6	42,2	0,0	0,0	181,2	0,0	217,3	710,7	11,6	595,9	0,0	3378	656	14,9	13,1	28,0	53%	1837	1126	123
510,03	510	0,12	0,0	0,0	0,0	585,9	0,0	115,8	0,0	0,0	701,7	81,6	0,0	85,9	8125	1382	0,0	13,1	13,1	0%	3869	3167	-
510,06	510	0,20	0,0	0,0	0,0	8,4	0,0	115,8	0,0	0,0	124,1	81,6	1,0	7,3	5030	1061	0,0	13,1	13,2	0%	2971	2847	113323
510,07	510	0,15	0,0	0,0	0,0	8,4	0,0	115,8	0,0	0,0	124,1	81,6	1,0	7,3	5075	1036	0,0	13,1	13,2	0%	2901	2777	110647
501,02	501	0,12	1629,9	59,4	41,7	0,0	0,0	61,7	0,0	1141,7	2934,5	22,5	1231,5	287,5	5948	1215	30,8	13,1	43,9	70%	3402	468	101
502,18	502	0,98	1283,0	816,3	905,4	0,0	87,2	24,4	0,0	3716,0	6832,2	2022,4	3415,0	0,0	8338	1650	85,4	13,1	98,5	87%	4619	-2213	54
502,03	502	0,76	1283,0	768,4	929,9	13,4	0,0	24,4	0,0	370,5	3389,7	1826,3	171,7	12,7	1983	407	4,3	13,1	17,4	25%	1141	-2249	263
503,02	503	2,00	0,0	161,9	51,6	0,0	0,0	58,6	68,5	0,0	340,7	131,0	121,8	31,4	3947	799	3,0	13,1	16,2	19%	2238	1897	724
503,01	503	0,62	0,0	207,2	62,7	0,0	0,0	58,6	87,7	0,0	416,2	161,5	147,7	40,1	5882	1182	3,7	13,1	16,8	22%	3309	2893	886
504,04	504	0,50	1283,0	840,0	956,0	0,0	0,0	0,0	0,0	0,0	3079,0	1740,0	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	-3079	-
123,01	123	0,65	0,0	738,5	932,3	0,0	0,0	0,0	0,0	0,0	1670,8	1638,5	0,0	0,0	4303	925	0,0	13,1	13,1	0%	2591	920	-
505,04	505	1,20	1283,0	128,5	130,4	130,4	0,0	0,0	0,0	0,0	1672,4	229,2	0,0	26,3	0	0	0,0	13,1	13,1	0%	0	-1672	-
506,10	506	0,43	1359,3	339,0	79,8	0,0	0,0	0,0	0,0	0,0	1778,0	0,0	474,6	0,0	0	0	11,9	13,1	25,0	47%	0	-1778	0
179,12	179	1,11	1283,0	85,1	36,9	0,0	0,0	0,0	0,0	0,0	1405,0	0,0	102,2	0,0	0	0	2,6	13,1	15,7	16%	0	-1405	0
179,15	179	0,74	1283,0	84,3	36,5	0,0	0,0	0,0	0,0	0,0	1403,9	0,0	101,2	0,0	0	0	2,5	13,1	15,7	16%	0	-1404	0
179,16	179	0,55	1283,0	84,3	36,5	0,0	0,0	0,0	0,0	0,0	1403,8	0,0	101,1	0,0	0	0	2,5	13,1	15,7	16%	0	-1404	0
179,20	179	1,21	1283,0	55,3	23,9	0,0	0,0	0,0	0,0	0,0	1362,2	0,0	66,3	0,0	0	0	1,7	13,1	14,8	11%	0	-1362	0
507,08	507	0,53	1283,0	226,4	90,6	0,0	0,0	0,0	0,0	0,0	1600,0	297,2	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	-1600	-
507,09	507	0,21	1283,0	142,9	76,2	0,0	0,0	0,0	0,0	0,0	1502,1	202,4	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	-1502	-
141,01	141	0,78	1283,0	118,8	82,9	0,0	0,0	0,0	0,0	0,0	1484,8	0,0	158,4	0,0	0	0	4,0	13,1	17,1	23%	0	-1485	0
509,06	509	0,53	45,0	950,9	939,6	0,0	22,1	0,0	0,0	0,0	1957,7	1850,9	52,8	0,0	0	0	1,3	13,1	14,4	9%	0	-1958	0
142,12	142	0,27	1321,4	153,6	44,8	0,0	0,0	181,2	0,0	246,6	1947,6	212,4	377,6	0,0	4106	883	9,4	13,1	22,6	42%	2472	524	262
510,04	510	0,15	1330,0	1093,3	946,7	8,4	90,0	115,8	0,0	0,0	3584,2	2075,0	121,2	7,3	3360	700	3,0	13,1	16,2	19%	1960	-1624	644
510,02	510	0,61	26,8	623,0	911,5	8,4	0,0	115,8	0,0	0,0	1685,3	1604,6	23,9	7,3	5321	1050	0,6	13,1	13,7	4%	2940	1254	4898

NILEAS 2014-15 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
8,02	8	0,40	234,3	143,7	138,8	39,1	0,0	0,0	0,0	116,4	672,4	295,0	72,4	245,6	1820	356	1,8	8,4	10,2	18%	996	323	415
41,04	41	0,50	0,0	0,0	0,0	0,0	0,0	0,0	0,0	447,0	447,0	120,0	303,0	0,0	4372	950	7,6	3,4	11,0	69%	2660	2213	351
43,02	43	0,56	0,0	187,5	0,0	0,0	28,4	139,6	0,0	1319,9	1675,4	924,3	611,2	19,8	10357	1841	15,3	26,4	41,7	37%	5154	3478	336
30,01	30	0,45	0,0	0,0	0,0	0,0	0,0	0,0	0,0	278,0	278,0	233,3	33,3	0,0	4000	689	0,8	6,7	7,5	11%	1929	1651	2315
23,01	23	0,70	291,4	0,0	0,0	71,4	57,9	82,1	0,0	334,8	837,6	292,9	87,4	308,2	12346	2129	2,2	8,4	10,6	21%	5960	5122	2586
55,05	55	0,81	0,0	148,1	24,7	8,6	0,0	0,0	0,0	514,4	695,9	304,5	344,8	7,4	8030	1059	8,6	8,7	17,3	50%	2965	2270	343
17,03	17	0,99	0,0	127,5	166,5	181,8	0,0	0,0	0,0	403,2	879,0	242,4	353,9	0,0	6273	1134	8,8	6,9	15,8	56%	3174	2295	359
20,02	20	1,01	599,5	0,0	0,0	204,4	0,0	0,0	0,0	419,3	1223,2	483,3	194,6	532,6	4693	772	4,9	13,8	18,7	26%	2162	939	335
23,02	23	1,80	276,3	177,8	11,1	55,6	87,5	69,4	0,0	1790,2	2467,9	702,8	1282,5	289,5	17754	3085	32,1	20,1	52,1	61%	8638	6170	260
48,01	48	1,90	0,0	0,0	0,0	125,5	0,0	0,0	0,0	231,6	357,1	221,1	0,0	0,0	1992	349	0,0	6,3	6,3	0%	977	620	-
27,03	27	0,40	382,9	100,0	0,0	150,0	0,0	0,0	125,0	1272,2	2030,1	1200,0	385,3	340,0	13375	2105	9,6	34,3	43,9	22%	5894	3864	577
10,02	10	0,45	0,0	62,7	15,7	9,8	0,0	0,0	483,3	862,9	1434,5	780,7	125,6	9,3	8783	1791	3,1	22,3	25,4	12%	5014	3579	1594
59,05	59	0,46	217,1	87,0	10,9	0,0	42,4	78,0	29,3	260,3	725,0	173,9	228,5	226,0	8261	1622	5,7	5,0	10,7	53%	4541	3816	755
10,05	10	0,53	0,0	99,4	24,9	9,8	0,0	0,0	410,4	1331,8	1876,3	1191,6	188,0	9,3	13901	2908	4,7	34,0	38,7	12%	8141	6265	1730
17,07	17	0,69	0,0	58,0	58,0	144,9	0,0	0,0	0,0	33,4	294,3	24,2	121,8	0,0	449	77	3,0	0,7	3,7	82%	216	-78	71
