LIFE

Climate Change Mitigation

Deliverable A.3: Analysis of Climatic, Environmental and Socioeconomic Parameters of tree-crop categories in S. Europe

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LIFE CLIMATREE (LIFE14 CCM/GR/ 000635)

A novel approach for accounting and monitoring carbon sequestration of tree crops and their potential as carbon sink areas

The **LIFE CLIMATREE** project "A novel approach for accounting and monitoring carbon sequestration of tree crops and their potential as carbon sink areas" (LIFE14 CCM/GR/000635) is co-funded by the EU Environmental Funding Programme **LIFE Climate Change Mitigation**.

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The current report presents the methodology followed for the implementation of Action A.3: "**Analysis of Climatic, Environmental and Socioeconomic Parameters of tree-crop categories in S. Europe**", of the LIFE CLIMATREE project.

Summary

BACKGROUND: Tree crops cultivation is affected by parameters related to climatic, environmental and socioeconomic conditions. This report assess the current state of tree crops in S. Europe. The main climatic parameters which are related to tree crops are the temperature, precipitation and humidity and are assessed, here, using observation data from monitoring stations. Environmental parameters are related mainly to the cultivation practices followed for the tree-crops selected in the implementation countries (Spain, Greece and Italy). Analysis of the socio-economic parameters that influence tree crops in S. Europe is focused on production, employment and trade. In addition, the role of Common Agricultural Policy (CAP), as a socioeconomic parameter affecting the development of permanent tree crops in South Europe is examined in this report.

RESULTS:

1. Climatic parameter: Daily observation data from the European Climate Assessment and Dataset (ECA&D) project have been collected and analyzed for Greece, Italy and Spain starting from 1955. For a better spatiotemporal data analysis, the three countries have been divided into three geographical regions (i.e., south, central and north). Our data analysis provides monthly average values per decade and per region for the decades 1955-1964, 1965-1974, 1975-1984, 1985-1994, 1995-2004, 2005-2015 based on the available data. Highest temperature are observed in July and August in all regions of all countries. Greece has the highest daily average temperatures during summer (i.e., more than 25 °C in all regions for all the decades examined here). In all regions of Italy and the south region of Spain, the highest daily average temperatures exceed 25 °C during summer mainly the last two decades. The low temperatures recorded during winter exceeds 10 °C in the south regions of the three countries while the temperature over the northern regions is much lower. In north Italy the daily average temperatures during winter is found up to 5 °C. In addition the daily average temperatures during the last two decades are found higher in all regions during all months with few exceptions mainly over Greece and north Spain. Daily average precipitation is lower during summer in all regions and in all countries. The precipitation rate during summer in the northern parts of all countries is higher compared to the southern and central parts. South and central Greece are the two regions with the highest precipitation rates during winter and autumn. Daily average humidity is also lower during summer in all regions and in all countries.

In general, humidity is ranging between 60%-80% with an exception of the central parts of Greece and Spain where it is found lower than 50% during summer.

2. Environmental parameters: Based on these data collected during the implementation of Action A.1, the most representative tree-crops for Greece, Italy and Spain were selected in order to identify their environmental parameters affecting their carbon sink potentials.
The parameters which are of importance for the carbon sink potential of the selected tree-crops are related to the cultivation practices followed. These parameters are: Plantation density, Soil tillage, Irrigation requirements, Fertilization use, Herbicides use, Pesticides use. For each of these parameters the cultivation practices are presented for the selected tree crops.

3. Socioeconomic parameters: Various indicators related to production, employment and trade of tree crops categories are included in this report for the analysis of the socio-economic factors that influence tree crops production in South Europe. Indices are in the form of annual time series data covering the time period 1985-2013. Most of them have been extracted from World Bank Database and Food and Agriculture Organization Statistics Division (FAOSTAT) while several other proxies have been calculated by authors. Socio-Economic parameters are presented and analyzed for Cyprus, Greece, Italy and Spain. Furthermore, it is examined the role of CAP to the development of permanent tree crops cultivations in South Europe. In the period 1985-2013, tree crops production values were highly volatile in all countries. The contribution both of agriculture and tree crops production value to GDP is highly significant in all countries and above the corresponding value of EU-27 level. The employment in agricultural sector and consequently in tree crops sector at the national level has diminished over the years for all examined countries. Finally, agriculture's balance of trade is negative in Cyprus, Greece and Italy in almost all the examined period. On the other hand, all examined countries display a tree crops trade surplus indicating that their export rate exceeds their imports rate.

1. Introduction

For a better understating of accounting and monitoring carbon sequestration of tree crops and their potential as carbon sink areas, it is necessary to assess the current state of tree crops in S. Europe. Tree crops cultivation is affected by climatic, environmental and socioeconomic conditions. As such an in depth analysis of the current state conditions that affects tree crops cultivation in S. Europe is needed. The main climatic parameters which are related to tree crops are temperature, precipitation and humidity. Among the socioeconomic parameters affecting tree crops, production, employment and trade could be considered the most important.

In this report, each one of the examined parameters affecting tree crops (i.e., climatic, environmental, socioeconomic) is analyzed in a separate section. Section 2 is focused on the climatic parameters, section 3 is focused on the environmental parameters, section 4 is focused on socioeconomic parameters. At the end of this report there is a number of annexes with data related to the examined parameters.

2. Climatic Parameters

2.1. Method

The main climatic parameters which are related to tree crops are the temperature, precipitation and humidity. For the purpose of the Action A.3 of LIFE CLIMATREE these parameters were collected for Greece, Italy and Spain using daily data from the European Climate Assessment and Dataset (ECA&D) project (http://eca.knmi.nl/). ECA&D has attained the status of Regional Climate Centre for high–resolution observation data in World Meteorological Organization Region VI (Europe and the Middle East). Today, ECA&D is receiving data from 66 participants for 62 countries and the ECA dataset contains 42166 series of observations for 12 elements at 10455 meteorological stations throughout Europe and the Mediterranean. For each station standard longitude, latitude and elevation are also provided. To make available for each station a time series that is as complete as possible, ECA&D has included an automated update procedure that relies on the daily data from SYNOP messages that are distributed in near real time over the Global Telecommunication System (GTS). In this procedure the gaps in a daily series are also infilled with observations from nearby stations, provided that they are within 12.5km distance and that the height differences are less than 25m. The series are quality controlled and flags (“OK”, “suspect” or “missing”) for individual data are attached. Homogeneity testing has resulted in classification of series in “useful”, “doubtful” or “suspect”. Here, only the "OK" and "useful" data have been used. In order to define the current state conditions for temperature, precipitation and humidly for the three countries and to assess the relevant trend during the last 50 years, here, we analyze the available observation data for the period between 1955 and 2014. For temperature, the database includes data for 28, 8 and 196 observation stations for Greece, Italy and Spain, respectively. For precipitation, the database includes data for 24, 69 and 196 observation stations for Greece, Italy and Spain, respectively. For humidity, the database includes data for 12, 4 and 186 observation stations for Greece, Italy and Spain, respectively. The daily averaged values per decade for temperature, precipitation and humidity are presented here on a monthly basis for the three countries. Results are, also, averaged per three geographical regions for each country. These geographical regions divide each country into three equal parts from the south to the north, suggesting the South, Central and North regions.

For Greece (Figure 1.1 – right panel) in the South region belong the Greek observation stations with latitude less than 37.2, in the Central region belong the Greek observation stations with latitude between 37.2 and 39.5, while in the North region belong the Greek observation stations with latitude greater than 39.5. For Italy (Figure 1 – central panel) in the South region belong the Italian observation stations with latitude less than 40.1, in the Central region belongs the Italian observation stations with latitude between 40.1 and 43.5, while in the North region belongs the Italian observation stations with latitude greater than 43.5. For Spain (Figure 1 – left panel) in the South region belong the Spanish observation stations with latitude less than 38.6, in the Central region belong the Spanish observation stations with latitude between 38.6 and 41.2, while in the North region belong the Spanish observation stations with latitude greater than 41.2.

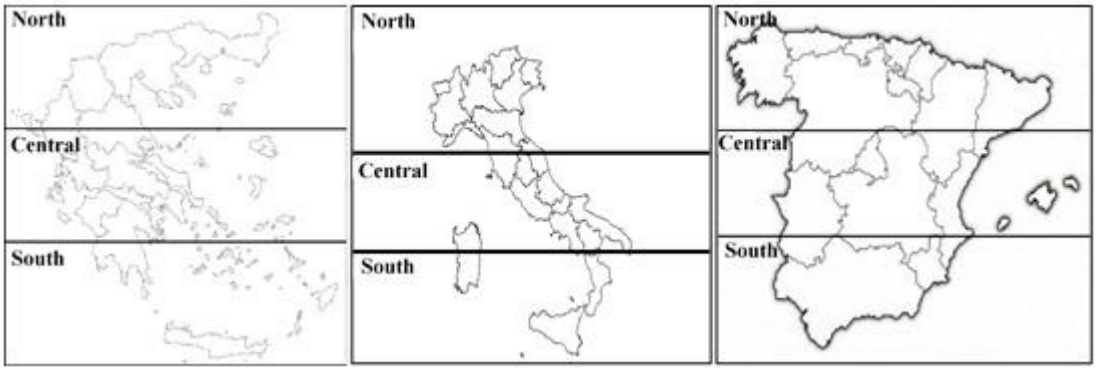

Figure 1.1: South, Central and North regions for Greece, Italy and Spain

2.2. Results

The daily average temperature, precipitation and humidity per decade, month and region are presented in Figures 1.2, 1.3 and 1.4, respectively, while details can be found in Annex I.

Temperature is reaching the highest value in July and August in all regions of all countries (Figure 1.2). Greece has the highest daily average temperatures during summer (i.e., more than 25 °C in all regions for all the decades examined here. In all regions of Italy and the south region of Spain, the highest daily average temperatures exceeds 25 °C during summer in mainly the last two decades. The lower temperatures recorded during winter exceeds 10 °C in the south regions of the three countries while the temperature over the northern regions is much lower. In north Italy the daily average temperatures during winter is found up to 5 °C. In addition the daily average temperatures during the last two decades are found higher in all regions during all months with few exceptions mainly over Greece and north Spain. Seasonal analysis suggests that the highest monthly average temperatures over south Greece during spring (20.3 °C), summer (27.1 °C) and autumn (23.8 °C) found for the decade 1995-2004

while during winter (13.8 °C) it is found for the decade 1955-1964 (note that there are not available data for the last decade for Greece). For central Greece the highest monthly average temperatures during winter (12.7 °C), spring (20.9 °C) and summer (28.7 °C) are found for the decade 1955-1964 while during autumn (24.7 °C) it is found for the decade 1985-1994. For north Greece the highest monthly average temperatures during winter (9.4 °C) and summer (27.1 °C) are found for the decade 1955-1964 while during spring (19.8 °C) and autumn (22.8 °C) it is found for the decades 1965-1974 and 1985-1994, respectively. The highest monthly average temperatures over south Italy during winter (12.2 °C) and autumn (23.1 °C) are found for the last decade, during spring (19.1 °C) it is found for the last two decades, while during summer (26.2 °C) it is found for the decade 1995-2004 (note that the available data for the last decade for Italy is up to 2009). The highest monthly average temperatures over central Italy during spring (18.9 °C) and summer (25.7 °C) are found for the last decade, during autumn (21.6 °C) it is found for the last decade as well as for 1985-1994, while during winter (9.0 °C) it is found for the decades 1955-1964 and 1995-2004. The highest monthly average temperatures over north Italy during winter (7.2 °C), spring (20.3 °C) and autumn (20.9 °C) are found for the last decade while during summer (27.8 °C) it is found for the decade 1995-2004. The highest monthly average temperatures over south Spain during spring (19.7 °C) and summer (25.7 °C) are found for the last decade, during winter (14.1 °C) it is found for the decade 1995-2004, while during autumn (23.5 °C) it is found for the decade 1985-1994. The highest monthly average temperatures over central Spain during spring (16.9 °C), summer (24.4 °C) and autumn (20.7 °C) found for the last decade, while during winter (8.3 °C) it is found for the decade 1995-2004. The highest monthly average temperatures over north Spain during winter (8.7 °C), spring (15.5 °C) and summer (21.8 °C) are found for the last decade, while during autumn (19.2 °C) it is found for the decade 1955-1964.

Daily average precipitation is lower during summer in all regions and in all countries (Figure 1.3).The precipitation rate during summer in the northern parts of all countries is higher compared to the southern and central parts. South and central Greece are the two regions with the highest precipitation rates during winter and autumn. Seasonal analysis suggests that the highest monthly average precipitation rates over south Greece during winter (5.2 mm/day), spring (3.1 mm/day) and autumn (4.3 mm/day) found for the decade 1995-2004 while during summer (0.2 mm/day) it is found for the decades 1955-1964 and 1975-1984 (note that the available data is up to 2010). The highest monthly average precipitation rates over central Greece during winter (5.6 mm/day), spring (2.7 mm/day) and autumn (5.2 mm/day) are found for the decade 1995-2004 while during summer (0.4 mm/day) it is found for the decades 1965-1974 and 1995-2004. The highest monthly average

precipitation rates over north Greece during winter (4.4 mm/day) are found for the decade 1995-2004, during spring (2.5 mm/day) are found for the decade 1995-1964, during summer (0.9 mm/day) are found for the decades 1995-1964 and 1995-2004, while during autumn (3.9 mm/day) are found for the decades 1995-1964 and 1985-1994 (note that there are not available data for the last decade for north Greece). The highest monthly average precipitation rates over south Italy during spring (1.5 mm/day) and autumn (2.2 mm/day) are found during the last decade, during winter (1.9 mm/day) are found for the decades 1965-1974, 1995-2004, 2005-2014, while during summer (0.6 mm/day) are found for the decade 1995-2004 (note that the available data is up to 2010). The highest monthly average precipitation rates over central Italy during winter (3.2 mm/day), spring (1.6 mm/day) and autumn (2.4 mm/day) are found for the last decade (note that the available data is up to 2009), while during summer (0.7 mm/day) it is found for the decade 1995-2004. The highest monthly average precipitation rates over north Italy during winter (2.8 mm/day), and spring (3.6 mm/day) are found for the last decade (note that the available data is up to 2009), during spring (2.6 mm/day) are found for the decade 1955-1964, while during summer (2.6 mm/day) are found for the decade 1975-1984. The highest monthly average precipitation rates over south Spain during winter (2.8 mm/day), spring (1.7 mm/day) and autumn (2.2 mm/day) are found for the decade 1955-1964, while during summer (0.6 mm/day) are found for the decade 1965-1974. The highest monthly average precipitation rates over central Spain during winter (2.0 mm/day) and spring (1.8 mm/day) are found for the decade 1995-2004, during summer (1.4 mm/day) are found for the decade 1955-1964, while during autumn (2.2 mm/day) are found for the decade 1985-1994. The highest monthly average precipitation rates over north Spain during winter (3.6 mm/day) are found for the decade 1975-1984, during spring (3.0 mm/day) it is found for the decade 1985-1994, during summer (1.8 mm/day) are found for the decades 1995-1964 and 1964-1974, while during autumn (3.7 mm/day) are found for the decade 1995-2004.

Daily average humidity is also lower during summer in all regions and in all countries (Figure 1.4). In general, humidity is ranging between 60%-80% with an exception of the central parts of Greece and Spain where it is found lower than 50% during summer. Seasonal analysis suggests that the highest monthly average humidity over south Greece during winter (73.1%), spring (70.0%) and autumn (72.0%) is found for the decade 1965-1974, while during summer (65.1%) it is found for the decade 1975-1984. The highest monthly average humidity over central Greece during winter (73.5%) and autumn (71.2%) is found for the decade 1995-2004, while during spring (68.1%) and summer (55.4%) is found for the decade 1965-1974. The highest monthly average humidity over north Greece during winter (81.8%) is found for

the decade 1995-2004, during spring (73.4%) and summer (59.0%) it is found for the decade 1975-1984, while during autumn (78.7%) it is found for the decades 1955-1964 and 1985-1994 (note that there are not available data for the last decade for Greece). The available humidity data for Italy are limited to the last two decades between the years 1999-2004 and 2005-2009. Based on that, the highest monthly average humidity over south Italy during winter (78.5%), spring (75.7%), summer (69.5%) and autumn (79.0%) is found for the decade 1995-2004. The highest monthly average humidity over central Italy during winter (82.2%), spring (78.2%), summer (68.7%) and autumn (84.0%) is found for the decade 1995-2004. The highest monthly average humidity over north Italy during spring (74.7%), summer (74.5%) and autumn (84.5%) is found for the decade 1995-2004, while during winter (82.6%) it is found for the last decade. The highest monthly average humidity over south Spain during winter (75.0%), spring (70.3%) and summer (65.9%) is found for the decade 1955-1964, while during autumn (74.9%) it is found for the decade 1965-1974. The highest monthly average humidity over central Spain during winter (79.2%) and autumn (76.9%) is found for the decade 1985-1994, during spring (68.1%) it is found for the decade 1965-1974, while during summer (60.2%) it is found for the decade 1975-1984. The highest monthly average humidity over north Spain during winter (80.2%) and autumn (80.2%) is found for the decade 1985-1994, while during spring (73.1%) and summer (73.0%) it is found for the decade 1955-1964.

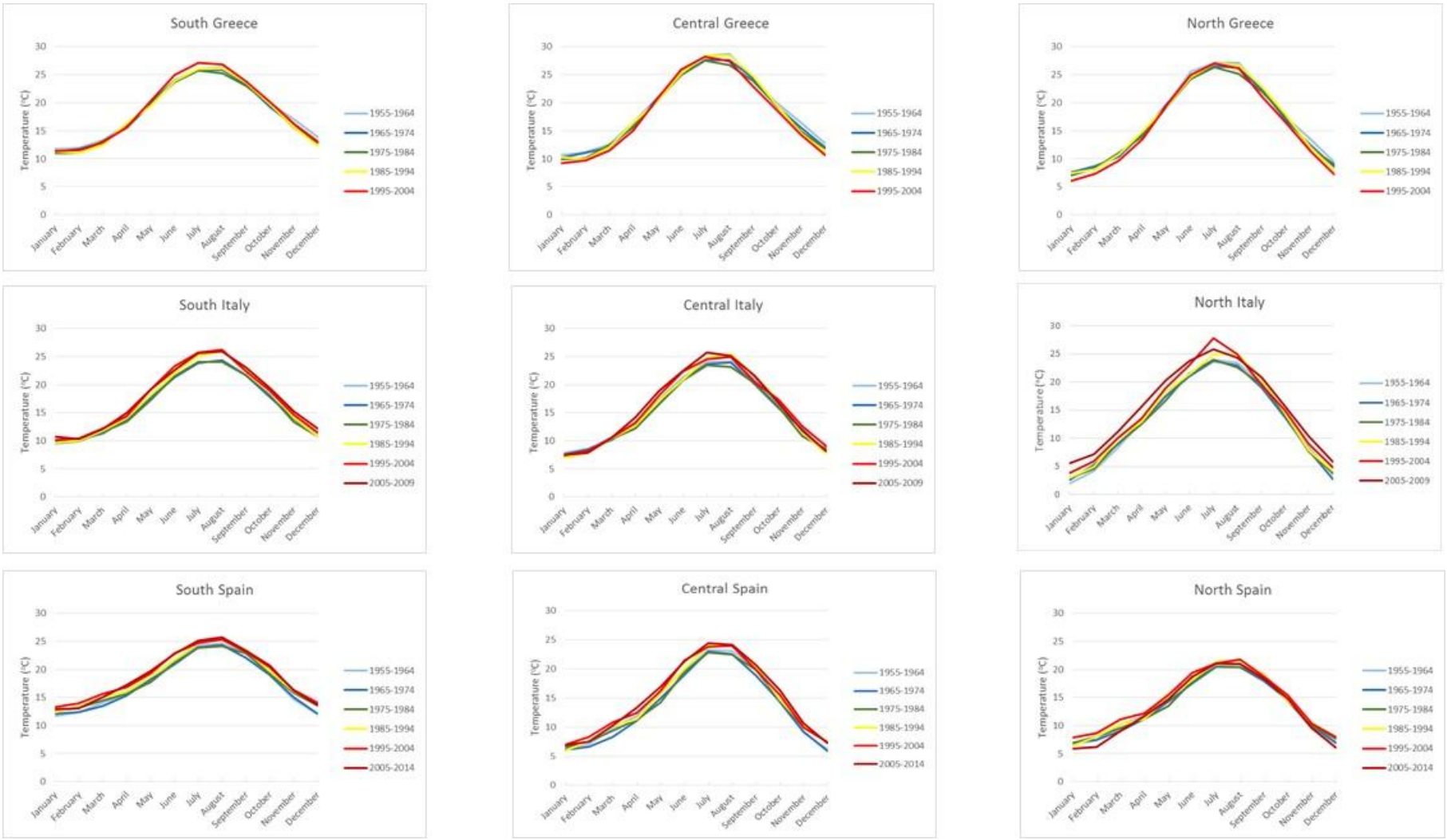

Figure 1.2: Daily average temperature (°C) per decade, month and region

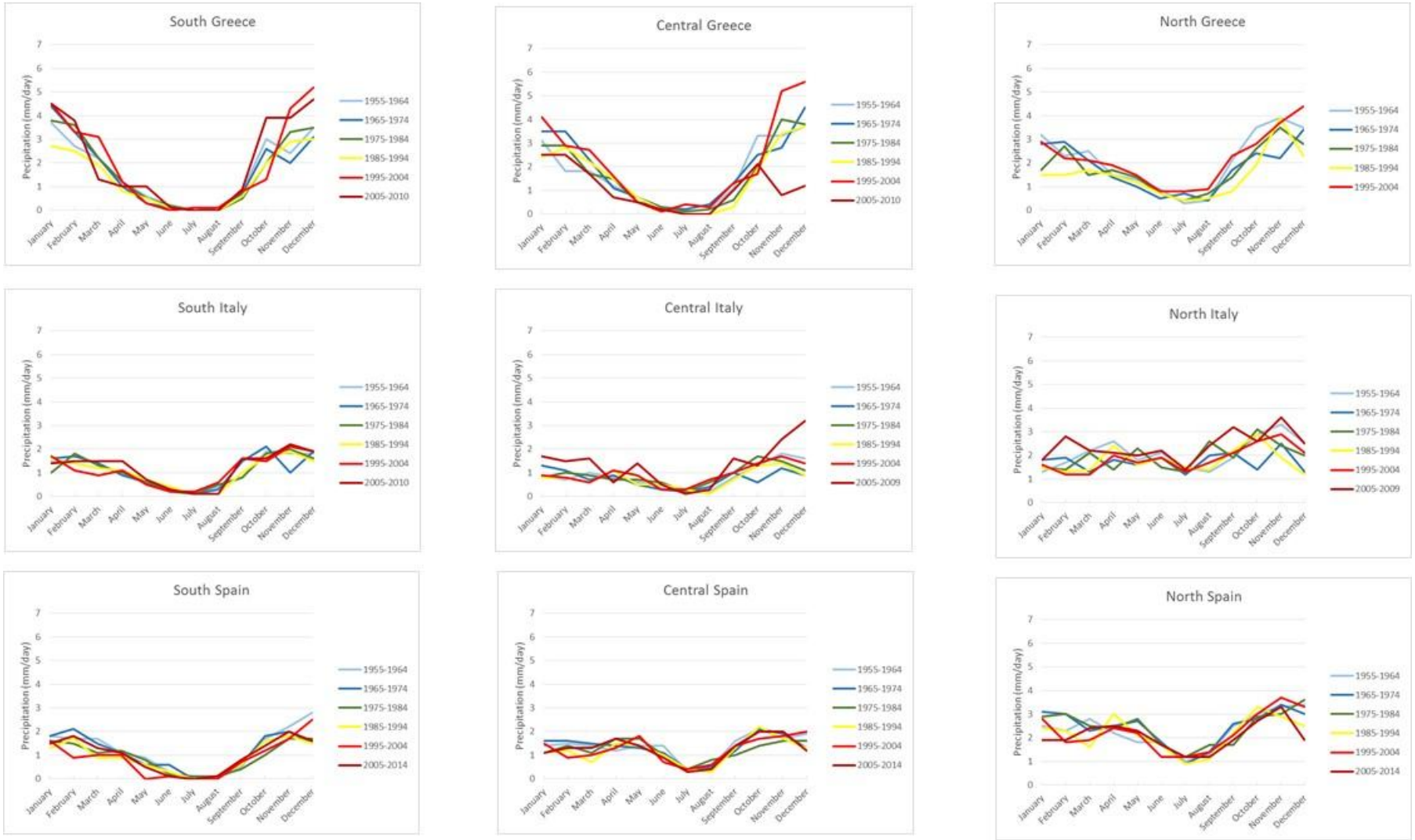

Figure 1.3: Daily average precipitation (mm/day) per decade, month and region

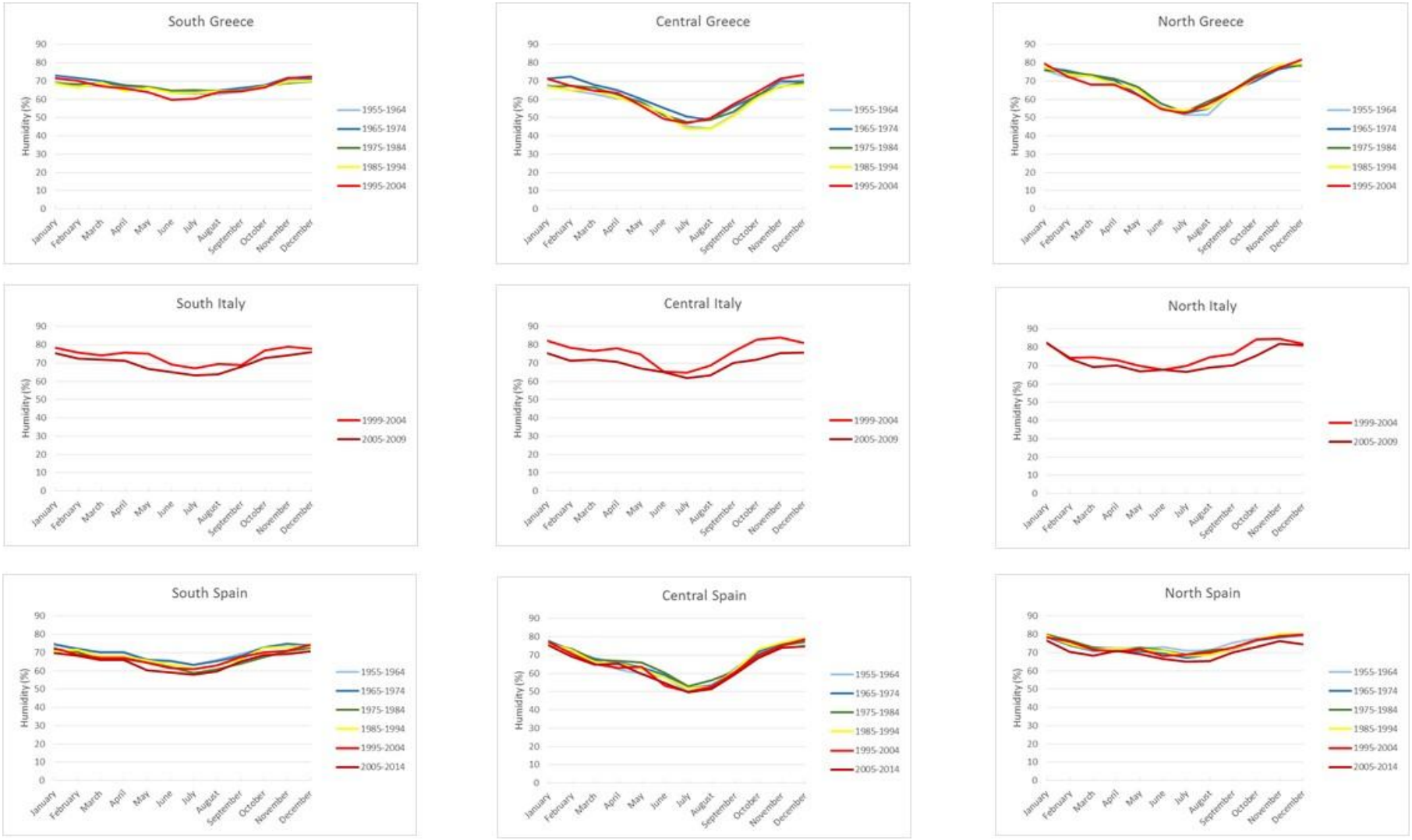

Figure 1.4: Daily average humidity (%) per decade, month and region

3. Environmental Parameters

3.1.Selection of representative tree-crops

During the implementation of Action A1, the major tree-crop have been identified and categorized according to their biological and cultivation characteristics. The results of this work are presented in the relevant Report. Based on these data, the most representative tree-crops for Greece, Italy and Spain were selected in order to identify their environmental parameters affecting their carbon sink potentials.