17,10	17	0,80	0,0	100,0	100,0	200,0	0,0	0,0	0,0	239,8	639,8	126,3	285,9	0,0	3463	635	7,1	3,6	10,8	66%	1777	1137	249
180,11	180	0,82	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
180,06	180	0,99	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
98,02	98	1,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	774,5	774,5	410,0	221,5	0,0	13150	2623	5,5	11,7	17,3	32%	7344	6570	1326
8,04	8	2,00	256,5	83,1	163,6	43,0	0,0	0,0	80,0	825,8	1452,0	682,5	367,7	270,8	12798	2006	9,2	19,5	28,7	32%	5615	4163	581
40,04	40	0,86	415,1	0,1	20,9	23,3	0,0	0,0	0,0	182,7	642,1	0,0	166,0	20,9	1895	328	4,1	0,0	4,1	100%	917	275	216
58,01	58	1,10	439,6	116,2	36,7	0,0	59,1	76,0	0,0	561,6	1289,2	593,7	125,9	73,3	10287	1800	3,1	17,0	20,1	16%	5041	3752	1578
200,01	200	1,10	924,5	174,3	69,0	189,1	0,0	249,3	0,0	1842,4	3448,6	2254,3	0,0	505,6	8756	1445	0,0	64,4	64,4	0%	4047	599	-
41,03	41	1,27	281,1	6,1	30,7	0,0	0,0	0,0	0,0	491,4	809,3	212,6	267,0	0,0	4843	957	6,7	6,1	12,7	52%	2679	1869	401
73,02	73	1,30	392,3	166,3	43,8	16,1	0,0	0,0	0,0	768,6	1387,1	300,0	580,4	15,8	10789	1868	14,5	8,6	23,1	63%	5232	3845	359
8,01	8	2,20	754,1	181,7	172,1	31,5	0,0	0,0	0,0	130,2	1269,6	346,2	84,9	297,9	2128	425	2,1	9,9	12,0	18%	1190	-80	420
21,01	21	3,00	187,0	109,3	39,7	118,9	0,0	0,0	0,0	532,1	987,0	327,9	289,6	2,3	3714	779	7,2	9,4	16,6	44%	2182	1195	301
211,01	211	1,30	274,6	9,0	14,6	0,0	0,0	0,0	0,0	0,0	298,3	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-298	-
30,04	30	4,37	163,4	2,5	5,8	0,0	0,0	0,0	0,0	1007,8	1179,5	480,5	502,0	0,0	8222	1537	12,6	13,7	26,3	48%	4304	3124	343
10,03	10	0,53	192,5	8,8	15,8	9,8	0,0	0,0	0,0	999,3	1226,2	765,6	169,1	9,3	9443	1936	4,2	21,9	26,1	16%	5420	4194	1280
180,10	180	0,80	255,0	2,0	21,0	0,0	0,0	0,0	0,0	0,0	278,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-278	-
10,04	10	1,00	357,0	92,5	21,2	9,8	0,0	0,0	0,0	0,0	480,5	84,7	11,1	9,3	0	0	0,3	2,4	2,7	10%	0	-480	-34
27,04	27	1,20	488,9	73,2	6,7	150,0	0,0	0,0	41,7	650,0	1410,5	500,0	394,0	170,0	4125	913	9,9	14,3	24,1	41%	2557	1147	242
180,08	180	1,50	272,0	3,1	22,4	0,0	0,0	0,0	0,0	0,0	297,5	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	-298	-
59,01	59	2,06	437,3	100,9	28,4	0,0	115,9	104,6	47,6	870,3	1704,9	359,2	721,5	213,8	10073	1801	18,0	10,3	28,3	64%	5043	3338	268
8,03	8	3,50	754,6	202,3	158,4	41,4	0,0	0,0	68,6	933,0	2158,4	772,9	502,8	325,7	10279	1702	12,6	22,1	34,7	36%	4765	2606	353
55,03	55	3,78	202,4	214,7	48,4	6,1	0,0	13,8	0,0	550,4	1035,8	143,6	638,2	56,1	3847	535	16,0	4,1	20,1	80%	1499	463	90
17,04	17	1,52	335,5	163,0	96,8	197,4	0,0	0,0	0,0	1015,1	1807,8	604,4	513,7	0,0	13397	2497	12,8	17,3	30,1	43%	6990	5182	544
12,01	12	0,87	351,7	96,4	25,9	26,4	0,0	30,3	120,7	977,0	1628,5	183,9	861,8	47,3	6782	1317	21,5	5,3	26,8	80%	3688	2060	169
44,01	44	0,60	510,0	289,8	263,3	258,8	0,0	56,0	0,0	704,8	2082,8	900,0	271,4	6,0	4450	458	6,8	25,7	32,5	21%	1283	-799	188

MERABELLO 2015-16 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / day of work
103,04	103	0,20	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1850,1	1850,1	1850,1	0,0	0,0	5775	1233	0,0	52,9	52,9	0%	3454	1603	-
234,14	234	0,20	215,6	0,0	0,0	0,0	0,0	28,9	0,0	2405,0	2649,6	2405,0	68,4	157,8	9877	1603	1,7	68,7	70,4	2%	4489	1840	2534
222,04	222	0,08	0,0	0,0	0,0	0,0	0,0	0,0	0,0	735,3	735,3	397,1	282,4	0,0	7500	1667	7,1	11,3	18,4	38%	4667	3931	661
103,06	103	0,10	0,0	0,0	0,0	18,5	0,0	0,0	0,0	291,9	310,4	291,9	2,5	16,0	900	195	0,1	8,3	8,4	1%	545	234	8462
103,09	103	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	864,6	864,6	864,6	0,0	0,0	2653	576	0,0	24,7	24,7	0%	1614	749	-
209,02	209	0,15	448,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	448,7	0,0	52,7	389,3	0	0	1,3	0,0	1,3	100%	0	-449	-295
234,15	234	0,30	171,0	0,0	0,0	0,0	0,0	28,9	0,0	899,3	1099,3	899,3	60,7	122,3	2752	600	1,5	25,7	27,2	6%	1679	579	1026
233,07	233	0,23	0,0	0,0	0,0	15,0	0,0	0,0	0,0	468,3	483,3	0,0	401,1	13,9	383	65	10,0	0,0	10,0	100%	183	-301	17
238,02	238	0,46	53,6	0,0	0,0	17,4	0,0	499,6	0,0	503,8	1074,3	503,8	421,3	58,9	1374	336	10,5	14,4	24,9	42%	940	-134	84
136,03	136	2,00	0,0	83,8	60,0	0,0	0,0	0,0	0,0	743,3	887,1	200,0	640,0	0,0	2500	600	16,0	5,7	21,7	74%	1680	793	105
206,02	206	0,04	347,2	329,3	214,1	3,3	0,0	0,0	376,0	1499,5	2769,4	1241,5	840,5	414,6	11500	2018	21,0	35,5	56,5	37%	5649	2880	249
203,10	203	0,40	0,0	75,0	25,0	0,0	0,0	87,9	57,6	1704,1	1949,6	1817,9	37,5	19,0	5497	1099	0,9	51,9	52,9	2%	3078	1129	3263
222,08	222	0,05	0,0	0,0	0,0	0,0	0,0	183,3	0,0	0,0	183,3	80,0	53,3	26,0	0	0	1,3	2,3	3,6	37%	0	-183	-20
101,03	101	0,10	254,6	0,0	0,0	1000,0	0,0	0,0	57,5	766,0	2078,1	750,0	37,5	266,4	2500	500	0,9	21,4	22,4	4%	1400	-678	1209