The major categories for each country are presented in the following table. The highlighted cells represent tree-crop cultivations with the largest expansion for each country.

Table 3.1: Tree-Crop Categories in Spain, Greece and Italy

Biological categories	Cultivation methodology	Ecological area	Tree-Crop	Area of cultivation (ha in Spain)	Area of cultivation (ha in Greece)	Area of cultivation (ha in Italy)	Area of cultivation (ha inTotal)
Evergreen	Intensive (Irrigated)	Costal zone	Orange	139,931.00	17,297.10	18,604.32	175,832.42
			Lemon	37,089.00	869.56	5,120.00	43,078.56
			Grapefruit	1,648.00	108.14	0.00	1,756.14
			Tangerine clm	74,495.00	50.78	0.00	74,545.78
			Tangerine	29,894.00	538.58	0.00	30,432.58
			Citrus various	813.00	742.54	8,094.32	9,649.86
			Pomelo	0.00	0.40	0.00	0.40
			Banana	9,146.00	143.38	0.00	9,289.38
			Avocado	10,212.00	184.56	0.00	10,396.56
			Date Palm	606.00	0.00	0.00	606.00
			Cactus Pear	56.00	0.00	0.00	56.00
			Loquat	2,478.00	0.00	0.00	2,478.00
			Raspberry	1,433.00	0.00	0.00	1,433.00
			Olive	0.00	0.00	222,140.21	222,140.21
		Midland zone	Carob	1,323.00	0.00	0.00	1,323.00
			Olive	583,203.00	0.00	0.00	583,203.00
		Mountain zone	-	0.00	0.00	0.00	0.00
	Extensive (Rainfed)	Costal zone	Cactus Pear	217.00	0.00	0.00	217.00
			Avocado	3.00	1,539.52	0.00	1,542.52
			Carob	0.00	2,007.10	0.00	2,007.10
			Loquat	83.00	6.96	0.00	89.96
			Grapefruit	0.00	183.22	0.00	183.22

			Olive (isl)	0.00	168,239.80	888,560.84	1,056,800.64
			Lemon	0.00	1,539.52	10,880.00	12,419.52
			Orange	0.00	39,700.82	58,913.68	98,614.50
			Tangerine	0.00	9,854.40	0.00	9,854.40
			Citrus various	0.00	354.72	23,037.68	23,392.40
		Midland zone	Carob	36,459.00	0.00	0.00	36,459.00
			Olive	1,848,885.00	1,402,707.14	0.00	3,251,592.14
		Mountain zone	-	0.00	0.00	0.00	0.00
Deciduous	Intensive (Irrigated)	Costal zone	Fig	1,346.00	4,180.72	0.00	5,526.72
			Kiwi	647.00	9,596.12	12,747.00	22,990.12
			Plum	12,547.00	38.64	0.00	12,585.64
			Persimmon	8,995.00	149.54	0.00	9,144.54
			Nectarin	25,967.00	8,602.72	0.00	34,569.72
			Peach	41,058.00	35,505.04	35,685.64	112,248.68
			Apricot	14,159.00	0.00	5,985.00	20,144.00
			Pear	22,341.00	1,458.02	14,031.00	37,830.02
			Pistachio	911.00	5,844.00	0.00	6,755.00
			Pomegranate	2,343.00	2,915.86	0.00	5,258.86
			Plum Dried	0.00	103.02	0.00	103.02
		Midland zone	Almond	37,817.00	0.00	0.00	37,817.00
		Mountain zone	Chestnut	720.00	0.00	0.00	720.00
			Apple	16,629.00	16,787.14	38,783.00	72,199.14
			Quince	879.00	0.00	0.00	879.00
			Custard apple	3,157.00	0.00	0.00	3,157.00
			Walnut	4,216.00	0.00	0.00	4,216.00
			Cherry	8,548.00	0.00	3,984.00	12,532.00
			Hazelnut	8,199.00	400.40	0.00	8,599.40
	Extensive (Rainfed)	Costal zone	Fig	9,256.00	1,013.94	0.00	10,269.94
			Kiwi	685.00	0.00	12,070.00	12,755.00
			Apricot	1,856.00	8,773.94	10,605.00	21,234.94
			Pear	1,098.00	5,266.32	16,152.00	22,516.32
			Persimmon	360.00	0.00	0.00	360.00
			Nectarin	786.00	0.00	0.00	786.00
			Peach	2,965.00	0.00	26,418.27	29,383.27
			Pistachio	2,721.00	0.00	0.00	2,721.00
			Pomegranate	55.00	0.00	0.00	55.00
			Plum	2,554.00	2,886.46	0.00	5,440.46
		Midland zone	Almond	465,253.00	19,753.80	0.00	485,006.80
		Mountain	Chestnut	27,920.00	13,089.20	0.00	41,009.20

		zone	Apple	12,214.00	0.00	13,475.00	25,689.00
			Walnut	2,829.00	**17,587.54**	0.00	20,416.54
			Quince	334.00	335.84	0.00	669.84
			Hazelnut	5,644.00	0.00	0.00	5,644.00
			Cherry	14,801.00	**20,647.56**	**19,359.00**	54,807.56
			Sour Cherry		38.62	0.00	38.62

Since the data of Action A3 will be used as input for Actions:

- C1 (Life Cycle Assessment of carbon cycle in tree-crop categories)
- C3 (Interface development of a software application for accounting tree-crop carbon)
- C4 (Carbon input / output calculation for current and future years)
- C.5 (Suggestions for Climate Change Mitigation Policies and Measure),

it was decided to select tree-crops that are common for all 3 countries in order to ensure that all parameters affecting the tree-crops are the same for all countries and will be comparable throughout the pilot implementation actions of the project.

The study of data extracted from Action A1 led to the selection of the most representative common tree-crops in 3 countries which are:

- **Olive trees**
- **Orange trees**
- **Peach trees**

These tree-crops, their areas of cultivation, the cultivation method and the ecological area used for the cultivation are presented in the following table for each country:

Table 3.2: Tree-Crop Categories in Spain, Greece and Italy

Biological categories	Cultivation methodology	Ecological area	Tree-Crop	Area of cultivation (ha in Spain)	Area of cultivation (ha in Greece)	Area of cultivation (ha in Italy)	Area of cultivation (ha in Total)
Evergreen	Intensive (Irrigated)	Costal zone	**Orange**	139,931.00	17,297.10	18,604.32	175,832.42
			Olive	0.00	0.00	222,140.21	222,140.21
		Midland zone	**Olive**	583,203.00	0.00	0.00	583,203.00
	Total			**723,134.00**	**17,297.10**	**240,744.53**	**981,175.63**
	Extensive (Rainfed)	Costal zone	**Olive (isl)**	0.00	168,239.80	888,560.84	1,056,800.64
			Orange	0.00	39,700.82	58,913.68	98,614.50
		Midland zone	**Olive**	1,848,885.00	1,402,707.14	0.00	3,251,592.14
	Total			**1,848,885.00**	**1,610,647.76**	**947,474.52**	**4,407,007.28**
Total				**2,572,019.00**	**1,627,944.86**	**1,188,219.05**	**5,388,182.91**
Deciduous	Intensive (Irrigated)	Costal zone	**Peach**	41,058.00	35,505.04	35,685.64	112,248.68
	Total			**41,058.00**	**35,505.04**	**35,685.64**	**112,248.68**
	Extensive (Rainfed)	Costal zone	**Peach**	2,965.00	0.00	26,418.27	29,383.27
	Total			2,965.00	0.00	26,418.27	29,383.27
Total				**44,023.00**	**35,505.04**	**62,103.91**	**141,631.95**
Total				**2,616,042.00**	**1,663,449.90**	**1,250,322.96**	**5,529,814.86**

3.2. Environmental parameters of selected tree-crops

The parameters which are of importance for the carbon sink potential of the selected tree-crops are related to the cultivation practices followed. These parameters are:

- Plantation density
- Soil tillage
- Irrigation requirements
- Fertilization use
- Herbicides use
- Pesticides use

For each of these parameters the cultivation practices are presented below for the selected tree crops.

Plantation density

The cultivation density for **olive trees** depends on the cultivation method followed. For low density plantation it is estimated that there are 200-300 trees/ha while for the high density plantation it is estimated that there are 1200-1800 tree/ ha.

For **orange trees**, the plantation density is estimated at 220-540 trees/ ha while for **peach trees** it is estimated at 300-1250 trees/ha.

Soil tillage

Soil tillage practice is common for all three tree-crops. The soil is usually tilled twice a year at a depth of 20-30 cm.

Irrigation requirements

The **olive trees** irrigation need are distrusted into 4-10 irrigation events while the wter needs are estimated at 250-300 m^3/1000 m^2.

Orange trees require approximately 700-900 m^3/ha on a yearly basis.

Peach trees are irrigated 6-10 times within the growing season and the water needs are estimated for the whole period at 300-500 m^3/1000 m^2.

Fertilization use

The fertilization needs for the selected tree-crops are presented in Kg of Nitrogen, Potassium and Phosphorus.

For **olive trees**, the fertilization requirements are:

Nitrogen: 0.5-1 kg/tree, applied during early spring and late spring to early summer and if needed during the mid summer period.

Potassium: 1-2 Kg/tree, applied during the rainy season (autumn to late winter). Also applied through the irrigation system in the summer (only in irrigated orchards).

Phosphorus: 0.2-0.35 kg/tree applied twice a year during the rainy season (autumn to late winter).

For **orange trees**, the fertilization requirements are:

Nitrogen: 120-300 Kg/ha/year, applied during early spring and late spring to early summer and if needed during the mid summer period.

Potassium: 50-90 Kg/ha/year, applied during the rainy season, thus from autumn to late winter.

Phosphorus: 60-90 Kg/ha/year, applied during the rainy season, thus from autumn to late winter

Finally, for **peach trees**, the fertilization requirements are:

Nitrogen: 100-200 Kg/ha/year, during early spring and late spring to early summer and if needed during the mid summer period

Potassium: 150-200 Kg/ha/2-3 years, during the rainy season, thus from autumn to late winter

Phosphorus: 100-150 Kg/ha/2-3 years, during the rainy season, thus from autumn to late winter

Herbicides use

The herbicides used in all three selected crops belong to the major category of Glyphosates. Glyphosate (N-(phosphonomethyl) glycine) is a broad-spectrum systemic herbicide and crop desiccant. It is an organophosphorus compound, specifically a phosphonate. It is used to kill weeds, especially annual broadleaf weeds and grasses that compete with crops. Monsanto brought it to market in 1974 under the trade name Roundup.

For **olive trees**, the dosage usually used is 5-10 l/ha with 2-3 applications/ year on the plantation row.

For **orange trees**, the usual dosage is 5-10 l/ha, 2-3 times/year both on the plantation row and/or between rows.

Finally, for **peach trees**, the usual dosage is 5-10 l/ha, 3 times/year on the plantation row.

Pesticides use

The pesticide use on each tree crop depends on the pest that needs to be confronted.

For **olive trees**, the pesticides mainly used are:

lamda cyhalothrin: 1-3 times/year (depending on the pest) with a dosage of 100-200 ml/ha

Dimethoate: 1-2 times/year (depending on the pest) with a dosage of 1.2 l/ha

Pyriproxyfen: dosage of 500 ml/ha

Dodine: 1-2 times/year with a dosage of 3.5 l/ha

Copper: 3 times/year with a dosage of 4 kg/ha

For **orange trees**, the pesticides mainly used are:

Chlorpyrifos: 1 time/ year with a dosage of 2.5 l/ha

Parrafinic oil: 1 time/ year with a dosage of 5 l/ha

Abamectin: 1 time/ year with a dosage of 1 l/ha

Deltamethrin: 1-2 times/ year with a dosage of 300-500 ml/ha

Copper: 1-2 times/year with a dosage of 2 kg/ha

For **peach trees**, the pesticides mainly used are:

Ziram (zinc dimethyldithiocarbamate): 1 time/year with a dosage of 3 kg/ha

Parrafinic oil: 1 time/ year with a dosage of 10 l/ha

Confidor (imidacloprid 20%): 1 time/ year with a dosage of 500 ml/ha

Chlorpyriphos: 1 time/ year with a dosage of 2.5 l/ha

Captan (ethanethiol): 1-2 times/ year with a dosage of 3 kg/ha

Neotopsin (Thiophanate methyl): 1 time/year with a dosage of 1 kg/ha

Abamectin: 1 time/ year with a dosage of 1 l/ha

Systhane: 1 time/ year with a dosage of 360 ml/ha

Thiram: 1 time/year with a dosage of 3 kg/ha

Sulphur: 1 time/year with a dosage of 2.5 kg/ha

Coragen (Chlorantraniliprole): 1 time/ year with a dosage of 200 ml/ha

The MSDS (Material Safety Data Sheets) of these substances are included in Annex IV.

The above mentioned parameters will be used as input into Action C1, for the calculation of the CO_2 factors that will be imported in the software developed in Action C3.

4. Socioeconomic Parameters

Among the main socioeconomic parameters affecting tree crops categories (e.g. Apples, Apricots, Lemons, Olives, Oranges) production, employment and trade are considered of the most important. In this context, various indicators related to these three parameters described above, are included in this report for the analysis of the socio-economic factors that are related to tree crops cultivation in South Europe (table 4.1).

The report covers almost all tree crops categories examines by CLIMATREE project. Specifically, Almond, Apples, Apricots, Avocados, Bananas, Cherries, Chestnut, Figs, Grapefruit, Kiwi, Lemons and Limes, Olives, Oranges, Peaches and Nectarines, Pears, Pistachios, Tangerines and Walnuts have been included in our analysis. Indices are in the form of annual time series data covering the time period 1985-2013. Most of them have been extracted from World Bank Database and Food and Agriculture Organization Statistics Division (FAOSTAT) while several other proxies have been calculated. Socio-Economic parameters are presented and analyzed for each country separately and specifically for Cyprus, Greece, Italy and Spain. In addition, several countries' indicators are compared with the corresponding ones of the EU-27 level.

Table 4.1: Indicators of socio–economic Parameters of Tree Crops Categories in South Europe

Indicators	Source
Production Indicators	
GDP	Word Bank
Agricultural Production Value	FAOSTAT
Tree Crops Production Value	FAOSTAT
Agricultural Production Value Added (% GDP)	FAOSTAT
Tree Crops Production Value Added (% agriculture production)	Authors calculations
Tree Crops Production Value Added (% GDP)	Authors calculations
Employment Indicators	

Total Employment	World Bank
Employment in Agriculture Sector	FAOSTAT
Employment in Tree Crops Production	Authors Calculations
Agriculture employment (% total employment)	FAOSTAT
Tree Crops Employment (% agriculture employment)	Authors Calculations
Tree Crops Employment (% total employment)	Authors Calculations
Trade Indicators	
Total Imports & Exports	Word Bank
Agriculture Imports & Exports	FAOSTAT
Tree Crops Imports & Exports	FAOSTAT
Agriculture Imports (% total imports)	Authors Calculations
Agriculture Exports (% total exports)	Authors Calculations
Tree Crops imports (% agriculture imports)	Authors Calculations
Tree Crops exports (% agriculture exports)	Authors Calculations

4.1 Analysis

4.1.1 Production Indicators

Figures 4.1 and 4.2 present gross agriculture and tree crops production value at constant 2005 prices in US $. Gross production value measures the production in monetary terms at the farm gate level and it has been compiled by multiplying gross production in physical terms (tones) by output prices at farm gate. Agriculture production value has been following a decreasing trend in all countries during the time period under investigation (1985-2013). Since 1985, agriculture production in Cyprus has decreased by an annual rate of 0.3%, while in Greece agricultural production has decreased substantially by -1.16% in average. It is notable, that the average annual rate of growth both in Italy and Spain was almost zero.

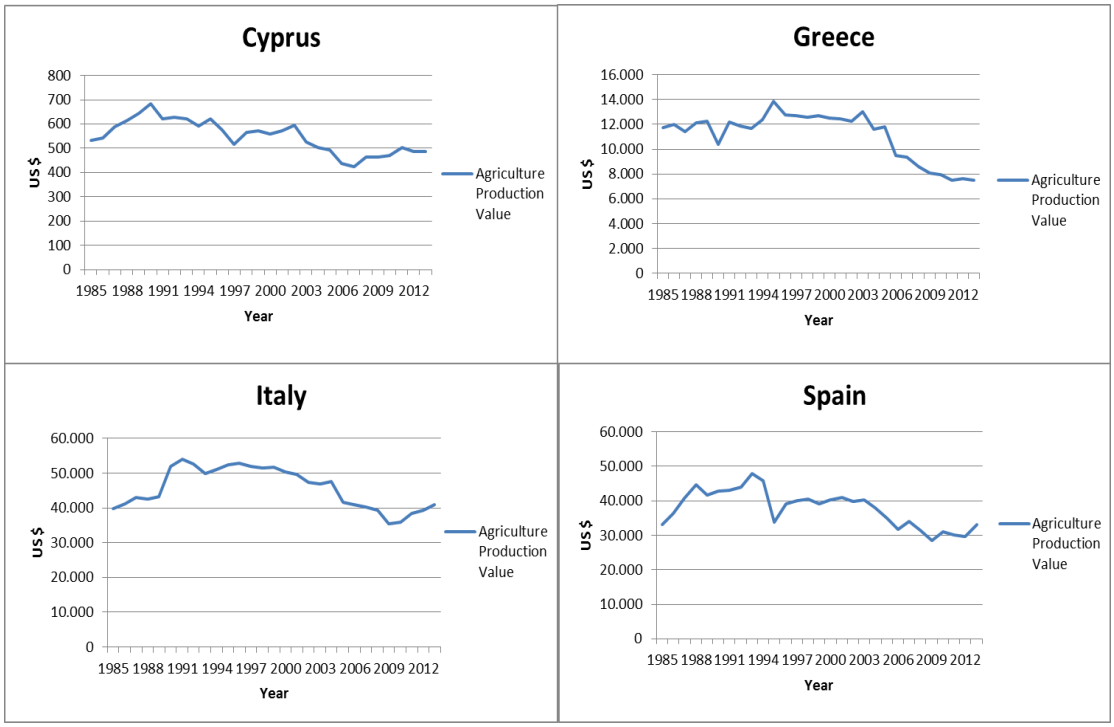

Figure 4.1: Agriculture Production Value for the time period 1985-2013

In the period 1985-2013, tree crops production values were highly volatile in all countries. In Greece as well Italy values have been fluctuating with an average annual decrease of 0.43% and 0.38% respectively. On the contrary, tree crops production value fluctuations in Spain tend to have an upward trend, reaching a peak of 10.070 US $ in 2003. In Cyprus, values still were volatile but fluctuations were far less for time period 2004-2013.

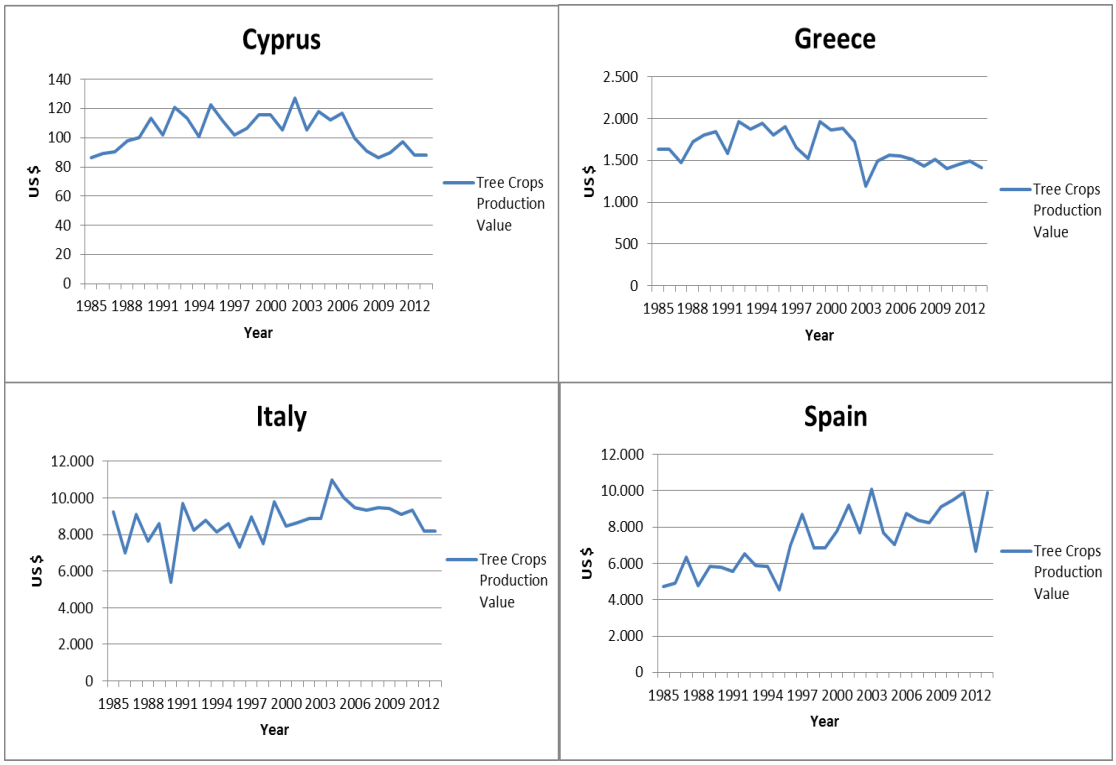

Figure 4.2: Tree Crops Production Value for the time period 1985-201

The contribution of the agriculture as well as tree crops production value to countries' GDP compared to the associated value of EU-27 level is depicted in figure 4.3. Agriculture production includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. As it can been seen from figure 4.3, the contribution both of agriculture and tree crops production value to GDP, is highly significant in all countries, above the corresponding value of EU-27 level. However, during the time period 1985-2013, the share of agriculture and tree crops value to GDP in all countries has been following a declining trend indicating that economies rely less on the agricultural sector.

In Greece, agriculture's value added to GDP has diminished over time from 7.7% in 1985 to 3.7% in 2013, with a compound average annual decrease rate of 1.79%. In Italy, the economic importance of the agricultural sector at the national level has also shrinked over the years by 11.7% in aggregate terms. In 2013, agriculture's value to GDP ratio accounted for 2.8% and 2.5% respectively above the associated 1.4% EU-27 level. In the period 1985-2013, tree crops value to GDP ratio fluctuated more than the agriculture production value added to GDP. Nevertheless, the contribution of tree crops production value to countries' economic growth is far above the average EU-27 level. In time period 1985-2013, the share of tree crops production value to GDP, in Greece and Cyprus has sharply decreased reaching 0.7% and 0.4% respectively. On the contrary, the contribution of tree crops value to Italian and Spanish economy seems to follow a constant trend. For the time period under investigation, tree

crops production value to GDP ratio in Italy decreased only by 0.3%, ranging from 0.7% in 1985 to 0.4% in 2013. On the other hand, the associated value in Spain increased by 0.1% during the same time period reaching 0.8% in 2013.

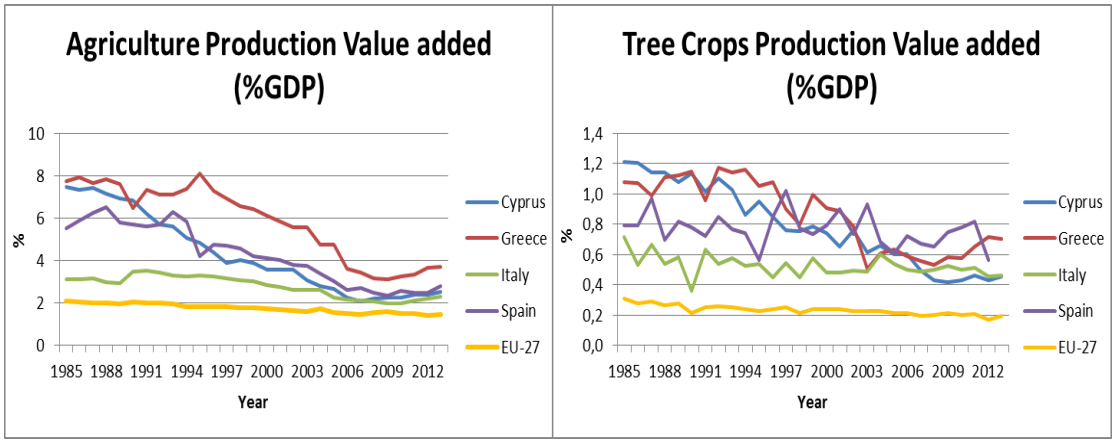

Figure 4.3: Agriculture and Tree Crops Production Value added as a percentage of total GDP for the time period 1985-2013

4.1.2 Employment Indicators

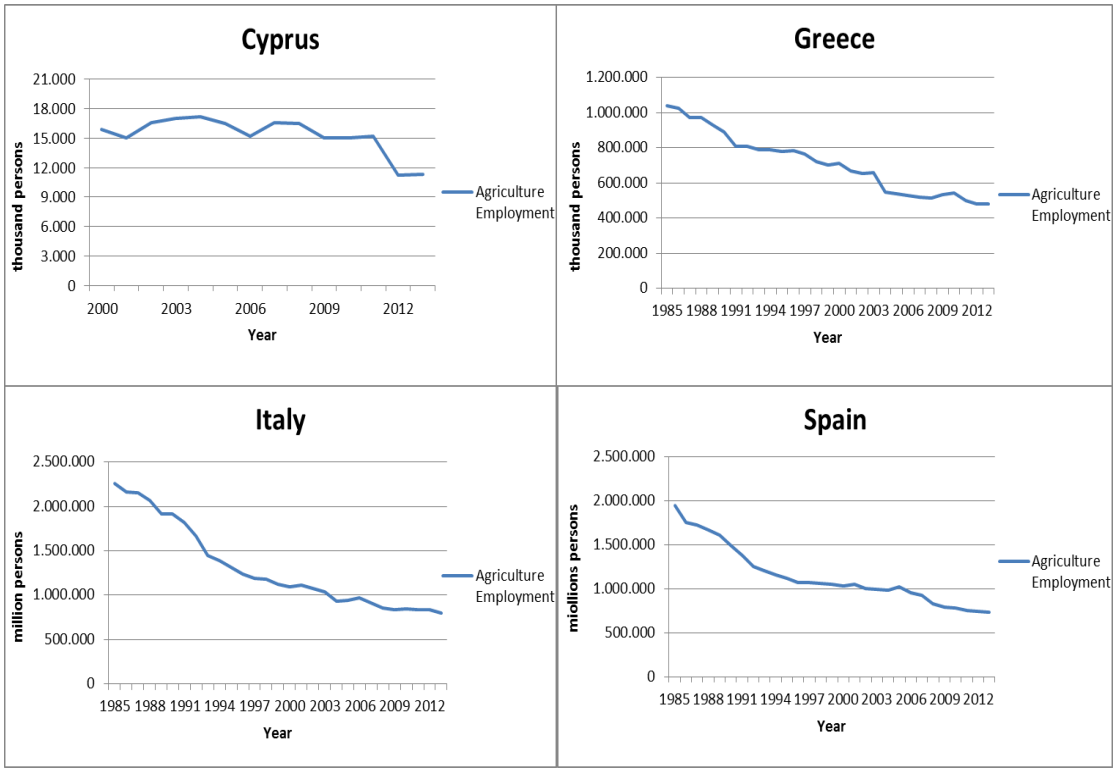

Figure 4.4: Employment in Agriculture Sector in number of persons for the time period 1985-2013

Figures 4.4 and 4.5 illustrate the employment in agriculture and tree crops sector in number of persons employed. Tree crops employment has been approximately calculated, given that employment in agriculture sector as well as the agriculture and tree crops area harvested (in

thousand hectares) are known. Specifically, tree crops employment is given by the following formula:

$$Tree\ Crops\ Employment = \frac{Employment\ in\ Agriculture\ x\ Tree\ Crops\ Area}{Agricultural\ Area}$$

Over the years, agriculture and tree crops employment have dramatically decreased in all examined countries. The number of persons employed in agriculture sector in Greece, Italy and Spain has exhibited an aggregate decrease of 53.6%, 64.5%, and 62.2% respectively during the time period 1985-2013. The cumulative percentage of decrease of agriculture sector employment in Cyprus during the time period 2000-2013 reaches 28.9%. The number of persons employed in tree crops production has been gradually decreasing under the examined time period. In Greece Italy and Spain, the number of persons in tree crops production sector has been decreasing, reaching 65.000, 96.000 and 99.000 employees respectively. During the period 2000-2013, number of persons employed in tree crops production sector in Cyprus has been diminishing by an aggregate of 8.9%.

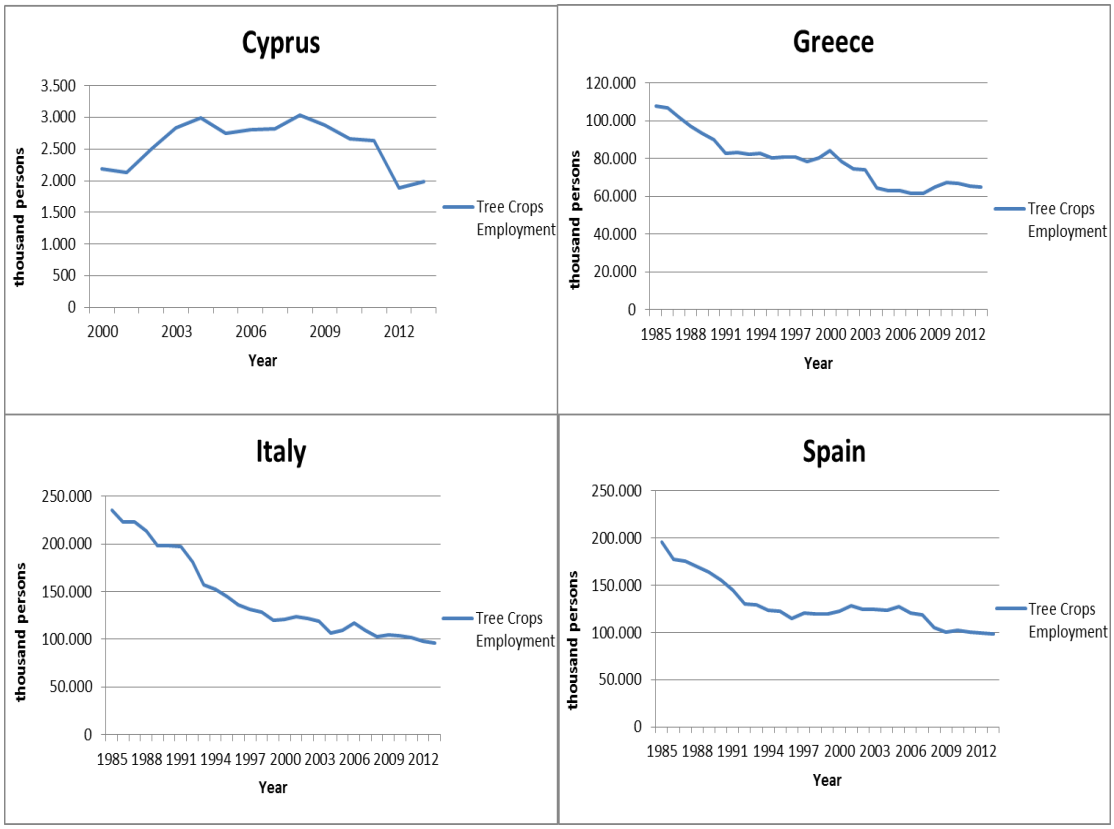

Figure 4.5: Employment in Tree Crops production in number of persons for the time period 1985-2013

The economic importance of the employment in agricultural sector and consequently in tree crops sector at the national level has diminished over the years for all examined countries (Figure 4.6). However, the contribution of both agriculture and tree crops employment to the total country's' employment is mainly higher than the EU-27 average share. Since 1985, the

contribution of agriculture employment in Italy and Spain has been gradually decreasing reaching in 2013, 3.4% and 4.2% respectively. It is notable that since the financial crisis of 2008, the agriculture employment increased only in Greece from 10.8% in 2008 to 13.3% in 2013.

During the period 2000-2013, agriculture employment to total employment ratio in Cyprus has been steadily diminished reaching 2.5% in 2013. In terms of total employment, tree crops sector in almost all counties under investigation, has also seen its share diminishing over time. However, as in the case of agriculture employment, tree crops employment to total employment ratio in Greece has substantially increased since the world financial crisis of 2008 by an average of 0.4%. In 2013, tree crops share in total employment in Cyprus, Greece, Italy and Spain accounted for 0.4%, 1.8%, 0.4% and 0.6% respectively, much higher than the corresponding EU-27 average share of 0.1%. Agricultural share in total employment decreased from 17.2% in 1980 to 4.5% in 2007.

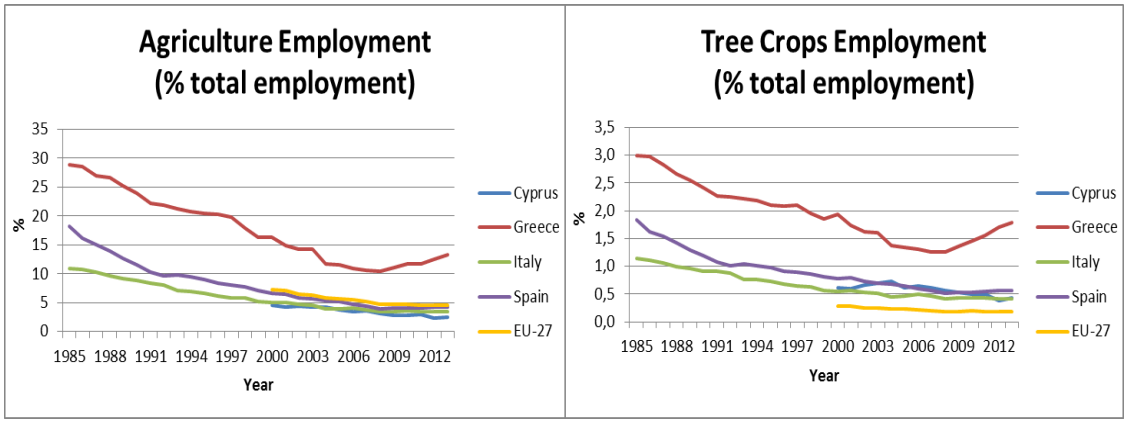

Figure 4.6: Agriculture and Tree Crops Employment as a percentage of total employment for the time period 1985-2013

4.1.3 Trade Indicators

Figures 4.7 and 4.8 show agriculture and tree crops balance of trade respectively, for the countries under investigation, during the period with available data (1985-2013). Agriculture trade refers to imports and exports of food and agriculture products, excluding fishery and forestry products. Agriculture's balance of trade is negative in Cyprus, Greece and Italy in almost all the examined period. Since 1995, a trade surplus is exhibited in Spain. On the other hand, tree crops imports and exports follow a similar upward trend in all countries. All countries display a tree crops trade surplus indicating that their export rate exceeds their imports rate.

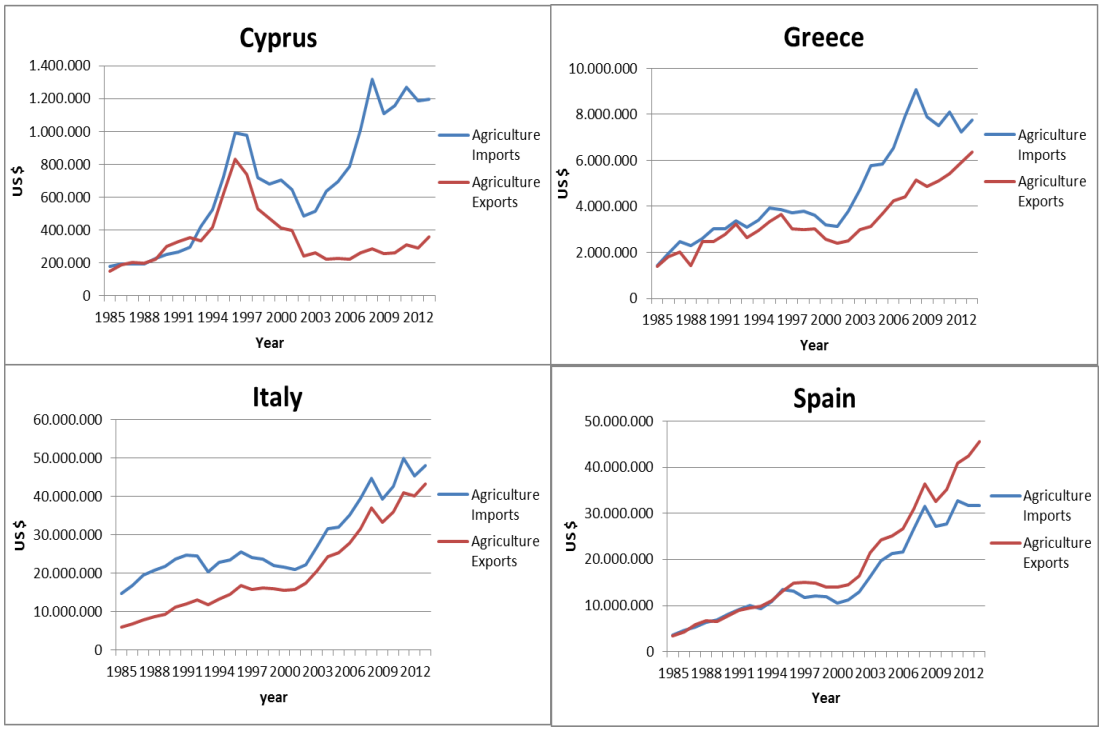

Figure 4.7: Imports and Exports of Agriculture Production for the time period 1985-2013

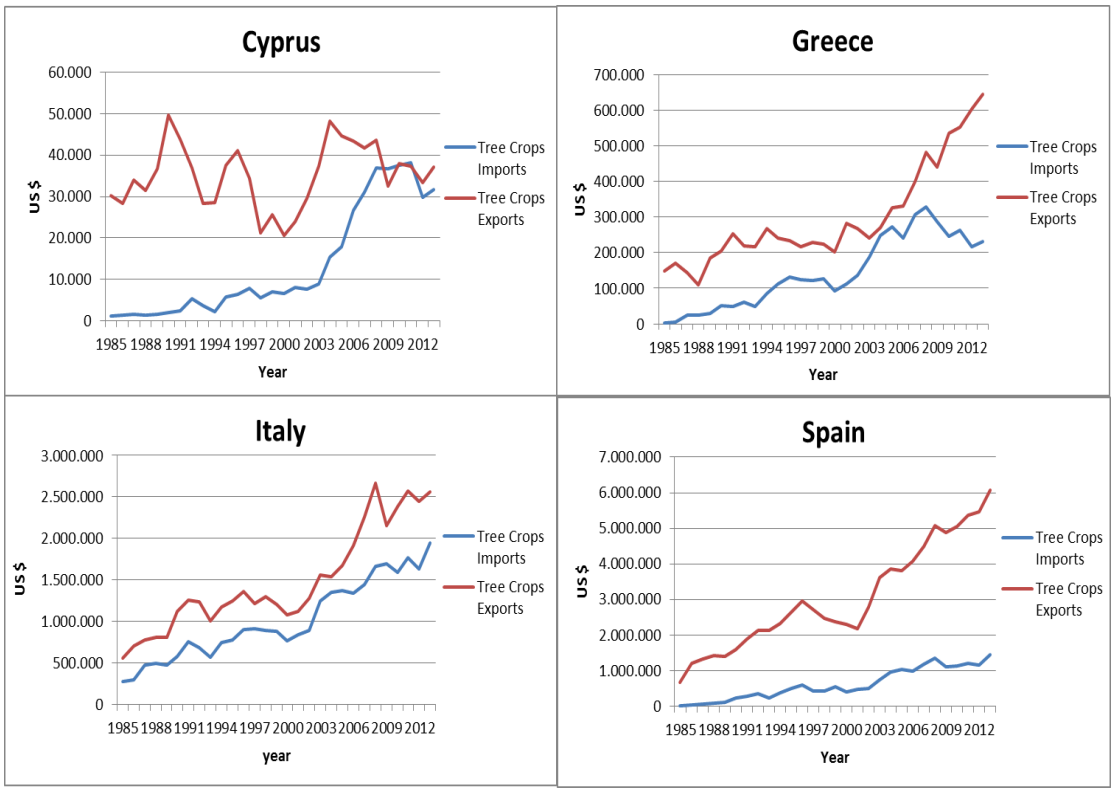

Figure 4.8: Imports and Exports of Tree Crops Production for the time period 1985-2013

In terms of total imports and exports, agriculture has seen its share wildly fluctuated over the years in all the examined countries (figure 4.9). During the period 1985-2007, the share of agriculture's imports to total imports has been lower than the associated EU-27 average level. However, since 2008 the contribution of agriculture's imports to total imports has been higher than EU-27 average share. In 2013, agriculture imports to total imports ration in Cyprus, Greece, Italy and Spain accounted for 12.7%, 12.8%, 10,8% and 10.3% respectively, significantly higher than the EU-27 average share of % 8.9%.

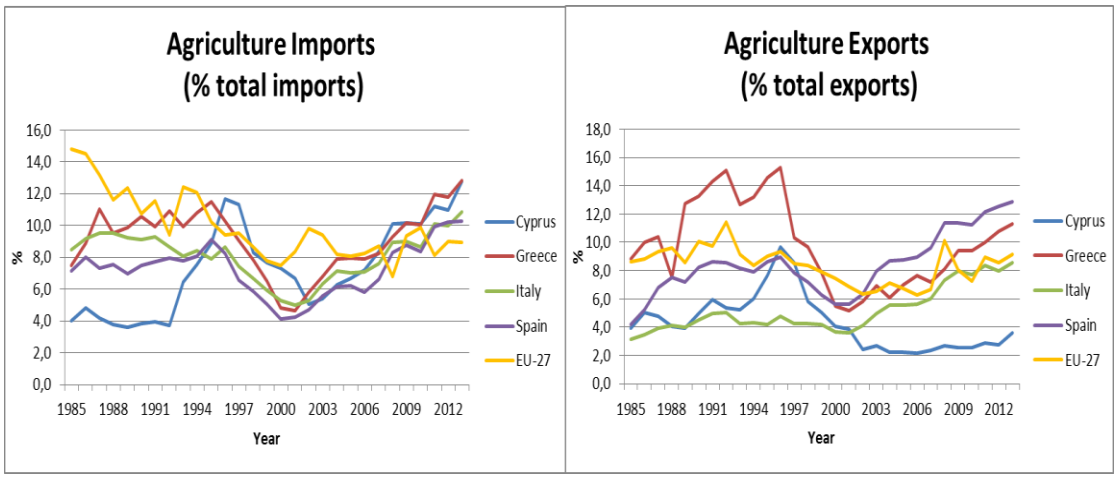

Figure 4.9: Agriculture Imports and Exports as a percentage of total imports and exports for the time period 1985-2013

The contribution of tree crops trade to the total agricultural trade is highly significant in all the examined countries (figure 4.10). During the years 1985-2013, tree crops imports share has been following an upward trend in all countries. In 2013, the share of tree crops imports in Cyprus, Greece, Italy and Spain, accounted for 2.6%, 2.9%, 4.4% and 4.5% respectively, significantly below than the average EU-27 share of 5%. On the contrary, during the period 1985-2013, tree crops exports to agricultural exports ratio trend has remained relatively constant in Greece and Italy while it has significantly decreased in Spain.

The contribution of tree crops export to total agriculture exports in Greece has slightly changed from 10.7% in 1985 to 10.1% in 2013. On the other hand, a substantial decrease of tree crops exports to agricultural exports ratio, is exhibited in cases of Spain and Cyprus. In Cyprus, during 1985-2013 the contribution of tree crops exports to agricultural ones, has nearly halved ranging from 20.6% in 1985 to 10.3% in 2013, while at the same time period the associated tree crops contribution in Spain, has decreased from 19.6% in 1985 to 13.2% in 2013. It is notable, that the trends of tree crops exports share to total agricultural exports have been above the average EU-27 share throughout the examined years (1985-2013), indicating that tree crops exports play a pivotal role to countries' agricultural trade.

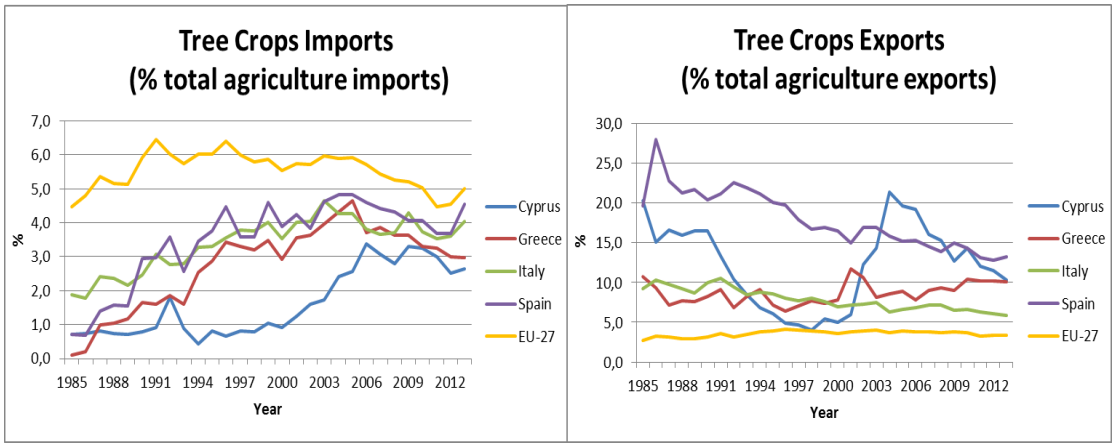

Figure 4.10: Tree Crops Imports and Exports as a percentage of total agriculture imports and exports for the time period 1985-2013

4.2. The role of CAP as a socioeconomic parameter of tree crop categories in South Europe

A socioeconomic parameter of outmost importance affecting the development of permanent tree crops in South Europe is the Common Agricultural Policy (CAP). According to the Treaty of the Functioning of the European Union (TFEU) Article 39 the main objectives of the CAP can be summarized in the following:

(a) increase agricultural productivity,

(b) ensure a fair standard of living for the agricultural community,

(c) Stabilize markets,

(d) assure the availability of supply and

(e) ensure that supplies reach consumers at reasonable prices.

Since 1962, the European agricultural sector receives financial support through the Common Agricultural Policy (CAP). Although the EU CAP budget has followed a downward trend, from 50 per cent of the EU budget in 2007 to 42 per cent in 2013 with an estimation of 35 per cent in 2020, it is still the largest segment of the EU budget, absorbing about €55.5 bn annually during 2014 -2020. The CAP is financed through two distinct funds; a) the European Agricultural Guarantee Fund (EAGF) and b) the European Agricultural Fund for Rural Development (EAFRD). Noteworthy, the EAFRD is part of the Common Strategic Framework9 (CSF) where Rural Development (RD) priorities already translate and feed into the CSF thematic objectives.

CAP has undergone various reforms throughout the years affecting the socioeconomic status of tree crops of S. Europe in various ways. The funding mechanism supported by CAP is directed through two distinct pillars:

I. The Direct Payments to farmers

II. The Rural Development Policy

4.2.1 The Direct Payments to farmers

Following the 2003 CAP reform payments to farmers are made through the single payment scheme (SPS) and the single area payment scheme for new Member States. It should be noted that a new regulation, Regulation (EU) No 1307/2013, defines the direct payments system with effect from January 2015 (EP, 2016a).

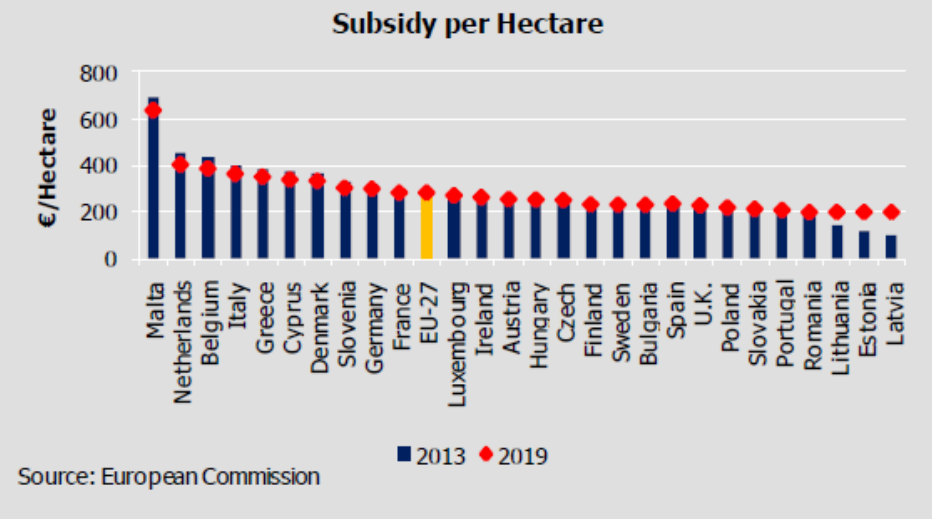

Figure 4.11: EU Subsidies per Hectare (2013, 2019)

The layout of direct subsidy payments supported by the 1st pillar from 2015 on, can be summarized in the following axis:

1. Basic Payment Scheme / Single Area Payments Scheme
2. Schemes for the redistribution of basic payments
3. Young farmers scheme
4. Greening
5. Coupled payments
6. Areas with Natural Constraints/Less Favoured Areas (ANCs/LFAs)
7. Active farmers
8. Eligible hectares
9. Small farmers scheme
10. Cross-compliance
11. Budgetary and financial discipline mechanism
12. The Integrated Administration and Control System

Table 4.2: 2009 overall budget (European Agricultural Guarantee Fund)

Policy	Objectives	Main Instruments	2009 Expenditure
Market Interventions	Raise and stabilise market prices	Intervention buying; export subsidies	3,410
Coupled Subsidies	Increase production of selected goods	Production premia; area payments	4,846
Direct Income Support	Reward farmers' historic support entitlements	Single Farm Payment; Single Area Payment	31,295

Source: Financial Report from the Commission to the European Parliament and the Council on the European Agricultural Guarantee Fund 2009 Financial Year.