232,07	232	0,14	292,3	0,0	0,0	0,0	0,0	0,0	285,7	1390,5	1968,5	0,0	1538,0	316,2	1437	276	38,5	0,0	38,5	100%	774	-1195	12
232,10	232	0,19	115,4	210,5	105,3	0,0	0,0	0,0	178,9	0,0	610,2	0,0	449,7	128,9	0	0	11,2	0,0	11,2	100%	0	-610	-11
206,08	206	0,26	107,3	142,8	92,8	0,0	0,0	0,0	93,1	0,0	436,0	70,0	209,8	136,5	0	0	5,2	2,0	7,2	72%	0	-436	-26
233,02	233	0,30	1100,0	400,0	266,7	316,7	0,0	0,0	162,0	435,7	2681,0	266,7	1266,7	1072,0	323	77	31,7	7,6	39,3	81%	215	-2466	-27
233,04	233	0,35	0,0	342,9	457,1	0,0	0,0	0,0	97,1	0,0	897,1	0,0	828,6	51,4	0	0	20,7	0,0	20,7	100%	0	-897	-2
203,11	203	1,00	155,3	0,0	0,0	0,0	0,0	0,0	75,3	1646,5	1877,0	1579,5	15,0	145,3	5232	1046	0,4	45,1	45,5	1%	2930	1053	7425
206,10	206	0,18	531,4	4,5	0,0	136,2	0,0	0,0	0,0	421,0	1093,0	234,4	159,5	145,0	2300	404	4,0	6,7	10,7	37%	1130	37	247
240,01	240	0,15	435,8	9,0	0,0	136,2	0,0	0,0	796,0	4060,0	5437,0	0,0	4277,8	954,1	7867	1433	106,9	0,0	106,9	100%	4013	-1424	29
234,11	234	0,45	536,0	5,8	0,0	136,2	0,0	28,9	0,0	1729,2	2436,2	1729,2	97,6	143,0	4196	1153	2,4	49,4	51,8	5%	3228	792	1264
166,07	166	0,47	268,5	2,8	0,0	136,2	0,0	0,0	0,0	919,8	1327,3	919,8	0,0	0,0	2846	613	0,0	26,3	26,3	0%	1717	390	-
209,01	209	0,60	318,5	8,0	0,0	136,2	0,0	0,0	0,0	0,0	462,6	0,0	53,5	258,3	0	0	1,3	0,0	1,3	100%	0	-463	-193
238,05	238	0,65	302,8	3,0	0,0	136,2	0,0	95,3	0,0	1341,3	1878,5	1341,3	68,8	43,0	3895	894	1,7	38,3	40,0	4%	2504	625	1431
136,02	136	0,80	255,7	8,0	0,0	136,2	0,0	0,0	0,0	734,1	1133,9	200,0	480,0	0,0	3125	750	12,0	5,7	17,7	68%	2100	966	175
234,04	234	0,80	419,3	3,5	0,0	136,2	0,0	28,9	0,0	265,0	852,9	265,0	65,5	90,5	811	177	1,6	7,6	9,2	18%	495	-358	247
234,06	234	1,40	273,3	0,4	0,0	136,2	0,0	28,9	0,0	55,1	493,9	55,1	23,5	12,5	168	37	0,6	1,6	2,2	27%	103	-391	154
234,08	234	0,20	502,2	5,2	0,0	136,2	0,0	28,9	0,0	770,8	1443,4	770,8	89,2	128,1	2359	514	2,2	22,0	24,3	9%	1439	-5	588
222,07	222	0,05	451,9	6,7	0,0	136,2	0,0	183,3	0,0	644,7	1422,9	397,6	335,7	26,0	6000	1333	8,4	11,4	19,8	42%	3733	2310	442
206,09	206	0,16	375,0	8,3	0,0	142,5	0,0	0,0	174,3	0,0	700,0	0,0	61,5	103,4	0	0	1,5	0,0	1,5	100%	0	-700	-67
206,12	206	0,20	705,4	9,4	0,0	136,2	0,0	0,0	178,2	439,6	1468,9	211,5	280,4	422,1	1840	323	7,0	6,0	13,1	54%	904	-565	69
175,03	175	0,21	630,8	7,5	0,0	136,2	0,0	0,0	125,7	0,0	900,1	0,0	77,4	396,1	0	0	1,9	0,0	1,9	100%	0	-900	-205
180,01	180	0,25	523,4	9,4	0,0	136,2	0,0	0,0	658,8	4040,0	5367,8	0,0	4200,0	205,8	1804	480	105,0	0,0	105,0	100%	1344	-4024	11
203,16	203	0,40	131,3	8,6	0,0	136,2	0,0	0,0	52,6	0,0	328,7	10,3	37,5	121,1	0	0	0,9	0,3	1,2	76%	0	-329	-129
233,03	233	0,40	301,9	6,7	0,0	136,2	0,0	0,0	265,0	0,0	709,8	0,0	75,0	145,0	0	0	1,9	0,0	1,9	100%	0	-710	-77
203,14	203	0,80	106,9	8,4	0,0	136,2	0,0	87,9	380,7	1306,0	2026,1	1329,9	18,8	476,3	4170	834	0,5	38,0	38,5	1%	2335	309	3966
203,17	203	1,40	197,0	7,6	0,0	136,2	0,0	87,9	60,2	853,8	1342,6	891,4	10,7	205,9	2708	542	0,3	25,5	25,7	1%	1516	174	4893
203,15	203	1,60	173,3	7,4	0,0	136,2	0,0	0,0	46,4	0,0	363,3	9,8	9,4	163,5	0	0	0,2	0,3	0,5	45%	0	-363	-698

PEZA 2015-16 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer''s own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
501,01	501	0,88	222,1	0,0	0,0	18,2	0,0	51,7	152,0	119,3	563,2	0,0	61,7	296,7	7386	1307	1,5	13,1	14,7	11%	3659	3096	2180
102,05	102	0,25	0,0	700,0	160,0	214,0	0,0	0,0	0,0	380,7	1454,7	0,0	1072,7	54,0	3582	791	26,8	13,1	39,9	67%	2215	761	81
104,02	104	0,14	360,5	0,0	0,0	0,0	70,5	0,0	0,0	0,0	431,0	0,0	37,1	610,2	0	0	0,9	13,1	14,1	7%	0	-431	-657
104,01	104	0,17	284,1	0,0	0,0	0,0	66,7	0,0	0,0	0,0	350,7	0,0	37,6	487,9	0	0	0,9	13,1	14,1	7%	0	-351	-518
107,05	107	0,25	481,0	160,0	80,0	0,0	206,0	0,0	0,0	530,6	1457,6	120,0	760,6	477,0	3120	568	19,0	13,1	32,1	59%	1590	133	59
108,01	108	0,09	524,4	666,7	222,2	222,2	0,0	0,0	0,0	580,0	2215,6	0,0	1480,0	413,3	5333	511	37,0	13,1	50,1	74%	1431	-784	28
120,13	120	0,09	0,0	0,0	0,0	444,4	0,0	268,0	0,0	1416,7	2129,1	888,9	666,7	29,1	14950	2744	16,7	13,1	29,8	56%	7684	5555	459
504,05	504	0,23	394,3	173,9	108,7	53,3	0,0	243,9	0,0	2751,4	3725,5	108,7	2896,8	615,7	9526	1464	72,4	13,1	85,5	85%	4099	373	48
117,19	117	0,13	0,0	187,6	44,7	0,0	54,3	0,0	0,0	654,0	940,6	660,2	183,0	40,0	6038	1177	4,6	13,1	17,7	26%	3295	2355	712
117,21	117	0,32	0,0	317,5	75,6	0,0	60,7	0,0	200,4	531,2	1185,4	575,5	344,3	124,6	4904	957	8,6	13,1	21,7	40%	2679	1494	297
123,02	123	0,46	0,0	173,9	80,4	41,0	0,0	46,4	0,0	645,7	987,4	130,4	714,1	64,5	3313	628	17,9	13,1	31,0	58%	1759	772	95
505,03	505	0,24	0,0	333,3	166,7	43,8	0,0	0,0	0,0	845,7	1389,4	0,0	1197,7	41,7	5849	953	29,9	13,1	43,1	70%	2667	1278	88
506,01	506	0,25	0,0	640,0	160,0	200,0	0,0	0,0	0,0	0,0	1000,0	0,0	800,0	0,0	0	0	20,0	13,1	33,1	60%	0	-1000	0
128,10	128	0,11	338,7	181,8	181,8	0,0	0,0	0,0	0,0	758,2	1460,5	0,0	1049,1	293,2	4015	718	26,2	13,1	39,4	67%	2011	550	65
507,02	507	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2483,6	2483,6	0,0	2363,6	0,0	8389	3507	59,1	13,1	72,2	82%	9819	7335	166
508,10	508	0,43	0,0	139,5	46,5	0,0	39,4	0,0	0,0	550,8	776,2	0,0	734,4	20,9	1321	255	18,4	13,1	31,5	58%	714	-63	38
142,11	142	0,17	594,1	156,9	28,4	0,0	0,0	73,9	64,0	701,8	1619,1	529,4	351,0	585,5	6353	835	8,8	13,1	21,9	40%	2339	720	200
510,03	510	0,12	375,0	0,0	0,0	87,5	0,0	2448,8	0,0	0,0	2911,3	0,0	45,0	2856,5	0	0	1,1	13,1	14,3	8%	0	-2911	-2538
510,06	510	0,20	570,1	0,0	0,0	52,5	0,0	2448,8	0,0	711,7	3783,0	0,0	731,7	2989,1	4378	746	18,3	13,1	31,4	58%	2089	-1694	-49
510,07	510	0,15	491,3	0,0	0,0	133,3	0,0	60,9	0,0	460,0	1145,6	0,0	479,2	586,7	6834	1213	12,0	13,1	25,1	48%	3395	2250	234
501,02	501	0,12	196,5	333,3	0,0	0,0	72,5	49,2	0,0	1212,5	1864,0	0,0	1465,9	218,4	5833	1167	36,6	13,1	49,8	74%	3267	1403	83
502,18	502	0,98	2392,9	0,0	0,0	0,0	91,2	25,7	0,0	1345,6	3855,4	11,5	1369,1	54,4	2890	618	34,2	13,1	47,4	72%	1732	-2124	49
502,03	502	0,76	1231,5	0,0	0,0	259,9	0,0	25,7	0,0	44,8	1561,8	11,5	73,5	67,7	1244	280	1,8	13,1	15,0	12%	785	-777	390
503,02	503	2,00	1201,2	161,9	39,6	0,0	124,5	83,1	68,5	1602,8	3281,7	131,0	1722,7	121,8	7673	2427	43,1	13,1	56,2	77%	6797	3515	155
503,01	503	0,62	1201,2	207,2	50,7	0,0	84,1	83,1	87,7	242,1	1956,1	161,5	347,5	130,6	9818	2427	8,7	13,1	21,8	40%	6797	4840	767
504,04	504	0,50	1796,3	0,0	0,0	200,0	124,0	120,2	0,0	867,2	3107,7	0,0	868,9	723,7	10239	1860	21,7	13,1	34,8	62%	5208	2100	206
123,01	123	0,65	2392,9	212,3	21,5	241,0	0,0	41,7	0,0	124,6	3034,0	76,9	250,8	57,5	1863	350	6,3	13,1	19,4	32%	980	-2054	147
505,04	505	1,20	2392,9	200,0	6,3	235,0	0,0	0,0	0,0	1044,6	3878,8	0,0	1192,5	33,3	3182	589	29,8	13,1	42,9	69%	1650	-2228	54
506,10	506	0,43	1201,2	0,0	0,0	432,6	0,0	0,0	0,0	40,3	1674,1	0,0	33,3	0,0	350	81	0,8	13,1	14,0	6%	228	-1446	273
179,12	179	1,11	0,0	468,5	48,6	245,6	0,0	0,0	0,0	0,0	762,7	0,0	482,5	45,0	0	0	12,1	13,1	25,2	48%	0	-763	-4
179,15	179	0,74	0,0	432,4	50,0	268,4	0,0	0,0	0,0	0,0	750,8	0,0	446,8	67,6	0	0	11,2	13,1	24,3	46%	0	-751	-6
179,16	179	0,55	1201,2	436,4	89,1	255,2	0,0	0,0	0,0	0,0	1981,9	0,0	455,2	54,5	0	0	11,4	13,1	24,5	46%	0	-1982	-5
179,20	179	1,21	0,0	495,9	32,2	250,2	0,0	0,0	0,0	0,0	778,3	0,0	508,9	49,6	0	0	12,7	13,1	25,8	49%	0	-778	-4
507,08	507	0,53	2392,9	0,0	0,0	0,0	0,0	0,0	0,0	177,1	2569,9	0,0	148,8	0,0	3284	324	3,7	13,1	16,8	22%	906	-1664	244
507,09	507	0,21	2392,9	0,0	0,0	0,0	0,0	0,0	0,0	264,5	2657,4	0,0	226,4	0,0	5061	974	5,7	13,1	18,8	30%	2727	69	482
141,01	141	0,78	0,0	461,5	47,4	64,9	0,0	0,0	0,0	0,0	573,9	0,0	475,2	64,1	0	0	11,9	13,1	25,0	48%	0	-574	-5
509,06	509	0,53	1999,1	301,9	0,0	200,0	191,9	0,0	0,0	364,3	3057,2	0,0	701,9	854,5	1887	283	17,5	13,1	30,7	57%	792	-2265	-4
142,12	142	0,27	1950,8	493,8	35,8	200,0	0,0	73,9	64,0	800,9	3619,2	555,6	761,8	726,0	10789	1741	19,0	13,1	32,2	59%	4875	1256	218
510,04	510	0,15	2962,4	0,0	0,0	70,0	0,0	60,9	0,0	0,0	3093,3	0,0	75,9	604,8	0	0	1,9	13,1	15,0	13%	0	-3093	-319
510,02	510	0,61	2727,9	0,0	0,0	217,2	0,0	2448,8	0,0	1644,3	7038,2	0,0	1667,8	2721,1	2302	565	41,7	13,1	54,8	76%	1582	-5456	-27

NILEAS 2015-16 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
8,02	8	0,40	225,6	158,0	50,0	42,3	0,0	0,0	0,0	0,0	475,9	195,0	65,4	200,0	0	0	1,6	5,6	7,2	23%	0	-476	-122
41,04	41	0,50	266,8	0,0	0,0	25,5	0,0	0,0	0,0	1138,9	1431,2	517,5	559,7	274,4	14266	2444	14,0	14,8	28,8	49%	6843	5411	469
43,02	43	0,56	352,8	159,2	9,7	112,1	51,9	77,7	0,0	1799,6	2563,0	1125,2	909,8	303,9	17607	3111	22,7	32,1	54,9	41%	8710	6147	370
30,01	30	0,45	0,0	155,6	44,4	45,0	0,0	0,0	0,0	559,3	804,3	622,2	111,7	44,4	6702	1151	2,8	17,8	20,6	14%	3223	2419	1139
23,01	23	0,70	158,1	0,0	0,0	200,0	56,7	62,0	0,0	141,0	617,7	8,9	200,7	172,7	9363	1967	5,0	0,3	5,3	95%	5508	4890	1064
55,05	55	0,81	76,8	0,0	0,0	13,5	0,0	0,0	0,0	0,0	90,3	0,0	13,4	74,8	0	0	0,3	0,0	0,3	100%	0	-90	-223
17,03	17	0,99	0,0	0,0	0,0	23,6	0,0	0,0	0,0	311,2	334,8	202,2	75,7	23,0	3388	626	1,9	5,8	7,7	25%	1753	1418	914
20,02	20	1,01	49,2	0,0	0,0	81,7	0,0	0,0	0,0	400,3	531,2	339,2	130,9	47,4	2495	406	3,3	9,7	13,0	25%	1137	605	333
23,02	23	1,80	307,4	0,0	0,0	200,0	80,4	56,2	0,0	2723,5	3367,6	1313,9	1145,2	299,6	13823	2409	28,6	37,5	66,2	43%	6746	3379	225
48,01	48	1,90	0,0	0,0	0,0	0,0	0,0	0,0	0,0	426,1	426,1	306,5	0,0	0,0	3937	710	0,0	8,8	8,8	0%	1988	1562	-
27,03	27	0,40	826,1	216,7	44,4	200,7	0,0	58,0	186,2	1304,7	2836,8	1317,0	478,2	846,5	14170	2563	12,0	37,6	49,6	24%	7175	4338	529
10,02	10	0,45	0,0	88,9	147,8	35,5	0,0	90,5	0,0	564,9	927,6	570,0	239,9	95,0	5556	871	6,0	16,3	22,3	27%	2439	1511	391