4.2.2. The Rural Development Policy

The second pillar of CAP, Rural Development Policy was established by the Agenda 2000 bringing rural development under a single regulation to apply across the whole of the European Union for the period 2000-2006. Through the second pillar apart from agricultural restructuring, emphasis was also given on environmental concerns and the wider needs of rural areas.

Rural Development Policy is financed by the European Agricultural Fund for Rural Development (EAFRD) aiming to contribute to the implementation of the Europe 2020 Strategy (for the promotion of growth and employment) by enhancing sustainable rural development. According to the EU policy reports (EP, 2016b) *"The EAFRD is intended to help develop an agriculture which is balanced from the regional and environmental points of view, avoids damaging the climate, and is resilient in a context of climate change, as well as being competitive and innovative"*. Support is provided for rural development programs defined at national and/or regional level, which for a certain number of years set out the measures to be undertaken and the funding allocated to each of these measures, substituting in this way the former rural development policy which was essentially sectorial (dealing mainly with agricultural structures), with limited territorial aspects.

Table 4.3: 2009 overall budgets (European Agricultural Fund for Rural Development)

Policy	Objectives	Main Instruments	2009 Expenditure
Axis 1	Improving the competitiveness of the agricultural and forestry sector	Modernization of agricultural holdings; adding value to agricultural and forestry products; infrastructure	2,626
Axis 2	Improving the environment and the countryside	Agri-environmental payments; payments to farmers in areas with handicaps	4,741
Axis 3	Improving the quality of life in rural areas and encouraging diversification of the rural economy	Village renewal and developments; basic services for the economy and rural population; business creation and development	364

Source: Financial Report from the Commission to the European Parliament and the Council on the European Agricultural Fund for Rural Development 2009 Financial Year.

4.2.3 The Reformation of CAP for the period 2014-2010

The strategic framework of CAP for the period 2014-2020, maintains the existence of two pillars, but tightens up the links between them, aiming to a more holistic and integrated approach to policy support. Its target is the introduction of a new scheme for direct payments that is focusing on targeted, fairer and greener subsidies. The Regulation (EU) No 1307/2009, provides a single legal basis and lays down comprehensive rules for direct payments to farmers, replaced the Council Regulation (EC) No 73/2009 and Council Regulation (EC) No 637/2008.

The new Common Agricultural Policy is expected to contribute towards the maintenance of employment in rural areas and the generation of growth along the various sectors of food chain. The simplification of the CAP aims to contribute towards the increase of competitiveness and the reduction of the administrative burden, serving both the farmers and national authorities. The new CAP provides a wide range of obligatory and voluntary instruments of direct payments for active farmers, such as basic payment, greening payment,

young farmers scheme, small farmers scheme, redistributive payment, coupled support and support in areas facing natural constraints. Concerning Pillar I, Member States that currently maintain direct payment allocations based on historic references must move towards more similar levels of payment per hectare.

Pillar II also contributes to enhance the competiveness of all types of agriculture and improve the agricultural standing in the food chain. In particular, two of six Union priorities (specific objectives) for rural development explicitly aim at improving the competitiveness of the agricultural sector and farm viability, as well as at improving the integration of farmers into the food chain and management of risks. (EU, 2015)

4.2.4 The new CAP (2014-2020) and climate action

Another significant contribution of the new CAP is the reinforcement of its role in the sustainable management of natural resources and climate action, focusing on greenhouse gas emissions, biodiversity, soil and water.

Among the environmental challenges addressed by the new CAP special focus should be given to: greenhouse gas (GHG) emissions, soil depletion, water and air quality, habitats and biodiversity and the impact of climate change. For reaching this general objective, different instruments and measures are provided in Pillar I and Pillar II, respectively.

Pillar I:

For respecting certain agricultural practices which are beneficial for the climate and the environment, farmers will receive a green payment. This new compulsory greening instrument will ensure that farmers are adequately remunerated for providing environmental public goods and pursue climate change mitigation and adaption, one of the specific objectives under Pillar I. In addition, the existing cross-compliance system links all direct payments, certain rural development payments and certain wine payments to a number of statutory requirements relating to environment, climate change, good agricultural condition of land, human, animal and plant health standards and animal welfare. (EU, 2015)

Pillar II:

Under Pillar II, relevant priorities in relation to this general objective of the CAP are the ones referring to restoring, preserving and enhancing ecosystems as well as to promoting resource efficiency and the shift towards a low carbon and climate resilient economy. The measures that will mostly contribute these priorities are agri-environment-climate payments, support for organic farming, strengthened and streamlined support through investments, grants and annual payments for forestry activities, and payments for mountain areas and other areas facing natural and other specific constraints. It should be noted that, in the case of Pillar II, 30% of the EAFRD must be spent on measures related to land management and the fight

*against climate change. In addition, rural development measures related to knowledge transfer and innovation, will effectively contribute to the achievement of environmental priorities (as well as to the other priorities, given their horizontal nature). The European Innovation Partnership for Agricultural Productivity and Sustainability as well as the research activities under Horizon 2020, are also contributing to the a*chievement of this environmental-related general objective. (EU, 201**5)**

4.2.4 The role of CAP in Greece

Greece has been one of the member states with a high direct subsidy per cultivated land (€384/ha in 2013 vs. an EU average of €293/ha). However, its share in the EU CAP budget is expected to fall to 3.5 per cent in 2019 from 5.6 per cent in 2007 (about €2 bn annually for the period 2014-2020 compared with €2.5 bn during 2007- 2013) (NBOG, 2015).

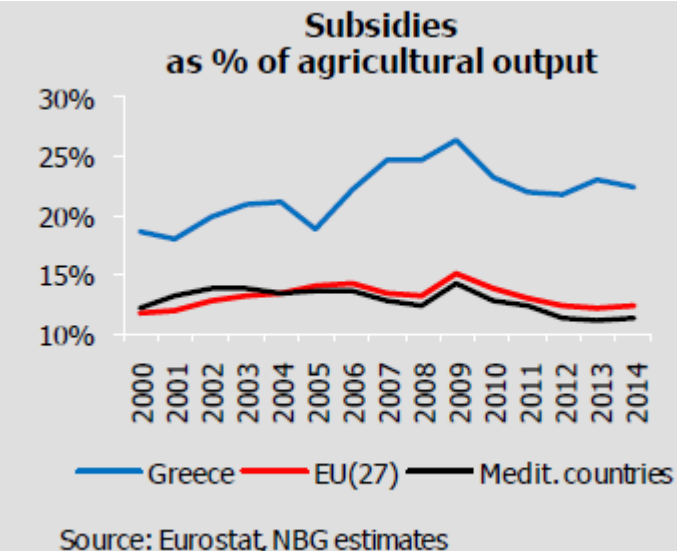

Figure 4.12: Subsidies as % of Agricultural output (Greece, EU 27, Med. Countries)

From 2000 to 2014 Greece has allocated 77 per cent of its available funds in Pillar I and 23 per cent in Pillar II, a structure similar to the previous programming period (2007-2013) but with certain changes, leading to the redistribution of Pillar I funds among Greek farmers.

Under the previous system, payments were solely based on declared production levels during 2000-2002 (irrespective of current level and type of activity) giving no motivation for new production. While to a large extent direct payments are still decoupled from production (apart from specific product that receive subsidies linked to production – absorbing 8 per cent of direct payments), now there are requirements of minimum activity (e.g. cultivation of at

least ½ of declared land per farmer) (NBOG, 2015). Additionally, for the first time the greatest part of pillar I (85 per cent) is divided in two distinct categories: i) the Basic Payment (55 per cent of annual payments); and ii) the Green Direct Payment (30 per cent of annual payments) which is only granted under certain environmental criteria.

With a view to achieving a gradual convergence of support per type of activity, the level of direct payments per farmer is determined based on the following allocation scheme:

i) arable land will absorb 47 per cent of funds (€420/ha),

ii) permanent crops will absorb 28 per cent (€500/ha)

iii) pastures (for livestock) will absorb 25 per cent (€250/ha),compared with 19 per cent of direct payments during 2007 -2013.

In general it can be claimed that, community grants and subsidies were a key pillar supporting the Greek agriculture over time. In the Greek sector of agriculture during the period 1982-2008, about 67 billion € EU funds flowed into the economy, the majority of which concerned Guarantee Expenditures (88%) and a considerably smaller section the Guidance Section expenditure (12%). In terms of the effect of CAP in permanent tree crops, it should be noted that Olive trees growing was one of the few cultivations that expanded significantly. However, it should be mentioned that Community aids presented severe imbalances in the individual products, creating significant distortions in the structure of crops. The cotton monoculture was spread in most fertile plains of the country with the adverse effects on the environment and natural resources. The olive cultivation which was significantly spread often turned from dry to watering cultivations. The decoupling of payments from production under the Mid Term Review of the CAP (2003/2004) eased these side effects, but also led to the abandonment of traditional crops such as tobacco and beets (Glynos et. al., 2014).

According to EU data, since 2007, CAP has invested more than 19.5 billion € in Greece's farming sector and rural areas with the objective of stabilizing farmers' income, modernizing and increasing the sustainability of Greek farms and securing the supply of safe, affordable and quality food for its citizens. In 2012 Greece spent over 2.315 million € on direct payments, benefiting almost 700.000 beneficiaries, 81,4% of whom received a payment below 5.000€. CAP's EU spending for 2012 is estimated around 66 997 million €, a high percentage of which was attributed to food programs, fruit and vegetables, olive oil and wine sectors (EU, 2015a).

Table 4.4, presents the average CAP subsidies for Pillars I and II, from 299€/hectare in 2008 to 343€/ hectare in 2013, while the payments in Pillar II range from 127 €/ hectare in 2008 to 113€/ hectare in 2013. Tables 8 and 9 of Annex II present an analytical breakdown of the CAP subsidies for all European countries for the years 2008 and 2013.

Tables 6 and 7 of Annex II present an analytical breakdown of the CAP subsidies for all European countries for the years 2008 and 2013. Greece appears to be among the countries with the higher per/hectare subsidies on average.

Table 4.4: CAP Subsidies for Greece, 2008-2013

Average Subsidies per ha crops in 2008:
Pillar I (Direct aids): 590 €/ha
Pillar 2: 114 €/ha
Average subsidies per ha crops in 2013:
Pillar I (Direct aids): 544 €/ha
Pillar 2: 165 €/ha

Source: www.reformthecap.eu/key-data-on-the-cap

According to EC reports (EU, 2015a), for the period 2014-2020, the new CAP is going to invest more than 19.51 billion € in Greece's farming sector and rural areas. The key political priorities of these reinforcements have been defined at European level: jobs, sustainability, modernization, innovation and quality. In parallel, certain flexibility has been given to Greece to adapt both direct payments and rural development programs to its specific needs. According to unofficial reports the direct payment through Pillar I for permanent tree crops will range from 400 to 500 € per hectare.

4.2.5 The role of CAP in Spain

Since 2007 the overall contribution of CAP funds invested in Spanish farmers is estimated in more than 47 billion €. The investments were targeted to Spain's farming sector and rural areas with the objective of stabilizing farmers' income, modernizing and increasing the sustainability of Spanish farms and securing the supply of safe, affordable and quality food for its citizens. In 2012 Spain received over 5.2 billion € on direct payments, given to approximately 890.000 beneficiaries, 74% of whom received a payment below 5000€. 2012's highest share of support was allocated to the wine and fruit and vegetables sectors.

According to EU estimates for the period 2014-2020 (EU, 2015b), the new CAP is foreseen to invest almost 45 billion € in Spain's farming sector and rural areas. Key political priorities have been defined at European level such as: jobs, sustainability, modernization, innovation and quality. Similar to the Greek case, flexibility is given to Spain to adapt both direct payments and rural development programs to its specific needs.

Table 4.5: CAP Subsidies for Spain, 2008-2013

Average Subsidies per ha crops in 2008:
Pillar I (Direct aids): 198 €/ha
Pillar 2: 62 €/ha
Average subsidies per ha crops in 2013:
Pillar I (Direct aids): 206 €/ha
Pillar 2: 52 €/ha

Source: www.reformthecap.eu/key-data-on-the-cap

As presented in Table 4.5, average CAP direct subsidies ranged from 198€/hectare in 2008 to 206€/ hectare in 2013, while the payments in Pillar II range from 62 €/ hectare in 2008 to 52€/ hectare in 2013. An indicative table of the available (pillar I) CAP subsidies in some of Spain's tree crops are presented in Annex II table 1. In addition, the total average subsidies for olive tree cultivation in all the Spanish regions for the years 2007-2008 are estimated around 76 € per hectare. An analytical table of olive tree cultivation subsidies is presented in table 2 of Annex II.

4.2.6 The role of CAP in Italy

Italy is another S. European country highly benefited by CAP. It is estimated that since 2007 EU invested 40.5 billion € in Italy's farming sector and rural areas with key objectives being: the stabilization of farmers' income, modernization and increase of the sustainability of Italian farms and securing the supply of safe and the provision of affordable and quality food for Italian citizens (EU, 2015c).

For the period 2014-2020, it is estimated that CAP is going to invest around 37.5 billion € in Italy's farming sector and rural areas (EU, 2015c). Key political priorities have been defined at European level such as: jobs, sustainability, modernization, innovation and quality. In parallel, flexibility is given to Italy to adapt both direct payments and rural development programs to its specific needs.

Regarding direct payments, it should be mentioned that in 2012 Italy received over 4 billion €, allocated to more than 1.2 million beneficiaries, around 64% of whom received a payment below 1250 €. Among the sectors more highly benefited were the wine and fruit and vegetables sectors, as well as food programs and the olive oil sector (EU, 2015c).

As it can be seen in Table 4.6, the average CAP direct subsidies range from 299€/hectare in 2008 to 343€/ hectare in 2013, while the payments in Pillar II range from 127 €/ hectare in 2008 to 113€/ hectare in 2013.

Table 4.6: CAP Subsidies for Italy, 2008-2013

Average Subsidies per ha crops in 2008:
Pillar I (Direct aids): 299 €/ha
Pillar 2: 127 €/ha
Average subsidies per ha crops in 2013:
Pillar I (Direct aids): 343 €/ha
Pillar 2: 113 €/ha

Source: www.reformthecap.eu/key-data-on-the-cap

The average subsidies for olive tree cultivations for the years 2008-2010 is estimated around 422 € per hectare. Table 5 of Annex II present the overall subsidies for a selection of tree crop categories in various Italian regions.

4.2.7 The role of CAP in Cyprus

Since 2007 CAP is estimated to have invested more than 3.922 million € in Cyprus's farming sector and rural areas with the objective of stabilizing farmers' income, modernizing and increasing the sustainability of Cypriot farms and securing the supply of safe, affordable and quality food for its citizens (EU, 2015d).

According to the same EU estimates (EU, 2015d), during the 2014-2020 period, the new CAP is expected to invest more than 4.851 million € in Cyprus's farming sector and rural areas. Key political priorities have been defined at European level such as: jobs, sustainability, modernization, innovation and quality. In parallel, flexibility is given to Cyprus to adapt both direct payments and rural development programs to its specific needs. In 2012, the EU spent around 6.856 million € on market measures in Cyprus. The biggest share of which went to the wine and fruit and vegetables sectors, as well as to milk and milk products (EU, 2015d).

Table 4.7: CAP Subsidies for Cyprus, 2008-2013

Average Subsidies per ha in 2008:
Pillar I (Direct aids): 133 €/ha
Pillar 2: 170 €/ha
Average subsidies per ha in 2013:

Pillar I (Direct aids): 366 €/ha
Pillar 2: 144 €/ha

Source: www.reformthecap.eu/key-data-on-the-cap

As it can be seen in Table 4.7, the average CAP direct subsidies in Cyprus range from 133€/hectare in 2008 to 366€/ hectare in 2013, while the payments in Pillar II range from 170 €/ hectare in 2008 to 144€/ hectare in 2013.

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ANNEX I: Detail presentation for the monthly average values per decade for each region.

Table I.1: Daily average observation temperature in South Greece (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	11.8	11.2	11.0	11.3	11.4	-
(min-max)	9.8-13.8	10.2-12.7	9.4-12.0	9.6-12.7	9.6-13.4	-
February	12.0	11.8	11.1	11.1	11.6	-
(min-max)	9.3-15.0	10.2-13.4	9.7-13.8	9.1-12.4	8.9-13.2	-
March	13.3	12.8	13.1	12.5	12.9	-
(min-max)	11.4-14.6	12.0-13.8	11.7-14.3	9.5-13.6	11.2-16.1	-
April	16.0	15.8	15.5	16.3	15.6	-
(min-max)	15.5-17.2	14.0-16.9	14.4-16.5	14.5-17.7	13.3-16.8	-
May	19.9	20.0	19.7	19.4	20.3	-
(min-max)	18.6-21.4	18.4-22.7	18.7-20.8	18.1-20.8	19.3-21.2	-
June	23.9	24.0	23.7	23.9	24.9	-
(min-max)	22.9-24.9	23.2-24.4	22.4-25.2	22.9-24.9	24.1-25.6	-
July	26.0	25.8	25.7	26.0	27.1	-
(min-max)	24.8-26.8	24.4-26.9	25.1-26.6	24.9-27.7	26.0-27.9	-
August	26.3	25.8	25.2	26.1	26.8	-
(min-max)	25.5-27.2	25.0-27.0	24.1-26.2	25.3-27.6	25.2-27.6	-
September	23.2	23.3	23.0	23.6	23.8	-
(min-max)	22.1-24.1	24.2-22.5	22.0-24.2	22.4-25.3	22.0-24.9	-
October	19.9	19.2	19.7	19.7	20.1	-
(min-max)	17.3-21.8	17.7-22.0	17.7-21.7	17.3-22.4	18.2-21.7	-
November	17.0	15.9	15.5	15.6	16.2	-
(min-max)	15.5-18.0	14.8-17.7	13.8-17.4	13.7-17.4	13.9-17.5	-
December	13.8	12.9	12.8	12.3	13.0	-
(min-max)	12.0-15.0	11.7-14.0	11.5-14.5	9.3-13.9	11.2-14.5	-

Table I.2: Daily average observation temperature in Central Greece (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	10.7	10.2	9.9	10.3	9.2	-
(min-max)	7.8-13.3	8.7-11.9	8.8-11.1	8.4-11.8	5.9-11.4	-
February	11.2	11.1	10.1	9.9	9.7	-
(min-max)	8.5-14.2	9.2-14.0	8.1-13.4	7.8-11.5	5.4-1.2	-
March	12.6	12.1	12.5	12.1	11.5	-
(min-max)	9.3-14.0	10.8-12.8	10.9-14.0	8.4-13.9	9.1-15.4	-
April	16.4	15.8	15.6	16.4	15.0	-
(min-max)	14.8-18.3	14.2-17.4	14.1-16.6	14.5-18.1	12.8-16.5	-
May	20.9	20.8	20.4	20.3	20.7	-
(min-max)	19.4-22.5	19.0-23.4	18.9-21.4	18.4-21.9	18.9-22.3	-
June	25.5	25.0	24.9	25.2	25.9	-
(min-max)	24.7-26.8	24.5-26.1	23.6-26.3	23.9-25.9	24.7-26.8	-
July	28.4	27.6	27.5	28.4	28.2	-
(min-max)	27.7-28.9	26.4-28.6	26.5-28.4	27.0-30.4	27.3-29.0	-
August	28.7	27.6	26.7	28.4	27.4	-
(min-max)	26.9-29.8	26.2-29.1	25.0-28.1	27.5-29.7	26.4-28.3	-
September	24.1	24.3	23.9	24.7	22.9	-
(min-max)	23.1-25.7	23.0-25.2	21.9-25.6	23.8-27.4	21.7-24.6	-
October	19.9	19.3	19.4	19.5	18.6	-
(min-max)	16.9-22.0	17.5-22.8	18.0-21.6	17.6-21.8	17.4-19.6	-
November	16.4	15.5	14.8	14.5	14.2	-
(min-max)	14.8-18.0	14.2-17.4	13.3-17.1	12.2-16.8	12.6-16.1	-
December	12.7	12.1	11.9	11.2	10.7	-
(min-max)	10.7-15.2	10.3-13.8	9.9-14.2	7.8-13.3	7.0-13.5	-

Table I.3: Daily average observation temperature in North Greece (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	7.6	7.5	7.0	7.4	6.1	-
(min-max)	5.1-11.0	4.6-9.8	5.1-8.4	5.9-9.6	2.4-8.6	-
February	8.6	8.7	8.3	8.1	7.3	-
(min-max)	6.3-11.6	5.3-11.0	6.6-11.2	5.7-9.6	2.3-10.4	-
March	10.6	10.4	11.1	10.8	9.7	-
(min-max)	8.1-12.0	8.6-11.1	9.8-12.4	6.7-12.6	7.3-13.6	-
April	14.3	14.5	14.0	14.9	13.5	-
(min-max)	12.4-16.3	12.9-16.1	12.8-15.8	13.3-16.4	11.4-15.6	-
May	19.7	19.8	19.3	19.4	19.6	-
(min-max)	18.4-21.3	18.0-21.9	17.4-20.8	16.7-21.5	17.0-21.2	-
June	25.5	24.2	24.2	24.5	24.9	-
(min-max)	23.1-25.8	23.2-25.3	22.5-25.8	22.9-25.1	23.1-25.6	-
July	27.1	26.5	26.3	27.0	27.0	-
(min-max)	26.2-28.1	25.4-27.3	25.6-27.3	25.6-29.8	26.2-27.8	-
August	27.1	26.2	25.1	26.7	26.1	-
(min-max)	25.2-28.4	24.8-27.6	23.0-26.1	25.4-27.9	24.6-27.5	-
September	22.1	22.2	21.9	22.8	21.0	-
(min-max)	20.6-23.7	20.5-23.0	20.2-23.5	21.9-24.9	19.0-21.9	-
October	17.4	16.9	17.5	17.8	16.4	-
(min-max)	14.4-18.7	14.0-20.4	15.7-19.3	15.8-19.8	15.4-17.5	-
November	13.5	12.5	12.0	12.1	11.4	-
(min-max)	12.1-14.6	11.0-13.6	9.5-13.9	9.2-13.9	9.8-13.2	-
December	9.4	8.6	9.0	7.9	7.2	-
(min-max)	7.5-11.2	7.2-9.9	7.5-10.8	4.8-10.3	1.6-11.0	-

Table I.4: Daily average observation temperature in South Italy (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	9.7	10.0	9.5	9.6	10.1	10.7
(min-max)	8.1-12.3	8.7-11.2	7.6-10.7	7.8-11.4	8.3-11.4	9.7-12.4
February	10.1	10.2	9.9	10.0	10.4	10.3
(min-max)	6.4-12.1	7.1-12.3	8.3-12.0	8.4-11.8	8.5-11.9	9.0-12.6
March	11.5	11.3	11.6	11.8	12.2	12.1
(min-max)	10.3-13.0	9.3-13.1	10.5-12.9	9.0-13.3	10.9-15.5	11.0-13.0
April	13.8	13.9	13.4	14.1	14.4	15.0
(min-max)	12.6-15.8	12.2-15.3	12.2-14.7	12.7-14.7	12.2-15.8	14.2-15.4
May	17.5	17.6	17.2	18.1	19.1	19.1
(min-max)	16.3-18.6	16.4-19.0	15.9-18.2	15.2-19.5	16.9-21.1	19.9-18.6
June	21.3	21.3	21.5	22.0	23.3	22.6
(min-max)	19.9-22.4	20.0-22.6	20.3-23.9	21.1-22.9	21.8-26.4	22.0-23.2
July	24.0	23.9	24.1	25.2	25.7	25.6
(min-max)	22.9-25.1	22.9-24.8	22.5-26.2	23.9-26.8	24.3-28.2	25.4-26.0
August	24.3	24.4	24.1	25.9	26.2	25.9
(min-max)	23.5-25.0	22.9-26.3	22.5-25.3	24.3-27.7	24.9-28.8	25.0-26.4
September	21.7	21.7	21.7	22.9	22.4	23.1
(min-max)	20.9-22.7	20.1-22.8	20.4-23.4	21.8-24.8	20.4-23.4	22.9-23.5
October	17.8	17.8	18.1	19.0	18.9	19.4
(min-max)	16.6-18.9	15.1-19.7	17.3-18.8	17.2-20.3	17.2-21.5	17.6-20.8
November	14.2	14.0	13.4	14.2	14.7	15.3
(min-max)	12.9-15.7	12.4-15.5	11.8-15.1	12.8-15.5	12.8-16.3	14.1-16.1
December	11.2	10.8	10.8	10.8	11.5	12.2
(min-max)	9.5-12.8	9.5-11.9	8.9-11.6	8.7-12.1	9.3-13.8	11.7-13.6

*Data up to 2009

Table I.5: Daily average observation temperature in Central Italy (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	7.9	7.6	7.2	7.0	7.5	7.5
(min-max)	5.6-10.8	5.6-9.4	4.4-9.4	4.0-9.5	5.3-9.9	5.5-9.5
February	8.6	8.5	8.2	7.9	8.2	7.9
(min-max)	3.6-10.5	4.7-11.3	5.8-11.0	6.2-10.1	5.4-10.2	5.9-9.8
March	10.6	10.1	10.3	10.4	10.5	10.5
(min-max)	8.8-13.3	7.6-12.2	8.8-12.2	6.4-12.4	9.1-13.3	9.8-11.2
April	13.4	12.9	12.2	12.7	13.2	14.2
(min-max)	11.7-15.2	11.0-14.4	10.6-13.5	11.2-13.4	10.6-14.2	12.6-15.5
May	17.4	17.2	16.6	17.2	18.1	18.9
(min-max)	16.0-19.2	15.3-18.4	14.5-18.5	13.7-19.3	16.1-20.6	18.3-20.2
June	21.3	20.9	20.8	20.9	22.4	22.5
(min-max)	19.8-22.8	19.4-22.7	19.3-22.5	20.0-22.5	19.6-26.1	21.1-23.0
July	24.1	23.7	23.5	24.8	24.6	25.7
(min-max)	23.1-25.3	22.5-25.3	21.7-25.3	23.4-26.2	23.2-26.7	25.0-26.9
August	24.2	24.0	23.2	25.4	25.0	25.2
(min-max)	23.0-25.4	223-26.2	22.1-24.4	24.3-27.2	23.6-27.9	23.5-27.3
September	21.1	20.1	20.3	21.6	20.5	21.6
(min-max)	20.1-22.3	18.6-22.2	18.1-22.8	20.2-23.9	17.9-22.0	20.6-23.0
October	16.4	15.9	16.1	17.1	17.3	16.8
(min-max)	15.3-18.2	12.5-18.6	15.1-16.8	14.9-18.7	15.2-19.6	15.3-18.1
November	12.5	12.0	10.8	11.5	12.6	11.8
(min-max)	11.0-14.5	10.1-13.6	8.1-12.3	9.1-13.3	10.4-14.3	10.6-12.8
December	9.0	8.1	8.6	7.8	9.0	8.2
(min-max)	6.2-11.1	6.4-9.9	6.0-10.2	4.9-9.5	6.4-10.5	7.0-9.9