59,05	59	0,46	160,9	0,0	0,0	0,0	10,5	121,0	15,2	310,4	618,0	217,4	114,2	200,6	6413	1172	2,9	6,2	9,1	31%	3281	2663	1079
10,05	10	0,53	0,0	150,9	217,9	35,3	0,0	76,9	128,3	1084,7	1694,0	1104,7	351,5	85,9	10189	1617	8,8	31,6	40,4	22%	4528	2834	505
17,07	17	0,69	0,0	0,0	0,0	23,4	0,0	0,0	0,0	85,7	109,1	50,7	26,7	23,0	1000	207	0,7	1,4	2,1	32%	580	471	836
17,10	17	0,80	0,0	0,0	0,0	23,7	0,0	0,0	124,1	451,3	599,0	237,5	191,6	23,0	5363	1064	4,8	6,8	11,6	41%	2979	2379	617
180,11	180	0,82	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
180,06	180	0,99	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
98,02	98	1,32	258,2	303,0	60,6	38,3	0,0	90,0	0,0	672,8	1422,9	0,0	865,4	312,3	13773	2681	21,6	0,0	21,6	100%	7507	6084	333
8,04	8	2,00	225,6	263,2	52,5	12,4	0,0	0,0	22,0	746,9	1322,5	692,5	338,3	195,0	6463	1052	8,5	19,8	28,2	30%	2945	1623	325
40,04	40	0,86	620,0	5,6	0,0	132,6	0,0	0,0	0,0	1256,7	2014,9	883,7	414,0	163,1	14181	2229	10,4	25,2	35,6	29%	6241	4227	587
58,01	58	1,10	409,1	6,5	0,0	29,1	42,2	86,0	0,0	872,7	1445,6	843,0	52,7	33,6	12000	2182	1,3	24,1	25,4	5%	6109	4664	4615
200,01	200	1,10	454,5	5,8	0,0	87,3	0,0	0,0	0,0	0,0	547,6	0,0	5,5	0,0	0	0	0,1	0,0	0,1	100%	0	-548	0
41,03	41	1,27	656,7	129,8	0,0	37,8	0,0	0,0	0,0	878,0	1702,2	378,9	631,3	300,2	7332	1242	15,8	10,8	26,6	59%	3477	1775	201
73,02	73	1,30	566,8	165,3	0,0	92,2	0,0	0,0	0,0	1583,7	2408,0	696,5	1017,7	165,9	13476	2461	25,4	19,9	45,3	56%	6891	4483	264
8,01	8	2,20	575,4	161,8	47,7	102,2	0,0	0,0	0,0	563,8	1450,9	578,9	203,5	116,3	6736	1091	5,1	16,5	21,6	24%	3055	1604	578
21,01	21	3,00	183,3	2,7	0,0	26,7	0,0	0,0	0,0	599,7	812,3	383,3	167,3	0,0	4667	840	4,2	11,0	15,1	28%	2351	1539	562
211,01	211	1,30	269,2	4,9	0,0	61,5	0,0	0,0	0,0	0,0	335,7	0,0	3,8	0,0	0	0	0,1	0,0	0,1	100%	0	-336	0
30,04	30	4,37	174,1	56,8	1,1	56,2	0,0	0,0	0,0	989,9	1278,0	635,0	379,1	32,6	6884	1181	9,5	18,1	27,6	34%	3306	2028	345
10,03	10	0,53	188,7	78,5	153,9	156,2	0,0	76,9	256,6	783,8	1694,6	738,8	302,1	85,9	8302	1426	7,6	21,1	28,7	26%	3994	2299	518
180,10	180	0,80	250,0	8,0	0,0	100,0	0,0	0,0	0,0	0,0	358,0	0,0	6,3	0,0	0	0	0,2	0,0	0,2	100%	0	-358	0
10,04	10	1,00	350,0	320,0	179,5	115,3	0,0	81,5	68,0	1127,2	2241,5	969,5	664,2	89,0	12280	1930	16,6	27,7	44,3	37%	5404	3163	320
27,04	27	1,20	787,3	148,4	29,6	267,3	0,0	77,3	62,1	872,5	2244,6	711,4	557,4	553,9	7853	1133	13,9	20,3	34,3	41%	3173	929	188
180,08	180	1,50	266,7	4,3	0,0	53,3	0,0	0,0	0,0	0,0	324,3	0,0	3,3	0,0	0	0	0,1	0,0	0,1	100%	0	-324	0
59,01	59	2,06	431,4	3,1	0,0	46,6	94,7	82,3	41,3	901,8	1601,1	388,3	579,4	231,7	11354	1875	14,5	11,1	25,6	57%	5249	3648	346
8,03	8	3,50	710,8	136,7	50,0	67,1	0,0	0,0	12,6	1092,6	2069,7	739,5	531,4	238,9	8839	1308	13,3	21,1	34,4	39%	3662	1593	258
55,03	55	3,78	178,7	2,1	0,0	13,5	0,0	33,3	0,0	0,0	227,7	0,0	33,1	193,3	4602	842	0,8	0,0	0,8	100%	2356	2129	2614
17,04	17	1,52	328,9	5,3	0,0	75,8	0,0	0,0	78,5	609,8	1098,2	322,4	242,1	23,0	8382	1428	6,1	9,2	15,3	40%	3999	2901	657
12,01	12	0,87	499,3	5,5	0,0	250,0	0,0	0,0	63,2	1067,4	1885,5	275,9	759,5	252,0	8828	1499	19,0	7,9	26,9	71%	4197	2311	208
44,01	44	0,60	921,6	5,3	0,0	400,8	0,0	56,0	0,0	1742,3	3126,0	1432,4	272,2	299,2	13020	2167	6,8	40,9	47,7	14%	6067	2941	847

MERABELLO 2016-17 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	**Fertilization cost € / Ha**	**Pruning cost € / Ha**	**Pruned wood management cost € / Ha**	**Soil management cost € / Ha**	**Chemical weed control cost € / Ha**	**Plant protection cost € / Ha**	**Irigation cost € / Ha**	**Harvesting cost € / Ha**	**Sum of all cost elements € / Ha**	**Labor cost (LC) € / Ha**	**Farmer's own time cost € / Ha**	**Inputs cost € / Ha**	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmerr's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
103,04	103	0,20	0,0	125,0	75,0	0,0	0,0	0,0	0,0	0,0	200,0	200,0	0,0	0,0	0	0	0,0	5,0	5,0	0%	0	-200	-
234,14	234	0,20	0,0	330,0	110,0	0,0	0,0	135,5	0,0	656,3	1231,8	1096,3	66,0	28,3	375	83	1,7	27,4	29,1	6%	233	-998	124
222,04	222	0,08	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
103,06	103	0,10	0,0	0,0	0,0	0,0	0,0	0,0	0,0	626,3	626,3	626,3	0,0	0,0	1670	418	0,0	19,6	19,6	0%	1169	543	-
103,09	103	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
209,02	209	0,15	0,0	0,0	0,0	240,0	0,0	0,0	0,0	600,0	840,0	0,0	733,3	40,0	4800	1200	18,3	0,0	18,3	100%	3360	2520	181
234,15	234	0,30	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
233,07	233	0,23	0,0	173,9	0,0	0,0	0,0	0,0	0,0	497,8	671,7	173,9	434,8	0,0	1304	304	10,9	3,3	14,2	77%	852	180	78
238,02	238	0,46	50,9	407,6	173,9	0,0	0,0	20,6	0,0	0,0	653,0	391,3	205,0	28,7	0	0	5,1	9,8	14,9	34%	0	-653	-6