*Data up to 2009

Table I.6: Daily average observation temperature in North Italy (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	2.0	2.6	3.0	3.0	3.9	5.6
(min-max)	-0.7-4.5	0-5.2	0.6-4.5	-1-5.8	2.5-4.6	3.7-8.0
February	4.2	5.3	4.6	5.0	6.0	7.2
(min-max)	-2.7-7.8	2.5-8.1	2.8-6.4	1.9-8.5	3.6-8.4	4.7-9.3
March	8.3	8.9	9.1	9.9	10.1	11.1
(min-max)	5.6-11.7	6.4-10.8	6.9-10.8	6.5-12.8	7.1-12.0	9.7-12.6
April	13.0	12.8	12.5	12.9	13.5	15.6
(min-max)	10.3-16.0	11.3-15.4	11.2-14.0	11.8-13.9	12.4-14.8	13.5-18.8
May	17.6	17.5	16.7	18.3	19.0	20.3
(min-max)	15.0-20.0	15.5-19.0	13.9-18.2	14.7-21.0	16.8-21.0	19.5-21.0
June	21.5	21.0	21.5	21.4	23.0	23.8
(min-max)	19.9-23.2	19.7-22.8	20.4-23.2	20.4-23.5	20.0-27.1	22.6-24.3
July	24.0	23.8	24.0	24.9	27.8	25.9
(min-max)	22.0-25.4	22.5-25.0	22.7-26.9	23.4-26.4	22.9-26.6	24.8-27.9
August	23.5	23.0	22.7	25.1	25.0	24.4
(min-max)	22.1-25.7	21.0-25.5	20.3-24.7	23.7-26.3	22.8-28.9	22.6-26.2
September	19.9	19.1	19.7	20.6	19.6	20.9
(min-max)	18.2-22.4	15.8-20.8	17.1-21.7	18.8-22.6	16.5-21.7	18.7-22.5
October	13.9	13.7	14.2	14.5	15.0	15.7
(min-max)	13.1-15.2	9.8-15.4	13.5-15.3	12.9-16.8	13.1-17.1	14.4-17.6
November	8.5	8.0	7.7	7.9	9.0	10.4
(min-max)	6.3-11.3	6.1-9.4	6.2-9.0	6.2-10.0	7.2-11.4	8.8-11.2
December	3.5	2.8	3.9	4.2	4.8	5.9
(min-max)	1.7-5.1	1.4-4.4	2.8-5.4	2.6-5.2	2.5-6.9	4.2-7.7

*Data up to 2009

Table I.7: Daily average observation temperature in South Spain (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	11.7	12.1	12.5	12.4	13.3	12.9
(min-max)	9.8-13.9	11.1-13.8	11.3-13.7	11.7-13.5	11.5-14.3	11.6-13.8
February	12.4	12.4	13.2	13.4	14.0	13.1
(min-max)	8.9-14.0	11.4-14.4	12.1-14.2	12.0-15.2	12.5-15.2	11.2-14.7
March	14.1	13.5	14.5	15.1	15.7	15.1
(min-max)	13.0-15.2	12.2-15.0	13.3-16.2	14.0-16.1	14.7-16.9	14.4-15.5
April	15.7	15.4	15.7	16.1	16.9	17.2
(min-max)	14.6-17.4	14.0-16.8	14.2-17.2	14.5-17.5	15.9-17.9	16.0-18.3
May	18.9	18.2	17.7	18.8	19.3	19.7
(min-max)	17.2-20.6	16.5-19.9	16.6-18.7	17.6-19.7	17.9-20.5	18.6-20.6
June	21.4	20.9	21.2	21.7	22.9	22.8
(min-max)	20.5-22.6	19.7-22.7	19.7-22.5	19.9-22.5	22.0-23.9	21.7-23.9
July	24.4	24.0	23.9	24.8	24.8	25.2
(min-max)	23.4-25.0	22.9-24.7	22.2-24.9	24.0-26.0	23.6-25.5	24.4-26.1
August	24.7	24.4	24.2	25.4	25.3	25.7
(min-max)	24.0-25.8	23.5-25.0	22.4-25.3	24.7-26.2	24.2-26.5	24.7-26.5
September	23.0	22.1	22.9	23.5	23.2	23.4
(min-max)	21.5-24.5	20.6-23.3	21.6-24.5	21.5-24.9	21.9-24.1	22.8-23.9
October	19.0	19.0	19.3	19.7	20.4	20.7
(min-max)	17.1-20.1	17.7-21.0	18.1-21.4	18.1-21.1	19.2-21.3	19.6-21.7
November	14.7	15.1	15.9	16.2	16.4	16.3
(min-max)	13.5-16.3	13.3-16.3	14.1-17.7	15.1-17.3	15.1-17.9	14.5-17.7
December	12.1	12.1	13.6	13.8	14.1	13.7
(min-max)	10.3-14.2	11.0-13.1	12.3-14.9	12.9-15.4	12.8-15.3	12.5-14.7

Table I.8: Daily average observation temperature in Central Spain (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	6.3	6.1	6.5	5.9	7.0	6.9
(min-max)	3.9-9.3	4.6-8.7	5.5-8.2	4.0-8.5	4.5-8.4	5.5-8.6
February	7.1	6.6	7.5	7.6	8.3	7.5
(min-max)	2.0-9.6	4.6-9.5	5.7-8.8	6.1-10.7	6.4-9.8	4.9-9.6
March	9.8	8.3	9.4	10.2	10.8	10.3
(min-max)	8.4-11.9	5.7-10.8	7.2-11.5	8.3-11.9	9.1-12.6	9.1-11.1
April	11.9	11.1	11.3	11.4	12.4	13.3
(min-max)	10.7-14.0	9.8-12.2	10.1-13.3	8.9-13.3	11.1-14.3	11.8-15.3
May	16.3	14.9	14.2	15.8	16.2	16.9
(min-max)	14.2-18.9	13.1-17.2	11.1-16.1	13.8-17.4	14.6-17.5	14.3-18.5
June	19.6	19.0	19.5	20.0	21.5	21.3
(min-max)	18.1-21.3	17.3-21.2	17.1-21.2	16.8-21.4	19.2-24.0	19.6-23.4
July	23.3	23.0	22.8	24.1	23.8	24.4
(min-max)	22.0-24.8	22.2-24.6	20.0-24.2	23.0-25.5	22.1-24.8	23.2-25.9
August	23.1	22.6	22.5	24.2	24.0	24.2
(min-max)	21.6-24.5	21.1-23.9	20.2-24.1	23.0-25.3	22.5-25.8	23.2-25.4
September	20.2	18.9	19.9	20.5	19.9	20.7
(min-max)	17.8-22.23	16.6-21.5	17.9-21.7	18.0-22.7	17.8-21.5	19.6-21.8
October	14.3	14.4	14.7	14.8	15.6	16.4
(min-max)	12.6-15.9	11.5-17.2	12.7-16.1	12.2-16.6	14.3-17.1	14.7-18.2
November	9.0	9.2	9.9	10.3	9.9	10.6
(min-max)	6.8-10.4	6.7-11.6	7.6-12.5	8.8-11.9	7.9-12.0	8.6-12.6
December	6.2	5.9	7.4	7.4	7.4	7.2
(min-max)	4.7-8.9	3.5-7.4	5.2-8.9	5.5-10.0	4.7-9.1	6.3-8.1

Table I.9: Daily average observation temperature in North Spain (°C)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	6.7	7.0	6.9	6.4	7.9	5.9
(min-max)	4.5-9.5	5.7-8.4	4.1-8.7	4.1-8.7	5.4-9.3	4.3-7.8
February	7.4	7.5	8.1	8.1	8.7	6.2
(min-max)	1.6-10.3	5.3-10.4	6.6-11.4	6.6-11.4	6.9-10.2	3.5-9.9
March	10.1	9.0	9.5	10.2	11.1	9.0
(min-max)	8.6-12.7	6.7-10.7	7.7-11.7	8.4-11.8	8.9-12.7	7.3-11.4
April	11.8	11.2	11.2	11.2	12.2	11.7
(min-max)	10.7-13.4	10.5-12.6	10.0-13.3	8.5-13.1	11.0-13.7	9.4-13.4
May	15.4	14.3	13.5	15.1	15.5	14.7
(min-max)	13.8-17.1	12.8-15.6	11.3-15.2	13.2-16.8	14.3-16.4	11.3-16.8
June	18.3	17.5	17.9	18.1	19.4	18.7
(min-max)	17.0-19.8	16.0-18.7	16.0-20.3	15.9-19.1	17.7-21.7	16.5-21.2
July	21.0	20.5	20.5	21.4	21.1	21.1
(min-max)	19.9-22.0	19.6-21.6	18.5-22.0	20.0-22.7	20.2-22.3	19.0-23.7
August	20.9	20.4	20.4	21.6	21.8	21.0
(min-max)	19.0-22.3	18.9-21.9	18.6-21.6	20.1-22.9	20.1-24.4	22.3-19.8
September	19.2	17.9	18.5	19.0	18.7	18.3
(min-max)	17.3-21.2	15.9-19.9	19.8-17.0	16.7-21.2	16.9-19.8	16.7-20.2
October	14.3	14.6	14.4	14.4	15.4	14.8
(min-max)	12.8-15.6	10.7-17.0	13.1-15.4	12.4-15.9	13.8-17.1	12.7-17.1
November	9.4	9.9	10.0	10.4	10.3	9.5
(min-max)	7.9-11.2	7.9-12.2	8.3-12.8	8.8-12.2	8.6-11.7	12.9-7.1
December	6.9	7.0	7.7	8.0	8.0	6.1
(min-max)	5.3-8.8	4.8-8.4	5.3-9.1	5.4-10.9	4.9-10.0	4.9-7.4

Table I.10: Daily average observation precipitation in South Greece (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	3.7	4.4	3.8	2.7	4.5	4.5
(min-max)	1.6-5.2	2.7-6.1	1.1-11.6	0.9-4.8	2.1-6.7	1.0-8.3
February	2.7	3.3	3.6	2.5	3.3	3.8
(min-max)	0.3-6.1	1.0-6.5	1.1-5.8	0.6-4.6	0.6-8.2	0.4-10.1
March	2.2	2.2	2.2	1.9	3.1	1.3
(min-max)	0.4-3.6	1.1-3.1	0.5-4.8	0.0-4.3	0.8-5.6	0.6-2.0
April	1.2	1.0	1.2	0.8	1.2	1.0
(min-max)	0.1-3.6	0.2-1.8	0.3-2.0	0.1-2.6	0.3-2.6	0.1-1.8
May	0.6	0.3	0.5	0.5	0.3	1.0
(min-max)	0.0-1.9	0.0-0.6	0.0-1.4	0.0-1.4	0.0-0.7	0.0-4.6
June	0.2	0.1	0.2	0.1	0.0	0.1
(min-max)	0.0-0.8	0.0-0.6	0.0-0.7	0.0-0.5	0.0-0.1	0.0-0.4
July	0.0	0.0	0.0	0.0	0.1	0.0
(min-max)	0.0-0.0	0.0-0.0	0.0-0.3	0.0-0.0	0.0-0.5	0.0-0.0
August	0.0	0.1	0.0	0.0	0.1	0.0
(min-max)	0.0-0.1	0.0-0.3	0.0-0.3	0.0-0.4	0.0-0.8	0.0-0.0
September	0.8	0.7	0.5	0.6	0.8	0.9
(min-max)	0.2-1.7	0.0-3.7	0.0-3.0	0.0-3.8	0.1-2.4	0.0-2.0
October	3.0	2.6	2.0	2.0	1.3	3.9
(min-max)	0.1-7.9	0.4-5.3	0.4-4.1	0.1-5.6	0.1-2.8	0.3-10.9
November	2.4	2.0	3.3	2.9	4.3	3.9
(min-max)	0.8-4.7	0.8-4.7	1.0-5.7	1.0-4.5	1.1-7.1	1.4-12.0
December	3.5	3.1	3.5	3.0	5.2	4.7
(min-max)	1.8-5.8	1.4-5.5	2.5-4.9	1.1-5.6	2.0-7.5	0.9-14.7

*Data up to 2010

Table I.11: Daily average observation precipitation in Central Greece (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	3.1	3.5	2.9	2.4	4.1	2.5
(min-max)	0.5-5.4	1.9-4.8	0.8-6.1	0.2-5.4	1.2-8.1	0.0-8.0
February	1.8	3.5	2.9	2.8	2.9	2.5
(min-max)	0.0-4.5	0.9-6.5	1.4-5.3	0.4-4.6	0.6-7.0	0.2-8.0
March	1.8	2.3	1.7	2.2	2.7	1.7
(min-max)	0.3-3.4	0.5-4.9	0.2-3.0	0.0-4.0	1.1-5.9	0.2-3.9
April	1.2	1.1	1.5	1.5	1.6	0.7
(min-max)	0.3-2.7	0.2-2.0	0.3-3.0	0.6-2.9	0.4-3.3	0.0-2.1
May	0.7	0.7	0.5	0.7	0.5	0.5
(min-max)	0.0-2.4	0.0-1.3	0.0-0.8	0.2-2.0	0.1-2.0	0.0-1.8
June	0.1	0.3	0.3	0.2	0.1	0.2
(min-max)	0.0-0.2	0.0-1.3	0.0-1.4	0.0-0.8	0.0-0.4	0.0-0.7
July	0.1	0.2	0.1	0.0	0.4	0.0
(min-max)	0.0-0.6	0.0-1.6	0.0-0.5	0.0-0.2	0.0-2.7	0.0-0.0
August	0.2	0.4	0.2	0.0	0.3	0.0
(min-max)	0.0-0.5	0.0-2.3	0.0-0.9	0.0-0.2	0.0-1.3	0.0-0.0
September	1.1	1.3	0.6	0.3	1.3	1.0
(min-max)	0.0-2.9	0.1-2.9	0.0-4.0	0.0-0.5	0.1-4.4	0.0-2.1
October	3.3	2.5	2.0	1.9	1.7	2.6
(min-max)	0.2-7.4	0.2-6.3	0.1-5.1	0.1-5.7	0.1-3.1	0.1-4.8
November	3.3	2.8	4.0	3.4	5.2	0.8
(min-max)	1.4-8.1	0.2-5.2	1.9-5.8	1.5-3.4	1.6-10.3	0.7-1.1
December	3.7	4.5	3.8	3.7	5.6	1.2
(min-max)	0.1-8.3	1.5-9.8	1.5-6.3	1.3-7.9	3.2-9.8	0.4-2.3

*Data up to 2010

Table I.12: Daily average observation precipitation in North Greece (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	3.2	2.8	1.7	1.5	2.9	-
(min-max)	0.7-7.3	1.6-3.9	0.3-3.8	0.0-3.5	1.1-5.7	-
February	2.3	2.9	2.7	1.5	2.2	-
(min-max)	0.1-5.6	0.6-5.7	0.7-4.3	0.3-4.1	0.5-4.2	-
March	2.5	2.1	1.5	1.7	2.1	-
(min-max)	1.1-4.3	0.4-5.0	0.6-2.4	0.2-4.5	0.6-4.4	-
April	1.5	1.4	1.7	1.5	1.9	-
(min-max)	0.5-2.7	0.4-4.3	0.5-3.8	0.4-3.4	0.5-3.9	-
May	1.3	1.0	1.4	1.2	1.5	-
(min-max)	0.0-2.5	0.1-2.4	0.3-3.0	0.1-2.6	0.3-3.5	-
June	0.9	0.5	0.7	0.7	0.8	-
(min-max)	0.2-1.6	0.1-1.1	0.1-2.3	0.1-1.8	0.0-2.9	-
July	0.3	0.7	0.4	0.4	0.8	-
(min-max)	0.0-0.6	0.0-3.2	0.0-1.6	0.0-1.5	0.1-2.7	-
August	0.4	0.4	0.7	0.5	0.9	-
(min-max)	0.0-2.4	0.0-0.9	0.0-1.2	0.0-1.6	0.0-2.8	-
September	2.1	1.7	1.4	0.8	2.3	-
(min-max)	0.2-4.2	0.1-4.8	0.1-5.6	0.2-1.9	0.0-6.0	-
October	3.5	2.4	2.6	1.9	2.8	-
(min-max)	0.8-8.4	0.0-6.2	0.7-5.2	0.7-3.6	0.4-5.8	-
November	3.9	2.2	3.5	3.9	3.7	-
(min-max)	2.2-6.7	0.1-5.0	1.6-7.4	1.6-7.6	1.6-7.6	-
December	3.5	3.4	2.8	2.3	4.4	-
(min-max)	0.8-7.0	1.2-7.7	1.3-5.8	1.0-4.7	2.7-7.7	-

Table I.13: Daily average observation precipitation in South Italy (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	1.5	1.6	1.0	1.6	1.7	1.4
(min-max)	0.6-2.4	0.7-2.9	0.1-2.2	0.6-3.1	0.6-3.0	0.0-3.1
February	1.4	1.7	1.8	1.4	1.1	1.5
(min-max)	0.1-5.0	0.6-2.8	0.7-2.6	0.2-3.1	0.3-3.6	0.5-3.1
March	1.2	1.4	1.3	1.2	0.9	1.5
(min-max)	0.4-2.3	0.5-2.8	0.2-2.5	0.0-2.3	0.4-2.3	0.2-2.8
April	1.1	0.9	1.0	1.1	1.1	1.5
(min-max)	0.2-2.4	0.3-2.0	0.3-2.3	0.1-1.6	0.6-2.2	0.3-3.3
May	0.6	0.6	0.6	0.7	0.5	0.7
(min-max)	0.1-1.3	0.1-1.5	0.2-1.2	0.1-1.2	0.1-1.1	0.0-2.4
June	0.3	0.3	0.2	0.4	0.2	0.3
(min-max)	0.1-0.6	0.0-0.8	0.0-0.5	0.0-1.7	0.0-0.8	0.1-0.9
July	0.1	0.1	0.1	0.1	0.2	0.1
(min-max)	0.0-0.5	0.0-0.4	0.0-0.3	0.0-0.3	0.0-0.5	0.0-0.3
August	0.4	0.3	0.5	0.1	0.6	0.1
(min-max)	0.0-1.5	0.0-0.8	0.2-1.0	0.0-0.4	0.0-1.6	0.0-0.5
September	0.8	1.5	0.8	1.0	1.6	1.6
(min-max)	0.0-2.1	0.2-3.5	0.2-1.8	0.3-2.6	0.4-2.9	0.3-3.9
October	1.9	2.1	1.8	1.7	1.5	1.6
(min-max)	0.5-3.2	0.3-4.9	0.4-3.1	0.4-2.3	0.2-3.3	0.1-3.7
November	1.8	1.0	2.0	1.9	2.1	2.2
(min-max)	0.8-3.3	0.2-2.7	0.6-3.7	0.6-3.9	0.9-3.4	0.5-4.2
December	1.8	1.9	1.6	1.5	1.9	1.9
(min-max)	0.6-2.5	0.5-4.7	0.6-3.0	0.2-3.3	1.0-3.1	0.5-4.4

*Data up to 2010

Table I.14: Daily average observation precipitation in Central Italy (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	0.9	1.3	0.8	0.8	0.9	1.7
(min-max)	0.1-1.8	0.4-3.7	0.1-2.0	0.0-1.6	0.0-2.3	0.4-3.6
February	0.7	1.1	1.0	0.8	0.8	1.5
(min-max)	0.0-2.1	0.7-1.8	0.1-2.2	0.0-2.4	0.1-1.7	0.9-2.3
March	1.0	0.7	0.9	0.6	0.6	1.6
(min-max)	0.3-1.7	0.2-1.7	0.3-1.6	0.0-1.6	0.1-1.3	0.3-4.1
April	0.8	0.9	0.7	1.1	1.1	0.6
(min-max)	0.2-1.7	0.4-3.0	0.2-2.1	0.2-1.8	0.2-1.9	0.0-1.2
May	0.6	0.5	0.7	0.5	0.9	1.4
(min-max)	0.0-1.1	0.0-0.8	0.1-1.7	0.0-1.1	0.2-1.6	0.2-4.7
June	0.5	0.3	0.6	0.5	0.3	0.5
(min-max)	0.1-1.0	0.0-1.3	0.0-1.7	0.0-1.5	0.1-0.6	0.2-0.7
July	0.3	0.2	0.2	0.3	0.3	0.1
(min-max)	0.0-0.8	0.0-0.7	0.0-0.7	0.0-0.9	0.0-1.3	0.0-0.4
August	0.2	0.4	0.6	0.1	0.7	0.3
(min-max)	0.0-0.8	0.0-1.3	0.1-1.4	0.0-0.1	0.0-1.7	0.0-0.7
September	0.8	1.0	1.0	0.7	1.0	1.6
(min-max)	0.1-1.4	0.1-2.3	0.0-1.7	0.1-1.6	0.2-2.0	1.2-2.0
October	1.3	0.6	1.7	1.3	1.4	1.3
(min-max)	0.6-2.8	0.0-2.4	0.4-4.0	0.3-2.7	0.0-2.2	0.4-2.0
November	1.8	1.2	1.5	1.4	1.7	2.4
(min-max)	0.9-3.1	0.3-2.3	0.1-2.6	0.5-3.5	0.3-3.1	0.5-5.0
December	1.6	0.9	1.1	0.9	1.4	3.2
(min-max)	0.5-3.3	0.3-1.7	0.2-1.9	0.0-2.3	0.6-3.1	0.6-8.6

*Data up to 2009

Table I.15: Daily average observation precipitation in North Italy (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014*
January	1.3	1.8	1.5	1.5	1.6	1.8
(min-max)	0.3-2.6	0.5-3.1	0.3-3.4	0.1-3.1	0.2-3.4	0.4-5.3
February	1.7	1.9	1.4	1.3	1.2	2.8
(min-max)	0.5-2.7	0.2-4.2	0.2-2.6	0.2-4.3	0.1-3.2	0.7-6.4
March	2.2	1.3	2.1	1.4	1.2	2.2
(min-max)	0.1-4.3	0.3-2.1	1.2-3.2	0.4-3.6	0.3-3.4	0.5-4.3
April	2.6	1.8	1.4	2.4	2.0	2.1
(min-max)	0.0-4.8	0.5-3.1	0.6-2.7	0.9-4.4	1.2-2.6	0.3-5.5
May	1.8	1.6	2.3	1.6	1.7	2.0
(min-max)	0.5-3.0	0.4-2.7	0.1-4.8	0.6-2.9	0.6-3.1	0.3-3.5
June	2.1	1.9	1.5	1.9	1.9	2.2
(min-max)	1.3-3.2	1.1-3.4	0.7-2.6	0.8-3.0	1.0-3.4	0.7-4.5
July	1.5	1.2	1.3	1.5	1.3	1.4
(min-max)	0.6-3.1	0.5-2.1	0.4-2.3	0.2-3.3	0.6-2.7	0.2-2.3
August	1.3	2.0	2.6	1.4	1.7	2.4
(min-max)	0.2-2.4	0.7-3.3	1.3-4.6	0.5-2.9	0.5-3.2	0.5-4.7
September	1.9	2.1	1.9	2.2	2.1	3.2
(min-max)	0.5-3.7	0.3-3.8	0.5-4.4	0.1-4.7	0.5-3.1	1.9-5.3
October	2.9	1.4	3.1	2.9	2.6	2.6
(min-max)	1.5-4.8	0.0-4.7	0.9-5.1	0.3-5.8	1.3-4.3	0.7-5.8
November	3.3	2.5	2.4	1.9	2.9	3.6
(min-max)	1.1-4.4	0.7-4.3	0.1-4.1	0.4-2.9	0.7-4.2	1.2-6.8
December	2.5	1.3	2.0	1.2	2.1	2.5
(min-max)	0.5-5.7	0.3-2.1	1.3-3.0	0.1-2.5	0.3-3.5	1.5-4.2

*Data up to 2009

Table I.16: Daily average observation precipitation in South Spain (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	1.8	1.8	1.6	1.3	1.6	1.5
(min-max)	0.6-3.7	0.4-5.3	0.0-5.1	0.4-2.3	0.3-4.7	0.4-3.0
February	1.7	2.1	1.5	1.7	0.9	1.8
(min-max)	0.1-3.1	0.8-4.2	0.8-2.3	0.0-2.6	0.0-2.1	0.1-5.2
March	1.7	1.5	1.1	0.9	1.0	1.3
(min-max)	0.6-3.3	0.4-2.7	0.3-1.9	0.2-1.9	0.3-1.9	0.4-3.0
April	1.1	1.1	1.2	0.9	1.0	1.1
(min-max)	0.2-1.9	0.2-2.8	0.4-2.2	0.4-1.9	0.3-1.8	0.3-1.8
May	0.9	0.6	0.8	0.6	0.0	0.5
(min-max)	0.2-2.2	0.1-1.9	0.1-1.8	0.1-1.4	0.7-1.2	0.1-1.0
June	0.3	0.6	0.2	0.3	0.1	0.1
(min-max)	0.0-0.6	0.4-1.1	0.0-0.5	0.0-1.5	0.0-0.5	0.0-0.6
July	0.0	0.0	0.1	0.0	0.0	0.0
(min-max)	0.0-0.0	0.0-0.1	0.0-0.3	0.0-0.4	0.0-0.0	0.0-0.1
August	0.0	0.1	0.1	0.1	0.0	0.1
(min-max)	0.0-0.1	0.0-0.3	0.0-0.3	0.0-0.6	0.0-0.2	0.0-0.4
September	0.5	0.6	0.4	0.6	0.7	0.8
(min-max)	0.1-0.9	0.0-1.5	0.0-1.1	0.2-1.9	0.1-1.8	0.3-1.6
October	1.7	1.8	1.0	1.6	1.2	1.4
(min-max)	0.2-4.1	0.6-4.0	0.1-2.6	0.2-2.5	0.0-3.1	0.5-2.4
November	2.2	2.0	1.7	1.8	1.7	2.0
(min-max)	1.1-5.3	0.5-4.0	0.1-5.1	0.3-4.7	0.4-3.0	0.5-3.9
December	2.8	1.5	1.7	1.5	2.5	1.6
(min-max)	0.6-5.7	0.1-3.4	0.3-3.5	0.2-4.5	1.2-5.5	0.1-4.8