136,03	136	2,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	260,0	260,0	0,0	237,8	0,0	386	119	5,9	0,0	5,9	100%	333	73	56
206,02	206	0,04	316,1	1348,7	126,4	0,0	0,0	0,0	1568,8	1721,9	5081,8	878,5	3517,2	568,8	3300	538	87,9	7,7	95,6	92%	1506	-3576	11
203,10	203	0,40	342,0	0,0	0,0	0,0	0,0	177,3	198,0	895,2	1612,5	385,9	658,2	490,8	4575	1271	16,5	60,0	76,4	22%	3558	1946	186
222,08	222	0,05	776,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	776,8	36,4	181,8	545,0	0	0	4,5	40,0	44,5	10%	0	-777	-120
101,03	101	0,10	452,8	0,0	0,0	0,0	0,0	0,0	67,5	3742,9	4263,2	3500,0	80,3	310,0	8000	2000	2,0	175,0	177,0	1%	5600	1337	2635
232,07	232	0,14	0,0	0,0	0,0	0,0	0,0	0,0	342,9	0,0	342,9	0,0	142,9	200,0	0	0	3,6	0,0	3,6	100%	0	-343	-56
232,10	232	0,19	0,0	0,0	0,0	0,0	0,0	0,0	440,8	0,0	440,8	0,0	210,5	230,3	0	0	5,3	0,0	5,3	100%	0	-441	-44
206,08	206	0,26	137,0	584,7	54,8	0,0	0,0	0,0	264,2	0,0	1040,8	109,6	811,7	110,4	0	0	20,3	3,2	23,5	86%	0	-1041	-5
233,02	233	0,30	291,2	400,0	133,3	0,0	0,0	0,0	318,0	395,0	1537,6	150,0	933,3	396,7	1467	323	23,3	4,3	27,7	84%	905	-632	22
233,04	233	0,35	241,2	0,0	0,0	300,0	0,0	0,0	345,7	0,0	886,9	0,0	357,1	288,6	0	0	8,9	0,0	8,9	100%	0	-887	-32
203,11	203	1,00	0,0	0,0	0,0	0,0	0,0	178,5	308,0	400,2	886,7	188,4	268,2	355,4	2440	678	6,7	8,9	15,6	43%	1898	1011	230
206,10	206	0,18	205,6	0,0	12,2	0,0	0,0	0,0	0,0	572,2	790,0	303,3	222,2	0,0	2811	458	5,6	1,4	6,9	80%	1283	493	231
240,01	240	0,15	180,0	0,0	29,3	0,0	0,0	0,0	735,3	1180,0	2124,7	0,0	1600,0	202,0	7333	1467	40,0	0,0	40,0	100%	4107	1982	98
234,11	234	0,45	162,2	0,0	0,0	0,0	0,0	48,2	0,0	194,4	404,9	194,4	27,2	4,2	111	25	0,7	14,6	15,3	4%	69	-336	95
166,07	166	0,47	397,5	0,0	14,0	0,0	0,0	0,0	0,0	126,3	537,7	126,3	0,0	0,0	404	84	0,0	3,3	3,3	0%	236	-302	-
209,01	209	0,60	166,7	0,0	25,7	0,0	0,0	0,0	0,0	303,3	495,7	0,0	266,7	0,0	2546	670	6,7	0,0	6,7	100%	1876	1380	281
238,05	238	0,65	163,1	0,0	15,2	0,0	0,0	0,0	0,0	65,1	243,4	0,0	61,5	0,0	266	58	1,5	0,0	1,5	100%	163	-81	106
136,02	136	0,80	181,3	0,0	50,9	0,0	0,0	0,0	0,0	306,5	538,6	0,0	280,2	0,0	455	140	7,0	0,0	7,0	100%	392	-146	56
234,04	234	0,80	161,3	0,0	0,0	0,0	0,0	44,1	0,0	3718,8	3924,1	3718,8	20,5	10,5	2125	472	0,5	93,0	93,5	1%	1322	-2602	2560
234,06	234	1,40	15,7	0,0	0,0	0,0	0,0	22,9	0,0	500,0	538,6	500,0	10,8	5,2	286	63	0,3	21,9	22,1	1%	178	-361	639
234,08	234	0,20	200,0	0,0	0,0	0,0	0,0	148,6	0,0	4375,0	4723,6	4375,0	74,0	27,8	2500	556	1,9	15,6	17,5	11%	1556	-3168	826
222,07	222	0,05	1097,8	0,0	22,0	0,0	0,0	0,0	0,0	0,0	1119,8	36,4	181,8	520,0	0	0	4,5	40,0	44,5	10%	0	-1120	-114
206,09	206	0,16	190,8	0,0	20,3	0,0	0,0	0,0	560,6	892,3	1664,0	560,0	492,3	314,5	6769	1378	12,3	45,5	57,8	21%	3860	2196	288
206,12	206	0,20	180,0	0,0	38,5	0,0	0,0	0,0	442,2	935,0	1595,7	637,0	360,0	282,2	8480	1429	9,0	19,6	28,6	31%	4002	2406	413
175,03	175	0,21	890,5	0,0	41,9	0,0	0,0	0,0	229,1	499,4	1660,9	0,0	602,5	486,8	2381	458	15,1	0,0	15,1	100%	1282	-379	53
180,01	180	0,25	492,0	3200,0	39,6	172,0	0,0	0,0	0,0	842,0	4745,6	0,0	4320,0	12,0	1800	516	108,0	0,0	108,0	100%	1445	-3301	13
203,16	203	0,40	192,5	0,0	35,8	0,0	0,0	174,8	111,4	0,0	514,5	98,4	50,0	128,9	0	0	1,3	2,5	3,7	34%	0	-515	-103
233,03	233	0,40	454,6	0,0	5,5	0,0	0,0	0,0	327,5	57,5	845,1	0,0	212,5	427,0	238	63	5,3	0,0	5,3	100%	175	-670	-47
203,14	203	0,80	180,6	0,0	97,6	0,0	0,0	172,4	80,2	276,4	807,3	154,7	175,0	122,6	1373	381	4,4	5,3	9,6	45%	1068	260	216
203,17	203	1,40	561,6	0,0	14,9	0,0	0,0	176,1	272,1	855,9	1880,6	330,5	585,7	692,1	5839	1622	14,6	12,2	26,8	55%	4541	2661	263
203,15	203	1,60	167,5	0,0	30,3	0,0	0,0	173,3	211,7	379,6	962,3	182,6	237,5	266,5	2211	614	5,9	4,9	10,8	55%	1720	758	245

PEZA 2016-17 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmer's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
501,01	501	0,88	0,0	136,4	45,5	7,5	0,0	63,2	84,4	54,5	391,5	0,0	228,4	57,2	2045	455	5,7	13,1	18,8	30%	1273	881	213
102,05	102	0,25	0,0	700,0	160,0	0,0	0,0	0,0	0,0	0,0	860,0	0,0	800,0	0,0	0	0	20,0	13,1	33,1	60%	0	-860	0
104,02	104	0,14	540,9	678,6	214,3	0,0	117,9	0,0	0,0	0,0	1551,6	0,0	958,6	611,4	0	0	24,0	13,1	37,1	65%	0	-1552	-26
104,01	104	0,17	421,9	558,8	176,5	0,0	110,3	0,0	0,0	0,0	1267,5	0,0	794,7	519,8	0	0	19,9	13,1	33,0	60%	0	-1268	-26
107,05	107	0,25	0,0	160,0	80,0	0,0	206,0	0,0	0,0	2211,6	2657,6	120,0	2367,6	36,0	1600	360	59,2	13,1	72,3	82%	1008	-1650	16
108,01	108	0,09	0,0	666,7	222,2	222,2	0,0	0,0	0,0	375,6	1486,7	0,0	1208,9	0,0	1333	333	30,2	13,1	43,3	70%	933	-553	31
120,13	120	0,09	0,0	888,9	222,2	84,6	0,0	0,0	0,0	0,0	1195,7	0,0	1122,2	73,5	0	0	28,1	13,1	41,2	68%	0	-1196	-3
504,05	504	0,23	0,0	0,0	0,0	53,3	0,0	142,8	0,0	577,8	773,9	0,0	568,0	68,9	7430	1581	14,2	13,1	27,3	52%	4426	3653	307
117,19	117	0,13	355,8	307,7	44,7	0,0	47,3	0,0	0,0	265,9	1021,3	267,7	374,2	311,5	2270	454	9,4	13,1	22,5	42%	1271	250	103
117,21	117	0,32	513,3	375,0	75,6	0,0	78,8	0,0	80,0	712,3	1834,9	735,0	422,5	565,0	6710	1342	10,6	13,1	23,7	45%	3758	1923	302
123,02	123	0,46	0,0	347,8	102,2	32,1	0,0	161,8	0,0	411,5	1055,4	130,4	659,8	170,4	2933	603	16,5	13,1	29,6	56%	1687	632	92
505,03	505	0,24	0,0	0,0	0,0	45,8	0,0	0,0	0,0	112,5	158,3	0,0	70,8	41,7	640	128	1,8	13,1	14,9	12%	358	200	179
506,01	506	0,25	1014,0	320,0	160,0	0,0	91,7	100,5	0,0	379,3	2065,5	0,0	993,3	1002,2	1440	209	24,8	13,1	38,0	65%	584	-1481	-17
128,10	128	0,11	124,0	181,8	181,8	727,3	0,0	0,0	0,0	0,0	1214,9	363,6	409,1	78,5	0	0	10,2	13,1	23,4	44%	0	-1215	-8
507,02	507	0,15	0,0	0,0	0,0	0,0	0,0	0,0	0,0	647,9	647,9	400,0	190,5	0,0	2013	429	4,8	13,1	17,9	27%	1202	554	252
508,10	508	0,43	0,0	139,5	46,5	0,0	39,4	0,0	0,0	127,0	352,4	0,0	303,6	20,9	1581	372	7,6	13,1	20,7	37%	1042	689	135
142,11	142	0,17	249,0	235,3	36,2	38,2	0,0	160,7	0,0	905,1	1624,6	529,4	717,7	279,6	2910	633	17,9	13,1	31,1	58%	1771	147	83
510,03	510	0,12	0,0	666,7	333,3	833,3	0,0	207,4	0,0	545,6	2586,3	416,7	1664,8	7,4	3993	1000	41,6	13,1	54,7	76%	2800	214	67
510,06	510	0,20	0,0	800,0	200,0	17,5	0,0	0,0	0,0	711,7	1729,2	0,0	1669,2	15,0	2428	607	41,7	13,1	54,9	76%	1700	-30	40
510,07	510	0,15	0,0	533,3	266,7	43,3	0,0	207,4	0,0	460,0	1510,7	0,0	1397,5	47,4	9147	1841	34,9	13,1	48,1	73%	5154	3643	146
501,02	501	0,12	915,1	750,2	0,0	11,4	0,0	0,0	0,0	257,2	1934,0	750,2	138,4	9,3	3000	500	3,5	13,1	16,6	21%	1400	-534	402
502,18	502	0,98	1369,8	750,2	9,2	0,0	91,2	17,2	0,0	1790,0	4027,7	761,7	1813,5	45,9	4173	835	45,3	13,1	58,5	78%	2337	-1691	51
502,03	502	0,76	1369,8	750,2	11,8	44,9	0,0	17,2	0,0	97,4	2291,4	761,7	88,0	44,2	1773	355	2,2	13,1	15,3	14%	993	-1298	431
503,02	503	2,00	915,1	750,2	0,0	0,0	0,0	142,1	1152,0	900,0	3859,4	1173,1	501,9	598,1	3922	828	12,5	13,1	25,7	49%	2319	-1540	137
503,01	503	0,62	915,1	750,2	0,0	0,0	0,0	163,1	1152,0	510,1	3490,6	1176,5	116,6	610,1	3922	828	2,9	13,1	16,0	18%	2319	-1171	586
504,04	504	0,50	1369,8	774,0	36,0	49,0	0,0	74,7	0,0	4054,0	6357,5	750,2	4041,0	64,7	2472	533	101,0	13,1	114,2	89%	1494	-4864	14
123,01	123	0,65	915,1	805,2	13,8	31,5	0,0	161,8	0,0	576,4	2503,8	934,8	366,3	169,8	5478	1134	9,2	13,1	22,3	41%	3175	671	328
505,04	505	1,20	1369,8	789,9	11,3	35,8	0,0	0,0	38,7	776,8	3022,2	750,2	741,0	52,7	2198	440	18,5	13,1	31,6	59%	1231	-1791	64
506,10	506	0,43	915,1	777,9	31,4	232,6	0,0	0,0	0,0	0,0	1957,0	750,2	0,0	0,0	0	0	0,0	13,1	13,1	0%	0	-1957	-
179,12	179	1,11	0,0	750,2	0,0	45,6	0,0	50,1	0,0	4397,4	5243,3	750,2	4377,7	77,6	2641	629	109,4	13,1	122,6	89%	1761	-3483	15
179,15	179	0,74	0,0	750,2	0,0	82,1	0,0	49,0	0,0	483,0	1364,4	750,2	447,0	113,6	3803	905	11,2	13,1	24,3	46%	2535	1171	217
179,16	179	0,55	0,0	750,2	0,0	55,2	0,0	54,8	0,0	358,4	1218,6	750,2	343,2	87,1	2306	549	8,6	13,1	21,7	40%	1537	319	169
179,20	179	1,21	0,0	750,2	0,0	58,6	0,0	48,6	0,0	1807,3	2664,7	750,2	1758,6	90,4	4443	1058	44,0	13,1	57,1	77%	2962	297	65
507,08	507	0,53	1513,6	817,6	8,5	0,0	0,0	57,4	368,0	544,2	3309,3	1200,5	118,0	312,3	2579	671	3,0	13,1	16,1	18%	1880	-1430	531
507,09	507	0,21	1542,4	863,6	21,4	0,0	0,0	57,4	368,0	804,5	3657,2	1375,7	198,6	312,3	6343	1067	5,0	13,1	18,1	27%	2987	-671	539
141,01	141	0,78	0,0	750,2	0,0	77,9	0,0	73,5	0,0	2436,0	3337,7	750,2	2420,2	126,9	2692	641	60,5	13,1	73,6	82%	1795	-1543	28
509,06	509	0,53	915,1	750,2	25,5	0,0	65,3	0,0	0,0	1210,6	2966,8	750,2	1136,3	37,8	5064	1214	28,4	13,1	41,5	68%	3399	432	118
142,12	142	0,27	1680,8	750,2	18,0	38,4	0,0	173,6	0,0	882,0	3543,0	1305,8	388,4	336,8	3920	1059	9,7	13,1	22,8	43%	2966	-576	271
510,04	510	0,15	1369,8	750,2	75,0	23,3	0,0	207,4	0,0	593,3	3019,0	750,2	730,8	27,4	1367	267	18,3	13,1	31,4	58%	747	-2272	39
510,02	510	0,61	1369,8	750,2	18,4	5,7	0,0	207,4	0,0	2192,3	4543,9	750,2	2328,3	12,3	3181	675	58,2	13,1	71,3	82%	1890	-2654	32

NILEAS 2016-17 SUMMARY OF DATA PER PARCEL FROM EMS-CLIMA

Parcel's code	Farmers code	Area (Ha)	Fertilization cost € / Ha	Pruning cost € / Ha	Pruned wood management cost € / Ha	Soil management cost € / Ha	Chemical weed control cost € / Ha	Plant protection cost € / Ha	Irigation cost € / Ha	Harvesting cost € / Ha	Sum of all cost elements € / Ha	Labor cost (LC) € / Ha	Farmer's own time cost € / Ha	Inputs cost € / Ha	Yield Kg olive fruit / Ha	Yield Kg olive oil / Ha	Man-days of farmerΓ's own work / Ha	Man-days of paid labor / Ha	Total man-days / Ha	Own work to total work ratio	Gross income € / Ha	Net income € / Ha	Farmer's salary / dayof work
8,02	8	0,40	113,2	0,0	76,7	16,1	0,0	0,0	0,0	0,0	206,0	89,5	6,7	104,0	0	0	0,2	2,6	2,7	6%	0	-206	-620