Table I.17: Daily average observation precipitation in Central Spain (mm)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	1.4	1.6	1.1	1.1	1.5	1.1
(min-max)	0.2-2.8	0.2-3.7	0.1-2.8	0.0-2.8	0.4-3.3	0.1-2.0
February	1.5	1.6	1.4	1.2	0.9	1.3
(min-max)	0.1-2.7	0.4-2.5	0.4-2.4	0.0-2.2	0.0-2.0	0.3-2.2
March	1.4	1.5	1.1	0.7	1.0	1.3
(min-max)	0.4-2.6	0.2-2.4	0.3-2.2	0.1-1.8	0.0-2.1	0.4-3.3
April	1.2	1.4	1.7	1.5	1.3	1.7
(min-max)	0.6-2.2	0.2-2.7	1.1-3.1	0.9-2.6	0.5-2.4	0.6-2.9
May	1.4	1.3	1.7	1.4	1.8	1.4
(min-max)	0.4-2.6	0.7-3.6	0.6-2.9	0.6-2.2	0.7-2.8	0.4-4.4
June	1.4	1.1	1.0	1.0	0.7	0.9
(min-max)	0.8-1.9	0.5-2.0	0.7-1.5	0.1-3.1	0.2-1.4	0.3-1.5
July	0.3	0.4	0.4	0.4	0.4	0.3
(min-max)	0.0-0.6	0.0-0.7	0.0-1.1	0.1-1.5	0.0-1.0	0.0-0.5
August	0.5	0.5	0.8	0.3	0.6	0.4
(min-max)	0.0-1.2	0.3-0.9	0.1-1.9	0.0-0.7	0.1-1.2	0.1-0.8
September	1.6	1.2	1.0	1.3	1.4	1.4
(min-max)	0.5-3.6	0.1-4.0	0.2-1.8	0.7-2.7	0.8-2.0	0.3-2.5
October	2.1	2.1	1.4	2.2	1.7	2.0
(min-max)	0.5-4.3	0.4-3.8	0.4-3.4	0.5-3.5	0.5-3.3	1.0-3.4
November	1.7	1.9	1.6	1.7	1.8	2.0
(min-max)	0.8-3.6	1.0-3.4	0.0-3.9	0.1-4.2	0.8-4.0	0.4-3.9
December	1.9	1.3	1.6	1.3	2.0	1.2
(min-max)	0.5-4.4	0.1-2.4	0.4-2.9	0.1-3.9	0.7-4.0	0.2-2.8

Table I.18: Daily average observation precipitation in North Spain (mm)

		1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January		2.5	3.1	2.9	2.4	2.8	1.9
(min-max)		0.3-4.2	1.7-4.4	0.4-5.6	0.5-4.4	0.8-4.6	0.7-2.9
February		2.3	3.0	3.0	2.3	1.8	1.9
(min-max)		0.9-3.7	1.4-5.4	1.7-5.3	0.6-4.3	0.7-3.4	0.5-3.2
March		2.8	2.3	2.5	1.6	1.9	2.4
(min-max)		0.2-3.9	1.0-4.1	1.5-3.8	0.5-3.1	0.1-4.9	1.4-4.4
April		2.2	2.5	2.4	3.0	2.4	2.5
(min-max)		0.8-3.4	1.5-4.1	0.4-3.7	1.9-4.4	1.1-5.0	1.2-3.6
May		1.8	2.7	2.8	2.1	2.2	2.3
(min-max)		0.9-2.6	1.2-4.3	1.0-5.1	0.9-3.1	1.4-3.4	0.8-5.2
June		1.8	1.8	1.7	1.7	1.2	1.7
(min-max)		0.8-2.9	0.7-2.5	0.8-3.9	0.7-3.8	0.6-2.8	0.7-3.4
July		1.0	0.9	1.2	0.9	1.2	1.2
(min-max)		0.5-1.5	0.5-2.1	0.3-2.8	0.2-1.4	0.8-2.0	0.5-2.0
August		1.3	1.4	1.7	1.1	1.4	1.2
(min-max)		0.3-2.7	0.8-2.3	0.7-4.4	0.6-2.8	0.8-2.4	0.8-2.3
September		2.5	2.6	1.7	2.2	2.1	1.9
(min-max)		1.5-5.3	0.7-4.8	0.4-3.6	0.1-3.8	1.1-3.9	0.8-3.1
October		3.0	2.8	2.9	3.3	3.0	2.7
(min-max)		1.4-6.4	1.4-5.6	5.1-1.1	1.1-6.4	1.1-4.7	1.3-4.0
November		3.3	3.4	3.0	2.9	3.7	3.3
(min-max)		1.9-5.1	1.1-5.4	0.2-5.3	1.5-4.5	1.5-5.9	1.3-5.3
December		3.4	3.0	3.6	2.5	3.3	1.9
(min-max)		1.4-6.7	0.7-4.6	2.2-5.8	0.8-3.4	0.8-4.8	1.0-2.9

Table I.19: Daily average observation humidity in South Greece (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	69.8	73.1	68.5	68.6	71.6	-
(min-max)	68.0-75.0	68.0-79.0	65.0-70.0	63.0-73.0	67.0-74.0	-
February	67.1	71.7	68.4	66.7	70.1	-
(min-max)	59.0-70.0	68.0-77.0	65.0-73.0	63.0-71.0	66.0-74.0	-
March	67.6	70.0	68.9	69.1	67.2	-
(min-max)	62.0-72.0	66.0-77.0	65.0-75.0	66.0-73.0	65.0-71.0	-
April	66.2	67.8	67.4	64.4	65.9	-
(min-max)	61.0-71.0	65.0-72.0	64.0-70.0	61.0-67.0	62.0-71.0	-
May	66.7	66.9	66.9	66.3	63.9	-
(min-max)	60.0-72.0	62.0-70.0	59.0-73.0	62.0-71.0	68.0-59.0	-
June	63.5	64.1	64.9	63.7	59.6	-
(min-max)	60.0-66.0	61.0-67.0	63.0-68.0	60.0-66.0	52.0-66.0	-
July	63.0	64.8	65.1	63.7	60.3	-
(min-max)	56.0-68.0	61.0-74.0	60.0-67.0	61.0-67.0	51.0-68.0	-
August	62.8	64.7	64.6	64.5	63.9	-
(min-max)	59.0-66.0	62.0-69.0	62.0-67.0	61.0-67.0	55.0-67.0	-
September	64.1	66.4	64.7	64.5	64.6	-
(min-max)	59.0-71.0	64.0-71.0	63.0-68.0	61.0-68.0	59.0-71.0	-
October	66.9	67.8	67.5	67.2	66.6	-
(min-max)	63.0-73.0	63.0-73.0	64.0-73.0	64.0-72.0	58.0-70.0	-
November	70.7	72.0	68.8	69.6	71.7	-
(min-max)	65.0-75.0	66.0-78.0	63.0-74.0	67.0-72.0	68.0-75.0	-
December	70.3	71.3	69.8	70.2	72.4	-
(min-max)	66.0-74.0	67.0-76.0	65.0-74.0	67.0-74.0	71.0-74.0	-

Table I.20: Daily average observation humidity in Central Greece (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	68.1	71.3	66.8	66.9	71.4	-
(min-max)	62.0-72.0	65.0-76.0	64.2-72.0	58.0-74.0	59.0-80.0	-
February	65.1	72.6	67.4	65.0	67.4	-
(min-max)	56.0-70.0	69.0-75.0	63.0-71.0	57.0-71.0	61.0-73.0	-
March	63.1	68.1	66.7	65.2	64.7	-
(min-max)	56.0-73.0	65.0-74.0	61.0-71.0	53.0-72.0	54.0-70.0	-
April	60.2	65.0	62.8	61.0	63.5	-
(min-max)	55.0-64.0	60.0-72.0	53.0-69.0	55.0-72.0	58.0-72.0	-
May	59.7	60.3	58.5	57.5	56.7	-
(min-max)	57.0-65.0	55.0-69.0	54.0-62.0	48.0-62.0	49.0-63.0	-
June	51.2	55.4	51.5	52.7	49.3	-
(min-max)	42.0-58.0	51.0-64.0	45.0-55.0	45.0-56.0	37.0-60.0	-
July	45.1	50.7	47.6	43.7	47.0	-
(min-max)	41.0-49.0	38.0-62.0	43.0-54.0	38.0-48.0	39.0-56.0	-
August	44.1	48.8	48.8	43.6	49.7	-
(min-max)	39.0-52.0	38.0-57.0	42.0-53.0	39.0-50.0	35.0-59.0	-
September	51.4	56.2	53.1	50.9	57.4	-
(min-max)	43.0-57.0	50.0-63.0	49.0-58.0	46.0-56.0	47.0-73.0	-
October	62.1	61.8	62.3	60.6	64.0	-
(min-max)	53.0-72.0	54.0-70.0	54.0-69.0	54.0-66.0	53.0-72.0	-
November	68.7	70.0	66.9	67.3	71.2	-
(min-max)	65.0-73.0	63.0-77.0	60.0-71.0	62.0-74.0	63.0-80.0	-
December	70.6	69.6	69.3	68.1	73.5	-
(min-max)	62.0-74.0	61.0-74.0	65.0-73.0	62.0-73.0	66.0-81.0	-

Table I.21: Daily average observation humidity in North Greece (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	75.9	77.4	75.9	77.9	79.5	-
(min-max)	67.0-83.0	73.0-83.0	72.0-79.0	75.0-84.0	74.0-85.0	-
February	71.9	75.7	75.0	73.6	72.5	-
(min-max)	65.0-77.0	71.0-83.0	67.0-84.0	67.2-82.0	66.0-79.0	-
March	73.2	72.9	73.4	72.5	68.0	-
(min-max)	67.0-78.0	69.0-80.0	70.0-77.0	62.0-82.0	60.0-78.0	-
April	71.2	70.3	71.2	68.5	67.9	-
(min-max)	68.0-74.0	66.0-77.0	64.0-79.0	62.0-79.0	64.0-73.0	-
May	66.6	62.8	67.0	65.3	62.4	-
(min-max)	59.0-72.0	59.0-65.0	59.0-65.0	61.0-72.0	55.0-69.0	-
June	55.7	55.2	57.8	55.0	54.7	-
(min-max)	49.0-63.0	51.0-60.0	53.0-63.0	50.0-62.0	48.0-62.0	-
July	51.3	52.2	52.8	54.0	52.2	-
(min-max)	49.0-54.0	47.0-62.0	47.0-59.0	46.0-63.0	46.0-60.0	-
August	51.3	55.0	59.0	55.3	57.5	-
(min-max)	46.0-58.0	52.0-59.0	51.0-63.0	51.0-63.0	50.0-63.0	-
September	63.7	64.9	64.6	62.9	64.6	-
(min-max)	58.0-69.0	59.0-70.0	61.0-68.0	60.0-69.0	54.0-76.0	-
October	72.9	69.9	72.9	71.4	71.7	-
(min-max)	68.0-80.0	65.0-76.0	70.0-77.0	68.0-77.0	63.0-76.0	-
November	78.7	76.4	78.4	78.7	76.9	-
(min-max)	76.0-81.0	73.0-81.0	74.0-81.0	75.0-81.0	67.0-82.0	-
December	78.5	78.9	78.5	79.6	81.8	-
(min-max)	76.0-81.0	75.0-84.0	74.0-84.0	73.0-86.0	77.0-86.0	-

Table I.22: Daily average observation humidity in South Italy (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995*-2004	2005-2014**
January	-	-	-	-	78.5	75.4
(min-max)	-	-	-	-	72.0-82.0	74.0-78.0
February	-	-	-	-	75.7	72.6
(min-max)	-	-	-	-	73.0-80.0	71.0-74.0
March	-	-	-	-	74.3	72.0
(min-max)	-	-	-	-	71.0-80.0	70.0-75.0
April	-	-	-	-	75.7	71.2
(min-max)	-	-	-	-	69.0-80.0	68.0-76.0
May	-	-	-	-	75.3	66.8
(min-max)	-	-	-	-	73.0-79.0	64.0-70.0
June	-	-	-	-	69.2	65.0
(min-max)	-	-	-	-	66.0-72.0	62.0-70.0
July	-	-	-	-	67.3	63.2
(min-max)	-	-	-	-	64.0-71.0	59.0-65.0
August	-	-	-	-	69.5	64.0
(min-max)	-	-	-	-	65.0-75.0	59.0-68.0
September	-	-	-	-	69.0	68.0
(min-max)	-	-	-	-	58.0-73.0	64.0-70.0
October	-	-	-	-	77.0	72.8
(min-max)	-	-	-	-	66.0-82.0	69.0-75.0
November	-	-	-	-	79.0	74.2
(min-max)	-	-	-	-	75.0-83.0	72.0-78.0
December	-	-	-	-	77.8	76.0
(min-max)	-	-	-	-	70.0-84.0	75.0-78.0

*Data from 1999

**Data up to 2009

Table I.23: Daily average observation humidity in Central Italy (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995*-2004	2005-2014**
January	-	-	-	-	82.2	75.4
(min-max)	-	-	-	-	80.0-88.0	72.0-79.0
February	-	-	-	-	78.3	71.2
(min-max)	-	-	-	-	66.0-85.0	67.0-77.0
March	-	-	-	-	76.7	71.8
(min-max)	-	-	-	-	66.0-85.0	67.0-77.0
April	-	-	-	-	78.2	70.6
(min-max)	-	-	-	-	63.0-87.0	68.0-73.0
May	-	-	-	-	75.0	67.2
(min-max)	-	-	-	-	60.0-80.0	62.0-72.0
June	-	-	-	-	65.5	65.2
(min-max)	-	-	-	-	59.0-70.0	64.0-66.0
July	-	-	-	-	64.7	61.8
(min-max)	-	-	-	-	58.0-74.0	58.0-65.0
August	-	-	-	-	68.7	63.4
(min-max)	-	-	-	-	57.0-82.0	60.0-69.0
September	-	-	-	-	76.3	70.0
(min-max)	-	-	-	-	68.0-82.0	66.0-75.0
October	-	-	-	-	83.0	72.0
(min-max)	-	-	-	-	76.0-88.0	68.0-80.0
November	-	-	-	-	84.0	75.4
(min-max)	-	-	-	-	79.0-89.0	73.0-80.0
December	-	-	-	-	81.0	75.8
(min-max)	-	-	-	-	70.0-90.0	73.0-77.0

*Data from 1999

**Data up to 2009

Table I.24: Daily average observation humidity in North Italy (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995*-2004	2005-2014**
January	-	-	-	-	82.3	82.6
(min-max)	-	-	-	-	72.0-88.0	79.0-86.0
February	-	-	-	-	74.3	73.8
(min-max)	-	-	-	-	61.0-87.0	68.0-79.0
March	-	-	-	-	74.7	69.2
(min-max)	-	-	-	-	65.0-89.0	68.0-71.0
April	-	-	-	-	73.2	70.2
(min-max)	-	-	-	-	64.0-81.0	66.0-73.0
May	-	-	-	-	69.8	67.0
(min-max)	-	-	-	-	56.0-78.0	65.0-69.0
June	-	-	-	-	67.8	67.8
(min-max)	-	-	-	-	53.0-73.0	64.0-73.0
July	-	-	-	-	69.7	66.6
(min-max)	-	-	-	-	62.0-77.0	63.0-70.0
August	-	-	-	-	74.5	69.0
(min-max)	-	-	-	-	65.0-81.0	67.0-74.0
September	-	-	-	-	76.3	70.0
(min-max)	-	-	-	-	68.0-82.0	66.0-75.0
October	-	-	-	-	84.3	75.6
(min-max)	-	-	-	-	67.0-92.0	72.0-82.0
November	-	-	-	-	84.5	82.0
(min-max)	-	-	-	-	66.0-93.0	75.0-88.0
December	-	-	-	-	82.0	81.0
(min-max)	-	-	-	-	71.0-90.0	78.0-84.0

*Data from 1999

**Data up to 2009

Table I.25: Daily average observation humidity in South Spain (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	75.0	74.6	71.8	70.7	72.6	69.8
(min-max)	73.0-79.0	70.0-80.0	65.0-79.0	67.0-77.0	67.0-76.0	65.0-75.0
February	71.5	72.3	70.4	71.5	69.0	68.2
(min-max)	67.0-76.0	67.0-77.0	64.0-74.0	69.0-74.0	65.0-73.0	56.0-73.0
March	70.3	70.2	66.4	68.1	67.1	66.0
(min-max)	65.0-76.0	66.0-75.0	65.0-69.0	64.0-74.0	62.0-71.0	61.0-71.0
April	70.3	70.2	66.4	68.1	67.1	66.0
(min-max)	65.0-76.0	66.0-75.0	65.0-69.0	64.0-74.0	62.0-71.0	61.0-71.0
May	66.3	65.9	64.8	65.8	64.5	60.3
(min-max)	63.0-72.0	61.0-71.0	61.0-69.0	62.0-69.0	60.0-70.0	57.0-65.0
June	65.6	65.4	62.0	63.7	61.5	59.3
(min-max)	61.0-71.0	63.0-67.0	60.0-66.0	59.0-67.0	58.0-65.0	57.0-61.0
July	63.4	63.3	58.9	61.2	60.8	58.0
(min-max)	60.0-67.0	59.0-66.0	56.0-62.0	58.0-63.0	57.0-64.0	56.0-61.0
August	65.9	65.3	61.0	62.9	63.1	59.6
(min-max)	64.0-68.0	63.0-68.0	58.0-65.0	59.0-65.0	59.0-67.0	57.0-61.0
September	69.3	67.9	64.0	66.4	67.4	65.0
(min-max)	66.0-73.0	64.0-73.0	60.0-68.0	63.0-70.0	64.0-70.0	62.0-68.0
October	72.6	72.9	67.5	72.4	70.2	68.6
(min-max)	69.0-78.0	66.0-81.0	64.0-75.0	68.0-75.0	66.0-75.0	64.0-72.0
November	74.5	74.9	70.8	73.3	71.1	69.3
(min-max)	69.0-78.0	68.0-78.0	65.0-78.0	68.0-77.0	68.0-75.0	64.0-75.0
December	74.1	74.0	72.6	73.4	74.2	70.6
(min-max)	68.0-80.0	71.0-77.0	64.0-80.0	68.0-80.0	69.0-78.0	68.0-73.0

Table I.26: Daily average observation humidity in Central Spain (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	77.8	77.9	75.7	76.4	77.3	75.5
(min-max)	72.0-82.0	71.0-82.0	70.0-82.0	72.0-81.0	72.0-84.0	70.0-79.0
February	71.3	72.5	73.4	72.7	70.8	69.3
(min-max)	60.0-78.0	66.0-79.0	66.0-79.0	68.0-77.0	66.0-74.0	55.0-75.0
March	67.6	68.1	67.6	65.6	65.2	64.7
(min-max)	60.0-75.0	62.0-74.0	62.0-73.0	60.0-76.0	56.0-71.0	57.0-72.0
April	62.1	65.9	66.9	65.3	63.1	65.3
(min-max)	54.0-69.0	57.0-73.0	62.0-74.0	59.0-73.0	56.0-70.0	60.0-72.0
May	59.7	63.3	65.9	62.3	63.5	59.7
(min-max)	54.0-67.0	54.0-76.0	61.0-71.0	55.0-72.0	56.0-69.0	54.0-71.0
June	58.0	59.1	60.2	57.7	53.3	54.7
(min-max)	53.0-63.0	50.0-64.0	53.0-66.0	51.0-69.0	46.0-60.0	49.0-61.0
July	50.1	51.7	52.9	51.8	49.9	49.6
(min-max)	46.0-56.0	47.0-57.0	47.0-63.0	47.0-59.0	46.0-56.0	45.0-54.0
August	52.2	53.6	56.1	52.5	52.7	51.5
(min-max)	48.0-57.0	48.0-570	53.0-60.0	49.0-55.0	49.0-57.0	47.0-56.0
September	62.8	61.1	61.1	61.5	60.7	59.4
(min-max)	58.0-72.0	56.0-71.0	55.0-67.0	56.0-66.0	56.0-64.0	54.0-67.0
October	71.4	72.0	69.5	73.1	70.0	68.3
(min-max)	67.0-77.0	62.0-81.0	64.0-77.0	62.0-78.0	66.0-75.0	61.0-72.0
November	75.5	76.4	75.2	76.9	75.1	73.9
(min-max)	69.0-82.0	71.0-83.0	68.0-82.0	73.0-81.0	72.0-80.0	65.0-81.0
December	77.6	78.3	77.3	79.2	78.6	75.0
(min-max)	73.0-83.0	75.0-82.0	70.0-84.0	74.0-86.0	74.0-83.0	73.0-77.0

Table I.27: Daily average observation humidity in North Spain (%)

	1955-1964	1965-1974	1975-1984	1985-1994	1995-2004	2005-2014
January	78.3	78.8	79.8	79.3	78.3	76.5
(min-max)	75.0-82.0	76.0-80.0	77.0-82.0	78.0-82.0	75.0-84.0	72.0-82.0
February	74.4	74.0	76.6	74.7	76.0	70.4
(min-max)	70.0-78.0	71.0-77.0	74.0-79.0	71.0-80.0	73.0-78.0	57.0-74.0
March	73.1	71.1	72.7	71.7	71.5	68.4
(min-max)	69.0-76.0	66.0-76.0	70.0-75.0	65.0-77.0	67.0-75.0	60.0-74.0
April	72.6	71.4	71.3	72.3	70.8	71.1
(min-max)	69.0-77.0	67.0-75.0	67.0-75.0	69.0-78.0	67.0-76.0	68.0-76.0
May	72.2	70.7	72.7	71.5	71.9	69.3
(min-max)	68.0-77.0	65.0-76.0	69.0-77.0	68.0-77.0	68.0-76.0	65.0-75.0
June	73.0	69.6	71.4	70.9	68.1	66.5
(min-max)	70.0-78.0	65.0-73.0	67.0-76.0	66.0-76.0	64.0-72.0	63.0-69.0
July	71.0	67.2	69.0	68.3	68.9	65.0
(min-max)	67.0-79.0	64.0-71.0	65.0-75.0	64.0-71.0	66.0-73.0	62.0-68.0
August	71.2	68.9	71.3	68.6	70.0	65.4
(min-max)	65.0-77.0	66.0-71.0	69.0-76.0	67.0-70.0	65.0-74.0	60.0-72.0
September	75.6	71.9	72.3	72.3	72.9	70.0
(min-max)	71.0-81.0	68.0-78.0	69.0-75.0	68.0-76.0	70.0-76.0	67.0-76.0
October	77.7	76.7	76.7	77.0	76.8	73.2
(min-max)	74.0-85.0	73.0-80.0	74.0-80.0	72.0-82.0	73.0-80.0	66.0-76.0
November	78.4	78.3	79.6	80.2	79.1	76.3
(min-max)	75.0-81.0	75.0-83.0	77.0-83.0	77.0-83.0	76.0-81.0	71.0-82.0
December	79.1	79.8	79.9	80.2	80.0	74.6
(min-max)	76.0-82.0	78.0-83.0	76.0-84.0	78.0-83.0	77.0-83.0	71.0-79.0

Annex II: Basic Socio-Economic Parameters of Tree Crops Categories in South Europe

Table II.1: GDP at 2005constant prices in US $

GDP				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	7.135	151.032	1.287.760	598.442
1986	7.407	151.814	1.324.590	617.911
1987	7.930	148.385	1.366.880	652.188
1988	8.585	154.747	1.424.210	685.412
1989	9.279	160.627	1.472.460	718.497
1990	9.966	160.627	1.501.700	745.667
1991	10.037	165.607	1.524.810	764.651
1992	10.976	166.766	1.537.530	771.757
1993	11.053	164.098	1.524.420	763.796
1994	11.694	167.380	1.557.210	781.999
1995	12.855	170.894	1.602.160	803.562
1996	13.063	175.944	1.622.780	823.256
1997	13.377	183.795	1.652.570	853.631
1998	14.058	191.253	1.679.300	890.388
1999	14.717	197.132	1.705.510	930.321
2000	15.552	204.953	1.768.790	979.526
2001	16.108	212.612	1.800.150	1.018.720
2002	16.627	219.336	1.804.660	1.048.050
2003	17.091	233.895	1.807.410	1.081.460
2004	17.839	245.479	1.836.030	1.115.710
2005	18.528	247.666	1.853.470	1.157.250
2006	19.365	262.068	1.890.650	1.205.550
2007	20.313	271.339	1.918.530	1.250.990
2008	21.048	270.133	1.898.380	1.264.950
2009	20.618	258.261	1.794.330	1.219.740
2010	20.905	244.189	1.825.020	1.219.910
2001	20.960	222.544	1.835.730	1.212.380
2012	20.460	207.917	1.794.100	1.187.050
2013	19.364	201.024	1.759.570	1.172.450

Table II.2: Agriculture Production Value at 2005 constant prices in US $

Agriculture Production Value				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	534	11.731	39.884	33.086
1986	543	12.025	41.173	36.430
1987	589	11.390	43.032	40.823
1988	616	12.130	42.484	44.668
1989	643	12.246	43.293	41.762
1990	684	10.375	52.024	42.712
1991	621	12.189	54.078	43.050
1992	628	11.840	52.620	43.917
1993	620	11.673	49.991	47.916
1994	593	12.357	50.984	45.747
1995	622	13.853	52.504	33.804
1996	576	12.798	52.921	39.214
1997	518	12.722	52.025	40.007
1998	565	12.599	51.556	40.543
1999	574	12.715	51.672	39.133
2000	558	12.494	50.372	40.362
2001	573	12.427	49.551	40.845
2002	594	12.264	47.266	39.765
2003	527	13.034	46.938	40.381
2004	502	11.633	47.659	38.060
2005	494	11.822	41.675	35.010
2006	438	9.468	40.918	31.807
2007	424	9.343	40.363	33.917
2008	465	8.582	39.249	31.524
2009	463	8.102	35.509	28.549
2010	472	7.973	35.904	31.120
2001	502	7.473	38.518	30.061
2012	488	7.617	39.236	29.538
2013	487	7.494	40.850	33.082

Table II.3: Tree Crops Production Value at 2005 constant prices in US $

Tree Crops Production Value				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	86	1.634	9.255	4.728
1986	89	1.632	7.010	4.905
1987	90	1.471	9.096	6.323
1988	98	1.720	7.644	4.788
1989	100	1.806	8.586	5.856
1990	113	1.845	5.373	5.798
1991	102	1.586	9.703	5.535
1992	121	1.960	8.245	6.544
1993	114	1.874	8.802	5.870
1994	101	1.941	8.147	5.813
1995	122	1.800	8.610	4.530
1996	111	1.901	7.330	7.003
1997	102	1.652	8.952	8.704
1998	106	1.523	7.495	6.874
1999	115	1.960	9.791	6.842
2000	116	1.861	8.470	7.778
2001	105	1.883	8.668	9.190
2002	127	1.721	8.871	7.680
2003	106	1.190	8.860	10.070
2004	118	1.493	10.991	7.665
2005	112	1.564	10.027	7.048
2006	117	1.549	9.495	8.739
2007	100	1.509	9.318	8.364
2008	91	1.433	9.472	8.231
2009	86	1.513	9.447	9.096
2010	90	1.406	9.085	9.482
2001	97	1.452	9.354	9.881
2012	88	1.491	8.187	6.680
2013	88	1.416	8.170	9.911

Table II.4: Agriculture Production Value added as a percentage of total GDP

Agriculture Production Value Added to GDP (%)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	7,49	7,77	3,10	5,53
1986	7,33	7,92	3,11	5,90
1987	7,43	7,68	3,15	6,26
1988	7,17	7,84	2,98	6,52
1989	6,93	7,62	2,94	5,81
1990	6,86	6,46	3,46	5,73
1991	6,19	7,36	3,55	5,63
1992	5,72	7,10	3,42	5,69
1993	5,61	7,11	3,28	6,27
1994	5,07	7,38	3,27	5,85
1995	4,84	8,11	3,28	4,21
1996	4,41	7,27	3,26	4,76
1997	3,87	6,92	3,15	4,69
1998	4,02	6,59	3,07	4,55
1999	3,90	6,45	3,03	4,21
2000	3,59	6,10	2,85	4,12
2001	3,56	5,84	2,75	4,01
2002	3,57	5,59	2,62	3,79
2003	3,08	5,57	2,60	3,73
2004	2,82	4,74	2,60	3,41
2005	2,67	4,77	2,25	3,03
2006	2,26	3,61	2,16	2,64
2007	2,09	3,44	2,10	2,71
2008	2,21	3,18	2,07	2,49
2009	2,24	3,14	1,98	2,34
2010	2,26	3,27	1,97	2,55
2001	2,40	3,36	2,10	2,48
2012	2,39	3,66	2,19	2,49
2013	2,52	3,73	2,32	2,82

Table II.5: Tree Crops Production Value added as a percentage of total GDP

Tree Crops Production Value Added (% GDP)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	1,21	1,08	0,72	0,79
1986	1,21	1,07	0,53	0,79
1987	1,14	0,99	0,67	0,97
1988	1,14	1,11	0,54	0,70
1989	1,08	1,12	0,58	0,82
1990	1,14	1,15	0,36	0,78
1991	1,02	0,96	0,64	0,72
1992	1,10	1,18	0,54	0,85
1993	1,03	1,14	0,58	0,77
1994	0,86	1,16	0,52	0,74
1995	0,95	1,05	0,54	0,56
1996	0,85	1,08	0,45	0,85
1997	0,76	0,90	0,54	1,02
1998	0,76	0,80	0,45	0,77
1999	0,78	0,99	0,57	0,74
2000	0,74	0,91	0,48	0,79
2001	0,65	0,89	0,48	0,90
2002	0,76	0,78	0,49	0,73
2003	0,62	0,51	0,49	0,93
2004	0,66	0,61	0,60	0,69
2005	0,60	0,63	0,54	0,61
2006	0,60	0,59	0,50	0,72
2007	0,49	0,56	0,49	0,67
2008	0,43	0,53	0,50	0,65
2009	0,42	0,59	0,53	0,75
2010	0,43	0,58	0,50	0,78
2001	0,46	0,65	0,51	0,82
2012	0,43	0,72	0,46	0,56
2013	0,45	0,70	0,46	0,85

Table II.6: Tree Crops Production Value added as a percentage of agriculture production value

Tree Crops Production Value Added (% agriculture production value)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	16,18	13,93	23,21	14,29
1986	16,46	13,57	17,02	13,46
1987	15,35	12,92	21,14	15,49
1988	15,91	14,18	17,99	10,72
1989	15,61	14,74	19,83	14,02
1990	16,59	17,78	10,33	13,58
1991	16,44	13,01	17,94	12,86
1992	19,24	16,55	15,67	14,90
1993	18,31	16,06	17,61	12,25
1994	17,04	15,71	15,98	12,71
1995	19,69	13,00	16,40	13,40
1996	19,35	14,86	13,85	17,86
1997	19,72	12,99	17,21	21,76
1998	18,81	12,09	14,54	16,96
1999	20,13	15,41	18,95	17,48
2000	20,73	14,90	16,81	19,27
2001	18,40	15,15	17,49	22,50
2002	21,36	14,03	18,77	19,31
2003	20,02	9,13	18,88	24,94
2004	23,47	12,83	23,06	20,14
2005	22,67	13,23	24,06	20,13
2006	26,64	16,36	23,21	27,47
2007	23,51	16,15	23,09	24,66
2008	19,62	16,70	24,13	26,11
2009	18,61	18,67	26,60	31,86
2010	19,04	17,64	25,30	30,47
2001	19,32	19,43	24,29	32,87
2012	18,05	19,58	20,87	22,61
2013	18,05	18,89	20,00	29,96

Table II.7: Total Employment in millions persons

Total Employment				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		3.587.889	20.493.636	10.650.274
1986		3.600.000	20.233.645	10.885.093
1987		3.595.185	20.945.631	11.407.284
1988		3.654.135	21.326.805	11.937.857
1989		3.675.494	20.764.131	12.636.221
1990		3.720.502	21.719.318	13.011.304
1991		3.632.883	21.701.191	13.356.310
1992		3.683.562	20.797.500	12.920.619
1993		3.712.676	20.429.578	12.302.041
1994		3.787.981	20.171.014	12.173.684
1995		3.825.490	19.918.182	12.480.000
1996		3.864.040	20.204.918	12.725.001
1997		3.861.616	20.116.949	13.348.750
1998		4.021.229	20.249.999	13.812.987
1999		4.320.246	21.490.385	14.847.888
2000	353.333	4.346.951	21.896.000	15.645.455
2001	357.143	4.497.987	22.262.000	16.210.769
2002	377.273	4.559.440	22.814.895	17.062.712
2003	404.762	4.622.535	23.111.111	17.750.000
2004	409.524	4.663.248	23.771.794	18.300.000
2005	445.946	4.698.261	23.520.000	19.575.001
2006	434.286	4.825.455	23.717.074	20.385.107
2007	461.111	4.878.302	23.902.632	21.122.727
2008	532.258	4.893.333	24.402.857	20.705.000
2009	535.714	4.800.901	23.934.286	19.221.952
2010	535.714	4.651.282	23.586.112	19.173.171
2001	524.138	4.279.487	23.768.571	18.421.952
2012	486.957	3.844.000	23.811.429	17.700.001
2013	452.000	3.617.293	23.505.882	17.538.096

Table II.8: Employment in Agriculture in thousand persons

Agriculture Employment				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		1.036.900	2.254.300	1.949.000
1986		1.026.000	2.165.000	1.752.500
1987		970.700	2.157.400	1.722.500
1988		972.000	2.068.700	1.671.300
1989		929.900	1.910.300	1.604.800
1990		889.200	1.911.300	1.496.300
1991		806.500	1.822.900	1.375.700
1992		806.700	1.663.800	1.253.300
1993		790.800	1.450.500	1.205.600
1994		787.900	1.391.800	1.156.500
1995		780.400	1.314.600	1.123.200
1996		784.400	1.232.500	1.068.900
1997		764.600	1.186.900	1.067.900
1998		719.800	1.174.500	1.063.600
1999		704.200	1.117.500	1.054.200
2000	15.900	712.900	1.094.800	1.032.600
2001	15.000	670.200	1.113.100	1.053.700
2002	16.600	652.000	1.072.300	1.006.700
2003	17.000	656.400	1.040.000	994.000
2004	17.200	545.600	927.100	988.200
2005	16.500	540.300	940.800	1.017.900
2006	15.200	530.800	972.400	958.100
2007	16.600	517.100	908.300	929.400
2008	16.500	513.800	854.100	828.200
2009	15.000	532.900	837.700	788.100
2010	15.000	544.200	849.100	786.100
2001	15.200	500.700	831.900	755.300
2012	11.200	480.500	833.400	743.400
2013	11.300	481.100	799.200	736.600

Table II.9: Employment in Tree Crops in thousand persons

Tree Crops Employment				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		107.609	235.191	195.700
1986		106.965	223.086	177.446
1987		101.843	222.920	175.676
1988		97.225	213.762	169.266
1989		93.471	197.994	164.184
1990		89.881	197.730	155.459
1991		82.550	197.664	144.364
1992		83.169	181.395	130.456
1993		82.038	157.363	128.833
1994		82.610	152.284	123.167
1995		80.467	144.821	122.389
1996		80.725	136.500	115.070
1997		80.936	131.361	120.191
1998		78.329	128.268	119.687
1999		80.177	120.104	119.492
2000	2.181	84.076	121.148	122.259
2001	2.136	78.309	124.021	128.621
2002	2.507	74.332	121.431	123.934
2003	2.840	73.951	119.095	124.572
2004	2.985	64.168	106.464	123.874
2005	2.747	62.738	109.356	127.147
2006	2.810	63.096	117.366	120.789
2007	2.819	61.469	109.275	119.007
2008	3.041	61.704	102.255	105.220
2009	2.884	64.956	104.846	100.630
2010	2.657	67.431	103.876	102.523
2001	2.631	66.724	101.606	100.755
2012	1.886	65.501	98.254	99.230
2013	1.987	64.670	96.064	98.526

Table II.10: Agriculture Employment as a percentage of total employment

Agriculture Employment (% total employment)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		28,9	11,0	18,3
1986		28,5	10,7	16,1
1987		27,0	10,3	15,1
1988		26,6	9,7	14,0
1989		25,3	9,2	12,7
1990		23,9	8,8	11,5
1991		22,2	8,4	10,3
1992		21,9	8,0	9,7
1993		21,3	7,1	9,8
1994		20,8	6,9	9,5
1995		20,4	6,6	9,0
1996		20,3	6,1	8,4
1997		19,8	5,9	8,0
1998		17,9	5,8	7,7
1999		16,3	5,2	7,1
2000	4,50	16,4	5,0	6,6
2001	4,20	14,9	5,0	6,5
2002	4,40	14,3	4,7	5,9
2003	4,20	14,2	4,5	5,6
2004	4,20	11,7	3,9	5,4
2005	3,70	11,5	4,0	5,2
2006	3,50	11,0	4,1	4,7
2007	3,60	10,6	3,8	4,4
2008	3,10	10,5	3,5	4,0
2009	2,80	11,1	3,5	4,1
2010	2,80	11,7	3,6	4,1
2001	2,90	11,7	3,5	4,1
2012	2,30	12,5	3,5	4,2
2013	2,50	13,3	3,4	4,2

Table II.11: Tree Crops Employment as a percentage of total employment

Tree Crops Employment (% total employment)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		3,0	1,1	1,8
1986		3,0	1,1	1,6
1987		2,8	1,1	1,5
1988		2,7	1,0	1,4
1989		2,5	1,0	1,3
1990		2,4	0,9	1,2
1991		2,3	0,9	1,1
1992		2,3	0,9	1,0
1993		2,2	0,8	1,0
1994		2,2	0,8	1,0
1995		2,1	0,7	1,0
1996		2,1	0,7	0,9
1997		2,1	0,7	0,9
1998		1,9	0,6	0,9
1999		1,9	0,6	0,8
2000	0,62	1,9	0,6	0,8
2001	0,60	1,7	0,6	0,8
2002	0,66	1,6	0,5	0,7
2003	0,70	1,6	0,5	0,7
2004	0,73	1,4	0,4	0,7
2005	0,62	1,3	0,5	0,6
2006	0,65	1,3	0,5	0,6
2007	0,61	1,3	0,5	0,6
2008	0,57	1,3	0,4	0,5
2009	0,54	1,4	0,4	0,5
2010	0,50	1,4	0,4	0,5
2001	0,50	1,6	0,4	0,5
2012	0,39	1,7	0,4	0,6
2013	0,44	1,8	0,4	0,6

Table II.12: Tree Crops Employment as a percentage of agriculture employment

Tree Crops Employment (% agriculture employment)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985		10,4	10,4	10,0
1986		10,4	10,3	10,1
1987		10,5	10,3	10,2
1988		10,0	10,3	10,1
1989		10,1	10,4	10,2
1990		10,1	10,3	10,4
1991		10,2	10,8	10,5
1992		10,3	10,9	10,4
1993		10,4	10,8	10,7
1994		10,5	10,9	10,6
1995		10,3	11,0	10,9
1996		10,3	11,1	10,8
1997		10,6	11,1	11,3
1998		10,9	10,9	11,3
1999		11,4	10,7	11,3
2000	13,72	11,8	11,1	11,8
2001	14,24	11,7	11,1	12,2
2002	15,10	11,4	11,3	12,3
2003	16,71	11,3	11,5	12,5
2004	17,36	11,8	11,5	12,5
2005	16,65	11,6	11,6	12,5
2006	18,49	11,9	12,1	12,6
2007	16,98	11,9	12,0	12,8
2008	18,43	12,0	12,0	12,7
2009	19,22	12,2	12,5	12,8
2010	17,71	12,4	12,2	13,0
2001	17,31	13,3	12,2	13,3
2012	16,84	13,6	11,8	13,3
2013	17,58	13,4	12,0	13,4

Table II.13: Imports of Goods and Services at 2005 constant prices in millions US $

Total Imports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	4.509.754	19.277.231	174.545.483	49.109.594
1986	4.015.853	21.952.387	183.825.153	57.547.976
1987	4.586.812	22.422.186	205.945.822	71.815.700
1988	5.193.975	24.066.996	218.223.999	83.364.058
1989	6.237.114	26.587.305	236.880.694	98.134.208
1990	6.593.964	28.811.622	260.083.395	107.575.953
1991	6.724.291	30.493.305	265.007.135	118.702.392
1992	7.963.957	30.821.637	283.861.135	126.797.871
1993	6.499.321	31.015.227	252.081.976	120.172.400
1994	6.961.157	31.480.542	272.373.574	133.925.769
1995	8.122.069	34.296.477	298.398.379	148.752.573
1996	8.509.499	37.704.272	296.057.984	159.762.792
1997	8.614.272	40.885.681	325.520.820	180.380.304
1998	8.660.335	48.311.268	354.330.713	205.824.386
1999	8.870.652	55.309.768	369.640.178	234.411.297
2000	9.687.931	66.471.338	407.554.999	256.658.678
2001	9.669.427	67.130.357	416.217.624	265.656.203
2002	9.634.879	64.826.317	419.264.084	275.151.170
2003	9.541.050	69.619.214	425.397.733	291.422.361
2004	10.203.750	72.694.715	445.260.591	320.789.822
2005	10.363.926	73.315.605	458.759.010	343.332.919
2006	10.954.933	83.073.751	494.536.376	371.363.932
2007	12.101.144	95.949.700	521.108.544	403.164.736
2008	13.038.057	97.216.920	502.081.838	380.511.606
2009	10.945.506	77.429.472	437.395.500	310.821.482
2010	11.440.284	74.773.168	491.600.061	332.338.746
2001	11.369.548	67.708.058	494.188.060	329.665.851
2012	10.846.640	61.547.019	454.382.284	309.250.068
2013	9.370.802	60.407.618	442.983.865	308.273.521

Table II.14: Exports of Goods and Services at 2005 constant prices in millions US $

Total Exports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	3.812.222	15.619.821	191.308.411	81.809.797
1986	3.747.841	18.251.597	194.529.727	82.000.797
1987	4.261.309	19.335.237	202.532.669	86.318.331
1988	4.838.103	18.924.779	213.041.046	89.613.088
1989	5.646.036	19.292.478	231.207.059	90.896.180
1990	6.023.354	18.623.266	245.532.266	95.161.343
1991	5.513.579	19.391.158	240.751.284	103.009.304
1992	6.608.591	21.334.378	258.294.109	110.743.281
1993	6.421.251	20.780.356	281.468.571	119.421.478
1994	6.947.384	22.314.784	308.565.563	139.328.652
1995	8.117.097	22.984.012	347.391.879	152.427.584
1996	8.623.937	23.922.788	353.144.592	167.575.125
1997	8.628.302	29.449.643	370.964.621	192.034.538
1998	9.104.263	30.779.115	381.094.047	207.464.668
1999	9.336.878	38.303.030	377.438.431	224.071.693
2000	10.157.613	46.799.850	422.450.261	247.563.034
2001	10.378.600	46.856.099	433.748.450	256.661.545
2002	9.953.751	43.424.075	421.632.344	260.169.528
2003	9.814.841	43.105.269	416.152.504	269.064.892
2004	10.059.332	51.101.560	441.794.276	280.505.841
2005	10.265.694	52.808.084	456.711.964	285.474.443
2006	10.395.762	55.560.834	494.286.357	299.561.985
2007	10.944.871	61.460.479	524.810.791	324.289.235
2008	10.756.094	63.594.880	508.585.625	321.541.637
2009	9.973.375	51.817.531	416.782.727	286.098.640
2010	10.235.798	54.336.481	465.903.625	313.059.377
2001	10.666.940	54.351.244	490.065.064	336.245.430
2012	10.489.392	54.988.955	501.454.067	339.871.443
2013	9.966.448	56.181.978	505.499.994	354.535.514

Table II.15: Agriculture Imports at 2005 constant prices in millions US $

Agriculture Imports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	181.637	1.443.197	14.758.195	3.500.662
1986	193.449	1.948.392	16.907.832	4.602.257
1987	192.302	2.469.847	19.615.236	5.272.123
1988	195.250	2.289.121	20.829.331	6.285.046
1989	225.833	2.620.026	21.862.739	6.818.368
1990	254.323	3.038.339	23.651.782	8.039.331
1991	265.193	3.019.552	24.686.899	9.147.036
1992	295.777	3.366.221	24.570.238	10.088.420
1993	420.980	3.078.910	20.291.020	9.323.628
1994	525.503	3.397.379	22.879.358	10.843.101
1995	723.346	3.941.597	23.590.641	13.537.262
1996	994.142	3.867.331	25.569.065	13.159.803
1997	975.093	3.711.677	24.136.927	11.837.001
1998	718.565	3.779.747	23.726.349	12.123.359
1999	682.124	3.605.782	22.012.118	11.857.356
2000	707.236	3.193.275	21.608.093	10.541.845
2001	646.851	3.135.698	20.915.678	11.225.631
2002	488.251	3.774.663	22.191.332	12.953.405
2003	513.332	4.744.361	26.831.371	16.319.214
2004	638.257	5.754.111	31.694.199	19.798.359
2005	693.618	5.843.781	32.128.888	21.342.793
2006	789.395	6.544.314	35.146.116	21.657.418
2007	1.012.757	7.927.064	39.634.361	26.752.434
2008	1.316.055	9.058.129	44.836.747	31.577.023
2009	1.111.076	7.879.088	39.392.635	27.219.620
2010	1.156.995	7.504.066	42.589.251	27.786.831
2001	1.271.666	8.091.574	49.937.030	32.811.848
2012	1.189.051	7.245.062	45.288.957	31.678.830
2013	1.195.180	7.767.754	48.066.829	31.777.908

Table II.16: Agriculture Exports at 2005 constant prices in millions US $

Agriculture Exports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	149.429	1.380.575	6.068.905	3.412.520
1986	187.946	1.822.259	6.787.173	4.283.928
1987	204.546	2.003.462	7.906.463	5.866.820
1988	196.697	1.419.917	8.774.715	6.723.326
1989	221.016	2.452.030	9.224.973	6.522.708
1990	300.141	2.473.882	11.134.930	7.825.934
1991	328.349	2.768.039	11.998.226	8.899.717
1992	352.386	3.219.613	13.045.796	9.469.256
1993	335.011	2.628.457	11.905.078	9.755.890
1994	419.052	2.944.014	13.284.787	10.990.297
1995	621.102	3.341.304	14.586.977	13.190.390
1996	831.925	3.657.308	16.889.207	14.964.191
1997	739.651	3.039.343	15.735.392	15.120.133
1998	531.003	2.979.153	16.089.585	14.855.333
1999	472.988	3.015.786	15.921.162	14.032.085
2000	411.540	2.577.316	15.603.560	13.999.088
2001	400.328	2.414.246	15.686.751	14.504.504
2002	242.471	2.517.405	17.453.922	16.452.209
2003	260.754	2.973.361	20.645.345	21.441.638
2004	225.661	3.122.099	24.424.392	24.292.492
2005	227.314	3.682.076	25.313.841	25.081.764
2006	225.322	4.246.235	27.811.611	26.737.586
2007	260.451	4.420.094	31.573.642	31.060.724
2008	285.856	5.152.073	37.079.042	36.464.642
2009	255.015	4.875.687	33.362.833	32.538.551
2010	264.284	5.119.463	36.021.732	35.190.432
2001	310.286	5.417.890	40.992.469	40.902.405
2012	290.161	5.915.795	40.119.807	42.550.601
2013	359.144	6.345.951	43.327.534	45.723.533

Table II.17: Tree Crops Imports at 2005 constant prices in millions US $

Tree Crops Imports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	1.316	1.341	276.772	24.982
1986	1.420	3.817	302.953	32.144
1987	1.546	24.233	474.361	73.606
1988	1.445	23.603	491.989	99.395
1989	1.620	30.352	473.447	106.471
1990	1.990	50.042	581.464	237.034
1991	2.403	48.740	761.333	271.098
1992	5.304	62.066	680.248	361.090
1993	3.780	49.492	565.387	239.910
1994	2.234	86.104	747.637	374.164
1995	5.883	113.094	780.521	508.660
1996	6.518	132.442	906.613	587.621
1997	7.901	123.018	913.937	422.920
1998	5.613	121.093	893.321	435.904
1999	7.156	125.456	882.351	544.342
2000	6.572	93.013	764.341	410.328
2001	8.017	111.472	840.580	475.366
2002	7.783	137.174	896.457	496.890
2003	8.939	188.035	1.245.839	753.760
2004	15.414	249.116	1.355.223	953.691
2005	17.806	272.156	1.374.991	1.029.063
2006	26.664	242.173	1.336.947	994.715
2007	31.138	306.627	1.447.298	1.184.062
2008	36.822	328.227	1.666.094	1.360.933
2009	36.767	287.031	1.695.305	1.104.775
2010	37.610	247.011	1.591.355	1.126.509
2001	38.053	262.815	1.768.329	1.208.999
2012	29.788	216.877	1.631.849	1.165.683
2013	31.662	231.262	1.941.346	1.447.267

Table II.18: Tree Crops Exports at 2005 constant prices in millions US $

Tree Crops Exports				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	30.267	148.113	560.410	669.955
1986	28.382	170.035	701.627	1.201.032
1987	33.904	144.307	775.443	1.334.686
1988	31.391	110.088	807.535	1.426.832
1989	36.588	185.112	806.386	1.413.988
1990	49.521	205.224	1.117.687	1.594.536
1991	43.854	252.893	1.257.221	1.887.765
1992	36.837	219.565	1.232.721	2.137.190
1993	28.385	215.747	1.002.819	2.137.770
1994	28.482	266.991	1.170.947	2.323.369
1995	37.576	240.164	1.249.218	2.652.949
1996	40.957	233.122	1.358.714	2.949.018
1997	34.466	215.484	1.215.323	2.713.243
1998	21.309	229.069	1.295.376	2.481.449
1999	25.686	224.252	1.205.130	2.377.921
2000	20.702	201.610	1.076.479	2.314.395
2001	23.986	283.142	1.125.893	2.168.832
2002	29.671	267.057	1.274.113	2.778.403
2003	37.317	241.222	1.556.398	3.628.136
2004	48.201	269.022	1.534.427	3.856.080
2005	44.663	325.881	1.677.510	3.818.983
2006	43.316	329.803	1.915.950	4.078.760
2007	41.734	399.969	2.263.767	4.503.873
2008	43.613	480.755	2.664.291	5.073.564
2009	32.493	440.468	2.157.944	4.877.832
2010	38.012	535.340	2.381.782	5.061.866
2001	37.264	552.583	2.567.640	5.371.527
2012	33.292	602.851	2.450.192	5.459.489
2013	37.062	644.244	2.556.509	6.069.142

Table II.19: Agriculture Imports as a percentage of total imports

Agriculture Imports (% total imports)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	4,03	7,49	8,46	7,13
1986	4,82	8,88	9,20	8,00
1987	4,19	11,02	9,52	7,34
1988	3,76	9,51	9,54	7,54
1989	3,62	9,85	9,23	6,95
1990	3,86	10,55	9,09	7,47
1991	3,94	9,90	9,32	7,71
1992	3,71	10,92	8,66	7,96
1993	6,48	9,93	8,05	7,76
1994	7,55	10,79	8,40	8,10
1995	8,91	11,49	7,91	9,10
1996	11,68	10,26	8,64	8,24
1997	11,32	9,08	7,41	6,56
1998	8,30	7,82	6,70	5,89
1999	7,69	6,52	5,96	5,06
2000	7,30	4,80	5,30	4,11
2001	6,69	4,67	5,03	4,23
2002	5,07	5,82	5,29	4,71
2003	5,38	6,81	6,31	5,60
2004	6,26	7,92	7,12	6,17
2005	6,69	7,97	7,00	6,22
2006	7,21	7,88	7,11	5,83
2007	8,37	8,26	7,61	6,64
2008	10,09	9,32	8,93	8,30
2009	10,15	10,18	9,01	8,76
2010	10,11	10,04	8,66	8,36
2001	11,18	11,95	10,10	9,95
2012	10,96	11,77	9,97	10,24
2013	12,75	12,86	10,85	10,31