41,04	41	0,50	337,5	200,0	80,0	30,5	0,0	30,9	0,0	906,5	1585,4	595,0	552,0	314,4	5664	852	13,8	17,0	30,8	45%	2386	800	150
43,02	43	0,56	368,3	46,4	0,0	121,0	31,3	163,3	0,0	1604,3	2334,6	911,9	732,8	342,9	12857	2084	18,3	26,1	44,4	41%	5835	3500	300
30,01	30	0,45	479,7	166,7	88,9	56,7	0,0	0,0	0,0	870,0	1661,9	777,8	612,2	268,6	9071	1267	15,3	22,2	37,5	41%	3547	1885	214
23,01	23	0,70	304,3	285,7	114,3	200,0	0,0	54,2	0,0	603,3	1561,8	500,0	532,6	253,7	6429	1214	13,3	14,3	27,6	48%	3400	1838	236
55,05	55	0,81	0,0	148,1	0,0	6,9	0,0	0,0	0,0	462,8	617,9	293,7	231,0	6,2	7945	1068	5,8	8,4	14,2	41%	2989	2372	517
17,03	17	0,99	0,0	204,8	20,2	30,8	0,0	0,0	0,0	627,8	883,7	353,5	430,3	30,3	7975	1589	10,8	10,1	20,9	52%	4449	3565	411
20,02	20	1,01	275,2	158,4	108,9	148,5	0,0	0,0	0,0	455,7	1146,8	326,7	416,3	225,7	3802	568	10,4	9,3	19,7	53%	1591	444	131
23,02	23	1,80	361,1	333,3	88,9	200,0	0,0	84,3	0,0	1027,8	2095,4	505,6	767,8	332,4	11667	2389	19,2	14,4	33,6	57%	6689	4593	331
48,01	48	1,90	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
27,03	27	0,40	1162,5	322,5	100,0	150,0	0,0	131,3	60,0	1490,3	3416,6	656,3	683,3	1062,5	11875	2175	17,1	18,8	35,8	48%	6090	2673	294
10,02	10	0,45	278,0	355,6	376,9	63,3	0,0	0,0	453,3	751,6	2278,6	1244,4	333,2	264,4	9911	1362	8,3	35,6	43,9	19%	3814	1536	426
59,05	59	0,46	214,6	108,7	43,5	28,3	0,0	129,0	8,7	584,3	1117,1	663,0	152,8	219,0	6957	1235	3,8	18,9	22,8	17%	3457	2340	848
10,05	10	0,53	316,1	301,9	324,5	53,8	0,0	0,0	384,9	548,7	1929,8	981,1	308,0	284,0	5472	1170	7,7	28,0	35,7	22%	3275	1346	388
17,07	17	0,69	0,0	194,2	29,0	26,8	0,0	0,0	0,0	146,9	396,9	101,4	229,9	26,1	1739	261	5,7	2,9	8,6	66%	730	334	123
17,10	17	0,80	0,0	101,8	25,0	11,5	0,0	0,0	0,0	323,9	462,2	175,0	241,2	11,3	3494	575	6,0	5,0	11,0	55%	1610	1148	265
180,11	180	0,82	0,0	97,6	0,0	50,0	0,0	0,0	0,0	708,5	856,1	573,2	246,3	12,2	4061	634	6,2	16,4	22,5	27%	1776	920	286
180,06	180	0,99	23,4	80,8	211,9	202,0	0,0	0,0	0,0	368,7	886,9	505,1	130,3	19,4	3339	556	3,3	14,4	17,7	18%	1556	669	472
98,02	98	1,32	282,2	212,1	30,3	80,7	0,0	136,8	212,1	776,0	1730,3	0,0	1097,6	337,2	12394	2083	27,4	0,0	27,4	100%	5833	4103	200
8,04	8	2,00	159,0	85,1	170,0	86,8	0,0	0,0	0,0	805,6	1306,5	991,5	51,3	185,5	12668	1861	1,3	28,3	29,6	4%	5211	3904	3922
40,04	40	0,86	123,6	0,0	0,0	0,0	0,0	0,0	0,0	55,7	179,2	40,7	102,2	30,5	558	58	2,6	1,2	3,7	69%	163	-16	52
58,01	58	1,10	0,0	0,0	0,0	0,0	42,2	86,0	0,0	712,4	840,5	479,3	258,7	33,6	8909	1273	6,5	13,7	20,2	32%	3564	2723	546
200,01	200	1,10	360,7	242,0	36,4	381,8	0,0	170,9	0,0	845,5	2037,3	1409,1	0,0	386,2	7834	1216	0,0	40,3	40,3	0%	3406	1369	-
41,03	41	1,27	414,6	94,5	31,5	26,8	0,0	0,0	0,0	691,4	1258,8	385,8	409,6	397,2	6783	1042	10,2	11,0	21,3	48%	2917	1658	246
73,02	73	1,30	284,6	46,2	46,2	23,5	0,0	34,3	0,0	756,2	1190,9	553,8	247,3	296,2	13992	2281	6,2	15,8	22,0	28%	6386	5195	985
8,01	8	2,20	140,3	0,0	95,1	48,2	0,0	0,0	0,0	343,2	626,9	481,4	8,3	130,0	4900	732	0,2	13,8	14,0	1%	2050	1423	9286
21,01	21	3,00	350,1	106,7	0,0	186,9	0,0	184,0	0,0	1178,4	2006,2	866,7	401,7	491,1	5243	1128	10,0	24,8	34,8	29%	3157	1151	265
211,01	211	1,30	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0	0,0	0,0	0,0		0	0	-
30,04	30	4,37	168,6	91,5	17,2	44,4	0,0	0,0	0,0	1357,8	1679,5	392,4	1088,5	157,2	5136	857	27,2	11,2	38,4	71%	2400	721	82
10,03	10	0,53	226,4	301,9	320,0	53,8	0,0	0,0	0,0	659,5	1561,5	1056,6	221,0	218,9	6415	906	5,5	30,2	35,7	15%	2536	974	419
180,10	180	0,80	0,0	100,0	0,0	70,0	0,0	0,0	0,0	614,2	784,2	475,0	209,2	62,5	6458	1100	5,2	13,6	18,8	28%	3080	2296	577
10,04	10	1,00	165,2	400,0	424,0	57,0	0,0	0,0	136,0	846,9	2029,1	1360,0	289,4	202,3	11150	1690	7,2	38,9	46,1	16%	4732	2703	626
27,04	27	1,20	241,7	248,3	33,3	150,0	0,0	14,6	40,0	485,7	1213,6	189,6	600,0	208,3	2292	375	15,0	5,4	20,4	73%	1050	-164	56
180,08	180	1,50	234,0	266,7	0,0	102,0	0,0	0,0	138,7	621,2	1362,5	400,0	595,2	235,3	6813	1073	14,9	11,4	26,3	57%	3005	1643	186
59,01	59	2,06	275,6	121,4	24,3	29,0	0,0	115,2	35,0	1402,7	2003,1	1148,1	493,4	271,3	7485	1212	12,3	32,8	45,1	27%	3394	1391	253
8,03	8	3,50	180,3	85,3	171,4	118,8	0,0	0,0	0,0	789,1	1344,9	944,9	103,8	199,9	12111	1773	2,6	27,0	29,6	9%	4966	3621	1837
55,03	55	3,78	0,0	140,7	3,2	5,8	0,0	75,3	0,0	482,5	707,6	186,5	390,0	58,2	4048	831	9,8	5,3	15,1	65%	2327	1620	233
17,04	17	1,52	0,0	210,5	13,2	30,9	0,0	0,0	157,9	514,5	927,0	276,3	515,7	30,3	6711	1249	12,9	7,9	20,8	62%	3496	2569	269
12,01	12	0,87	128,7	143,1	46,0	71,3	0,0	113,4	132,2	1440,4	2075,1	275,9	1321,8	197,7	8920	1469	33,0	7,9	40,9	81%	4113	2038	118
44,01	44	0,60	504,2	266,7	100,0	250,0	0,0	61,3	0,0	633,3	1815,4	1075,0	200,0	440,4	6000	900	5,0	30,7	35,7	14%	2520	705	416