Table II.20: Agriculture Exports as a percentage of total exports

Agriculture Exports (% total exports)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	3,92	8,84	3,17	4,17
1986	5,01	9,98	3,49	5,22
1987	4,80	10,36	3,90	6,80
1988	4,07	7,50	4,12	7,50
1989	3,91	12,71	3,99	7,18
1990	4,98	13,28	4,54	8,22
1991	5,96	14,27	4,98	8,64
1992	5,33	15,09	5,05	8,55
1993	5,22	12,65	4,23	8,17
1994	6,03	13,19	4,31	7,89
1995	7,65	14,54	4,20	8,65
1996	9,65	15,29	4,78	8,93
1997	8,57	10,32	4,24	7,87
1998	5,83	9,68	4,22	7,16
1999	5,07	7,87	4,22	6,26
2000	4,05	5,51	3,69	5,65
2001	3,86	5,15	3,62	5,65
2002	2,44	5,80	4,14	6,32
2003	2,66	6,90	4,96	7,97
2004	2,24	6,11	5,53	8,66
2005	2,21	6,97	5,54	8,79
2006	2,17	7,64	5,63	8,93
2007	2,38	7,19	6,02	9,58
2008	2,66	8,10	7,29	11,34
2009	2,56	9,41	8,00	11,37
2010	2,58	9,42	7,73	11,24
2001	2,91	9,97	8,36	12,16
2012	2,77	10,76	8,00	12,52
2013	3,60	11,30	8,57	12,90

Table II.21: Tree Crops Imports as a percentage of total agriculture imports

Tree Crops Imports (% total agriculture imports)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	0,72	0,09	1,88	0,71
1986	0,73	0,20	1,79	0,70
1987	0,80	0,98	2,42	1,40
1988	0,74	1,03	2,36	1,58
1989	0,72	1,16	2,17	1,56
1990	0,78	1,65	2,46	2,95
1991	0,91	1,61	3,08	2,96
1992	1,79	1,84	2,77	3,58
1993	0,90	1,61	2,79	2,57
1994	0,43	2,53	3,27	3,45
1995	0,81	2,87	3,31	3,76
1996	0,66	3,42	3,55	4,47
1997	0,81	3,31	3,79	3,57
1998	0,78	3,20	3,77	3,60
1999	1,05	3,48	4,01	4,59
2000	0,93	2,91	3,54	3,89
2001	1,24	3,55	4,02	4,23
2002	1,59	3,63	4,04	3,84
2003	1,74	3,96	4,64	4,62
2004	2,42	4,33	4,28	4,82
2005	2,57	4,66	4,28	4,82
2006	3,38	3,70	3,80	4,59
2007	3,07	3,87	3,65	4,43
2008	2,80	3,62	3,72	4,31
2009	3,31	3,64	4,30	4,06
2010	3,25	3,29	3,74	4,05
2001	2,99	3,25	3,54	3,68
2012	2,51	2,99	3,60	3,68
2013	2,65	2,98	4,04	4,55

Table II.22: Tree Crops Exports as a percentage of total agriculture exports

Tree Crops Exports (% total agriculture exports)				
Year	**Cyprus**	**Greece**	**Italy**	**Spain**
1985	20,26	10,73	9,23	19,63
1986	15,10	9,33	10,34	28,04
1987	16,58	7,20	9,81	22,75
1988	15,96	7,75	9,20	21,22
1989	16,55	7,55	8,74	21,68
1990	16,50	8,30	10,04	20,38
1991	13,36	9,14	10,48	21,21
1992	10,45	6,82	9,45	22,57
1993	8,47	8,21	8,42	21,91
1994	6,80	9,07	8,81	21,14
1995	6,05	7,19	8,56	20,11
1996	4,92	6,37	8,04	19,71
1997	4,66	7,09	7,72	17,94
1998	4,01	7,69	8,05	16,70
1999	5,43	7,44	7,57	16,95
2000	5,03	7,82	6,90	16,53
2001	5,99	11,73	7,18	14,95
2002	12,24	10,61	7,30	16,89
2003	14,31	8,11	7,54	16,92
2004	21,36	8,62	6,28	15,87
2005	19,65	8,85	6,63	15,23
2006	19,22	7,77	6,89	15,25
2007	16,02	9,05	7,17	14,50
2008	15,26	9,33	7,19	13,91
2009	12,74	9,03	6,47	14,99
2010	14,38	10,46	6,61	14,38
2001	12,01	10,20	6,26	13,13
2012	11,47	10,19	6,11	12,83
2013	10,32	10,15	5,90	13,27

Annex III: The role of CAP as a socioeconomic parameter of tree crop categories in South Europe

Table III.1: CAP subsidies for selected tree crops in Spain (2003-2016)

Tree crop Categories	2003 - 2011	2011 - 2012	2012 - 2013	2013 - 2014	2014 - 2015	2015 - 2016	2015 - 2020
Almond	190,2 – 153,6	152,8	32,7	15,4	9,1	8,2	New CAP subsidies program is still not published
Olive	75,8						
Peach	824,1						
Oranges and Tangerine	597,8 – 568,8						
Lemon	1214,4 – 113,1						
Grapefruit	190,2 – 153,6						

Source: Fondo Español de Garantía Agraria (FEGA). Ministerio de Agricultura, Alimentación y Medio Ambiente. Gobierno de España Análisis práctico de la nueva PAC para el periodo 2015-2020. Ramón Blanco Orús y F. Javier García Ramos. Innovagri. Eumedia S.A.

Table III.2: CAP subsidies for selected tree crops in Spain (2006-2016)

Tree crop Categories	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2011 - 2012	2012 - 2013	2013 - 2014	2014-2015	2015-2016	2015 - 2020
Almond	190,2	160,2	159,8	155,5	153,6	152,8	32,7	15,4	9,1	New CAP subsidies program is still not published
Hazel	295,2	265,2	264,8	260,5	258,6	257,8	32,7	15,4	9,1	
Citrus for processing										
Oranges, mandarins, clementines and satsumas			597,8	568,8						
Lemons			1.214,4	1.013,1						
Pomelos			61,2	60,8						

Source: Fondo Español de Garantía Agraria (FEGA). Ministerio de Agricultura, Alimentación y Medio Ambiente. Gobierno de España Análisis práctico de la nueva PAC para el periodo 2015-2020. Ramón Blanco Orús y F. Javier García Ramos. Innovagri. Eumedia S.A.

Table III.3: CAP Subsidies in Spanish olive tree cultivations (2007-2010)

Spanish Region	Olive grove Category	2007-2008	2008-2009	2009-2010
ANDALUCIA	a) Areas with great reliance on olive cultivation	83,20	83,07	85,92
	e) Social interest Olive-trees	55,46	55,38	57,28
ARAGON	d) Olive trees at risk of abandonment	59,80	59,80	59,80
	e) Social interest Olive-trees	65,78	65,78	65,78
BALEARES	e) Social interest Olive-trees	54,32	52,00	51,00
CASTILLA - LA MANCHA	d) Olive trees at risk of abandonment			
	Yield lower than 600 kg olives/ha	96,00	100,00	100,00
	Yield between 600-900 kg olives/ha	72,00	75,00	75,00
	Yield between 900-1200 kg olives/ha	60,00	62,50	62,50
	Yield between 1200-1500 kg olives/ha	36,00	37,50	37,50
CASTILLA Y LEON	d) Olive trees at risk of abandonment	72,00	80,00	75,50
CATALUÑA	a) Areas with great reliance on olive cultivation	21,80	22,00	22,50
	b) Olive-trees valuable from the viewpoint of cultivation and landscape	21,80	22,00	22,50
	c) Olive trees in areas with permanent constraints of the natural environment	125,35	126,30	127,10
	d) Olive trees at risk of abandonment	125,35	126,30	127,10
EXTREMADURA	e) Social interest Olive-trees	61,83	57,86	57,93
MADRID	d) Olive trees at risk of abandonment	50,82	50,82	50,82
MURCIA	d) Olive trees at risk of abandonment	99,00	120,00	120,00
	e) Social interest Olive-trees	124,00	150,00	150,00
NAVARRA	e) Social interest Olive-trees	82,50	115,00	119,00
PAIS VASCO	b) Olive-trees valuable from the viewpoint of cultivation and landscape	78,84	75,78	79,37
LA RIOJA	e) Social interest Olive-trees	77,90	74,00	72,50
COMUNIDAD VALENCIANA	c) Olive trees in areas with permanent constraints of the natural environment	60,00	63,00	65,00

Table III.4: CAP subsidies and scenarios for selected tree crops in Italy (2007-2009)

	Average data 2007-2009 Subsidies/ha €	**Simulation 2014-2020 Scenario 1 Δ Subsidies** %	**Simulation 2014-2020 Scenario 2 Δ Subsidies** %
North-Western Italy			
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree)	166,6	39,6	49,0
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree-HERBACEOUS)	278,3	-16,4	-7,2
All farms (Fruit Tree)	86,8	168,1	187,5
All farms (Fruit Tree-HERBACEOUS)	265,9	-12,5	-3,5
North-Eastern Italy			
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree)	123,3	88,6	99,8
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree-HERBACEOUS)	244,7	-5,0	3,9
All farms (Fruit Tree)	59,7	289,4	289,4
All farms (Fruit Tree-HERBACEOUS)	231,4	0,5	9,5
Central Italy			
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree)	92,2	152,3	114,0

Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree-HERBACEOUS)	220,7	5,4	-6,2
All farms (Fruit Tree)	79,9	190,9	146,8
All farms (Fruit Tree-HERBACEOUS)	211,7	9,9	-2,3
Southern Italy			
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree)	445,3	-47,8	-42,6
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree-HERBACEOUS)	294,1	-20,9	-26,1
All farms (Fruit Tree)	368,8	-36,9	-30,7
All farms (Fruit Tree-HERBACEOUS)	278,8	-16,6	-22,3
Islands			
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree)	216,8	7,3	-14,7
Farms with PUA (pagamento unico agro-ambientale) and direct payments (Fruit Tree-HERBACEOUS)	174,7	33,1	4,6
All farms (Fruit Tree)	158,8	46,4	16,3
All farms (Fruit Tree-HERBACEOUS)	149,5	55,6	22,6

Table III.5: CAP subsidies for selected tree crops in selected Regions of Italy (2008-2016)

			Average data 2008-2010 Subsidies/ha €	**Simulation 2014-2020 Scenario 3 Δ Subsidies %**	**Simulation 2014-2020 Scenario 4 Δ Subsidies %**	**Simulation 2014-2020 Scenario 5 Δ Subsidies %**
North-Western Italy						
Farms with PUA (pagamento unico agro-ambientale) and direct payment	Fruit tree crops		221	30,3	46,7	31,3
	including	*grape*	131	120,6	154,1	86,5
		fruit and citrus	308	-6,3	3,9	-26,3
		olive	611	-52,8	-73,6	177,8
	HERBACEOUS-ARBOREAL		228	26,4	49,2	29,4
All farms	Fruit tree crops		109	165,2	194,1	147,5
	including	*grape*	54	431,0	503,7	342,4
		fruit and citrus	169	70,5	85,6	33,1
		olive	459	-37,1	-64,8	269,7
	HERBACEOUS-ARBOREAL		165	74,9	102,0	73,2
North-Eaestern Italy						
Farms with PUA (pagamento unico agro-ambientale) and direct payment	Fruit tree crops		188	53,7	74,9	73,4
	including	*grape*	191	51,2	83,6	55,6
		fruit and citrus	198	45,9	53,0	82,6
		olive				
	HERBACEOUS-ARBOREAL		239	20,6	43,0	49,4
All farms	Fruit tree crops		155	86,0	107,8	113,8
	including	*vite*	162	77,8	114,3	87,3
		frutta e agrumi	157	84,3	84,1	133,3
		olivo				
	HERBACEOUS-ARBOREAL		195	48,2	78,3	85,8

Central Italy						
Farms with PUA (pagamento unico agro-ambientale) and direct payment	Fruit tree crops		160	80,1	42,1	82,3
	including	*grape*	154	87,7	44,4	93,2
		fruit and citrus	161	79,6	51,7	108,3
		olive	227	27,0	5,8	16,2
	HERBACEOUS-ARBOREAL		216	33,5	12,7	14,8
All farms	Fruit tree crops		127	127,3	79,3	129,4
	including	*grape*	122	137,3	82,9	142,8
		fruit and citrus	113	155,9	109,8	194,4
		olive	188	53,6	29,2	36,7
	HERBACEOUS-ARBOREAL		172	68,0	41,5	45,4
Southern Italy						
Farms with PUA (pagamento unico agro-ambientale) and direct payment	Fruit tree crops		480	-39,8	-30,3	-51,9
	including	*grape*	280	3,1	-2,3	-23,7
		fruit and citrus	361	-20,0	-17,8	-40,3
		olive	759	-62,0	-48,1	-66,4
	HERBACEOUS-ARBOREAL		304	-5,1	-12,2	-37,8
All farms	Fruit tree crops		392	-26,5	-15,0	-38,5
	including	*grape*	226	27,9	20,0	1,9
		fruit and citrus	283	2,0	5,5	-15,0
		olive	627	-54,0	-37,2	-58,6
	HERBACEOUS-ARBOREAL		259	11,6	4,3	-26,1
Islands						
Farms with PUA (pagamento unico agro-ambientale) and direct	Fruit tree crops		262	10,2	-27,5	-10,7
	including	*grape*	219	31,6	-16,8	0,8
		fruit and citrus	380	-24,0	-46,8	-32,8
		olive	287	0,6	-34,6	-19,9
	HERBACEOUS-		164	75,6	15,3	42,0

payment	ARBOREAL					
All farms	Fruit tree crops		214	34,6	-12,1	8,0
	including	*grape*	179	61,4	1,3	22,3
		fruit and citrus	331	-12,7	-39,2	-23,3
		olive	219	31,7	-15,1	3,8
	HERBACEOUS-ARBOREAL		131	120,4	41,6	72,7

Table III.6: Subsidies per hectare in the EU 2008 (€)

Member States	Direct Aids	Pillar 2	Sum
Austria	222	186	409
Belgium	408	47	454
Denmark	365	48	414
Finland	237	139	376
France	249	35	329
Germany	325	70	395
Greece	590	114	704
Ireland	308	86	349
Italy	299	127	426
Luxembourg	264	104	369
Netherlands	415	38	452
Portugal	164	169	333
Spain	198	62	260
Sweden	230	89	319
United Kingdom	212	46	258
Bulgaria	55	191	245
Cyprus	133	170	303
Czech Republic	108	112	220
Estonia	45	105	150
Hungary	128	127	255
Latvia	35	169	204
Lithuania	60	94	154
Malta	155	2320	2475
Poland	81	125	205
Romania	31	83	114
Slovakia	81	72	153
Slovenia	115	586	701

Table III.7: Subsidies per hectare in the EU 2008 (€)

Member States	Direct Aids	Pillar 2	Sum
Austria	236	167	403
Belgium	447	57	504
Denmark	394	40	434
Finland	249	126	375
France	310	47	357
Germany	346	82	428
Greece	544	165	709
Ireland	324	85	409
Italy	343	113	456
Luxembourg	283	101	384
Netherlands	469	54	529
Portugal	174	176	350
Spain	206	52	258
Sweden	247	86	333
United Kingdom	247	46	294
Bulgaria	190	130	320
Cyprus	366	144	511
Czech Republic	258	121	379
Estonia	112	125	237
Hungary	312	138	450
Latvia	83	85	168
Lithuania	143	96	239
Malta	494	1032	1526
Poland	197	120	316
Romania	92	99	191
Slovakia	200	165	366
Slovenia	295	231	526

Table III.8: Subsidies per EU member state in 2008 (€ million)

Member States	Direct Aids	Market	Pillar 2	Sum
Austria	709	38	595	1342
Belgium	560	188	64	812
Denmark	972	90	129	1191
Finland	544	16	319	879
France	8081	868	959	9908
Germany	5496	209	1187	6892
Greece	2405	150	463	3019
Ireland	1276	28	355	1659
Italy	3813	881	1617	6310
Luxembourg	35	1	14	49
Netherlands	794	184	73	1050
Portugal	570	148	588	1306
Spain	4921	948	1549	7417
Sweden	718	-27	227	968
United Kingdom	3422	74	736	4233
EU-15	34315	3795	8924	47034
Bulgaria	166	12	581	760
Cyprus	19	9	25	53
Czech Republic	380	21	393	794
Estonia	41	1	96	137
Hungary	543	27	538	1107
Latvia	62	2	301	364
Lithuania	158	16	249	423
Malta	2	1	24	27
Poland	1248	206	1933	3386
Romania	422	52	1147	1621
Slovakia	156	9	287	452
Slovenia	56	6	140	202
EU-12	3254	360	5711	9325
Total	37569	4155	14635	56359

Table III.9: Subsidies per EU member state in 2013 (€ million)

Memeber States	Direct Aids	Pillar 2	Sum
Austria	752	533	1285
Belgium	615	78	693
Denmark	1049	106	1155
Finland	571	289	859
France	8521	1279	9800
Germany	5853	1387	7240
Greece	2217	672	2888
Ireland	1341	352	1692
Italy	4370	1441	5811
Luxembourg	37	13	50
Netherlands	898	103	1001
Portugal	606	611	1217
Spain	5139	1284	6424
Sweden	771	267	4737
United Kingdom	3988	749	4737
EU-15	36727	9163	45890
Bulgaria	580	396	976
Cyprus	53	21	75
Czech Republic	909	424	1334
Estonia	101	113	214
Hungary	1319	585	1904
Latvia	146	151	298
Lithuania	380	254	634
Malta	5	11	16
Poland	3045	1851	4896
Romania	1264	1356	2620
Slovakia	388	320	708
Slovenia	114	113	257
EU-12	8336	5595	13930
Total	45062	14758	59821

Annex IV: MSDSs of Herbicides and Pesticides used at the selected tree crops

Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
607-315-00-8	213-997-4	1071-83-6	glyphosate (ISO) N-(phosphonomethyl)glycine

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Eye Dam. 1	H318	H318		GHS09 GHS05 Dgr		
Aquatic Chronic 2	H411	H411				

Signal Words	Pictograms
Danger	 Environment  Corrosion

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xi; R41 N; R51-53	41 51/53	(2) 26 39 61	Xi N	-	-

Seveso III Data

Disclaimer: Please note that some of the substances covered by the Seveso Directive can belong to more than one Seveso categories. It will be up to the users to decide whether their substance or mixture fall in one or in more of these classification categories depending on the tonnage bands and the concentrations.
Please also note that ECHA is not an authority for the Seveso Directive and that the Seveso categorisation below is provided for information only. The Seveso III Directive (Directive 2012/18/EU repealing Directive 96/82/EC (Seveso II) from 1 June 2015) is the only authentic legal reference and that the information in this inventory does not constitute legal advice. For further information on Seveso, please ask your national authority.

Seveso Data	
Seveso Substance	Seveso Categories
Yes	E2

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
213-997-4	glyphosate	1071-83-6

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Eye Dam. 1	H318	H318		GHS09 GHS05 Dgr				State/Form IUPAC Names	214	
Aquatic Chronic 2	H411	H411								
Eye Dam. 1	H318	H318		GHS09 GHS05 Dgr				State/Form IUPAC Names	23	
Aquatic Chronic 2	H411	H411								
Eye Dam. 1	H318	H318		GHS09 GHS05 Dgr			✔	State/Form IUPAC Names	2	
Aquatic Chronic 2	H411	H411								
Eye Dam. 1	H318	H318		GHS07 GHS09 GHS05 Dgr				State/Form IUPAC Names	1	
Aquatic Chronic 2	H411	H411								
Aquatic Chronic 2	H411	H411		GHS09				State/Form IUPAC Names	1	
Eye Dam. 1	H318	H318		GHS05 Dgr					1	
Aquatic Chronic 4	H413	H413								

Number of Aggregated Notifications: 6

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
606-143-00-0	265-610-3	65195-55-3	avermectin B1a (purity ≥80%)

ATP Inserted / Updated: ATP03
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 2	H300	H300		GHS09 GHS06 GHS08 Dgr	STOT RE 2; H373: 0,5% ≤ C < 5% M=10000 STOT RE 1; H372: C ≥ 5%	
Acute Tox. 1	H330	H330				
Repr. 2	H361d	H361d				
STOT RE 1	H372 (nervous system)	H372 (nervous system)				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Danger	 Environment  Skull and crossbones  Health hazard

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Repr. Cat. 3; R63 T+; R26/28 T; R48/23/25 N; R50-53	63 26/28 48/23/25 50/53	28 36/37 45 60 61	T+ N	C ≥ 5%	T; R48/23
				0,5% ≤ C <5%	Xn; R48/20
				C ≥ 0,0025%	N; R50-53
				0,00025% ≤ C <0,0025%	N; R51-53
				0,000025% ≤ C<0,00025%	R52-53

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	H1 E1 H2

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
265-610-3	abamectin	65195-55-3

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Nur... Noti...
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)					
Acute Tox. 2	H300	H300		GHS06 GHS09 GHS08 Dgr	M=10000			State/Form	4
Acute Tox. 3	H311	H311							
Acute Tox. 1	H330	H330							
Repr. 2	H361	H361							
STOT RE 1	H372 (not specified)	H372							
Aquatic Acute 1	H400								
Aquatic Chronic 1	H410	H410							
Acute Tox. 2	H300	H300		GHS06 GHS09 Dgr				State/Form IUPAC Names	3
Acute Tox. 3	H311	H311							
Aquatic Acute 1	H400	H400							
Acute Tox. 2	H300	H300		GHS06 GHS09 Dgr				State/Form IUPAC Names	1
Acute Tox. 4	H332	H332							
Aquatic Acute 1	H400	H400							
Acute Tox. 2	H300			GHS06 GHS09 GHS08 Dgr	Aquatic Chronic 2: 0,00025% ≤ C < 0,0025% STOT RE 1: C ≥ 5% Aquatic Chronic 1: C ≥ 0,0025% Aquatic Chronic 3: 0,000025% ≤ C < 0,00025% STOT RE 2: 0,5% ≤ C < 5% M(Chronic)=10000 M=10000			State/Form IUPAC Names	
Acute Tox. 1	H330								
Repr. 2	H361	H361							
STOT RE 1	H372 (CNS)	H372							
Aquatic Acute 1	H400								
Aquatic Chronic 1	H410	H410							
		H300+H330							

Number of Aggregated Notifications: 4

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Summary of Classification and Labelling

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
		500008-45-7

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Aquatic Acute 1	H400			GHS09 Wng	M=10			State/Form IUPAC Names	45	
Aquatic Chronic 1	H410	H410								
Aquatic Acute 1	H400			GHS09 Wng				State/Form	27	
Aquatic Chronic 1	H410	H410								
Eye Irrit. 2	H319	H319		GHS07 Wng				IUPAC Names	24	
STOT SE 3	H335 (Not provided)	H335								

Number of Aggregated Notifications: 3

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
015-084-00-4	220-864-4	2921-88-2	chlorpyrifos (ISO) O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 3 *	H301	H301		GHS09 GHS06 Dgr	M=10000	
Aquatic Acute 1	H400	H400				
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Danger	 Environment  Skull and crossbones

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
T; R25 N; R50-53	25 50/53	(1/2) 45 60 61	T N	C ≥ 0,0025 %	N; R50-53
				0,00025 % ≤ C < 0,0025 %	N; R51-53
				0,000025 % ≤ C < 0,00025 %	R52-53

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
220-864-4	chlorpyrifos	2921-88-2

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000		✔	State/Form IUPAC Names	47	
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				State/Form IUPAC Names	45	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000			State/Form IUPAC Names	36	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr					30	
Acute Tox. 4	H312	H312								
Eye Irrit. 2	H319	H319								
Acute Tox. 2	H330	H330								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000			State/Form	27	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				IUPAC Names	23	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000			State/Form IUPAC Names	14	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr					4	
Acute Tox. 3	H311	H311								
Acute Tox. 1	H330	H330								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301 (H301)		GHS06 GHS09 Dgr				IUPAC Names	4	
Aquatic Acute 1	H400	H400 (H400)								
Aquatic Chronic 1	H410	H410 (H410)								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000		✔	State/Form IUPAC Names	3	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000			State/Form IUPAC Names	1	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410									
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=10000			State/Form	1	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		Dgr				IUPAC Names	1	
Aquatic Acute 1	H400	H400								
		H410								

Number of Aggregated Notifications: 13

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
607-319-00-X	258-256-6	52918-63-5	deltamethrin (ISO) (S)-α-cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate

ATP Inserted / Updated: CLP00/ATP01
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 3 *	H301	H301		GHS09 GHS06 Dgr	M=1000000	
Acute Tox. 3 *	H331	H331				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Danger	 Environment  Skull and crossbones

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
T; R23/25 N; R50-53	23/25 50/53	(1/2) 24 28 36/37/39 38 45 60 61	T N	C ≥ 0,000025 %	N; R50-53
				0,0000025 % ≤ C < 0,000025 %	N; R51-53
				0,00000025 % ≤ C < 0,0000025 %	R52-53

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1 H2

Notified classification and labelling

General Information

EC	EC Name	CAS

Number		Number
258-256-6	α-cyano-3-phenoxybenzyl [1R-[1α(S*),3α]]-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate	52918-63-5

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	J Ei
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				IUPAC Names	68	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301	EUH401	GHS06 GHS09 Dgr	M=1000000			State/Form IUPAC Names	57	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=1000000			State/Form IUPAC Names	29	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 2	H300	H300		GHS06 GHS09 Dgr					4	
Acute Tox. 3	H311	H311								
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				State/Form	3	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301	EUH401	GHS06 GHS09 Dgr	M=100000			State/Form IUPAC Names	2	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Not Classified									1	
Acute Tox. 3	H301	H301	EUH210	GHS06 GHS09 Dgr	Aquatic Acute 1: 97% < C < 100% Acute Tox. 3: 97% < C < 100% Aquatic Chronic 1: 97% < C < 100%			State/Form IUPAC Names	1	
Acute Tox. 3	H331	H331								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS07 GHS06 GHS09 GHS08 Dgr					1	
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 3	H331	H331								
STOT SE 3	H335 (Respiratory sys...)	H335								
Repr. 2	H361	H361								
STOT RE 1	H372 (Damage to organ...)	H372								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr	M=1000000		✔	State/Form IUPAC Names	1	
Acute Tox. 3	H331	H331								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				State/Form IUPAC Names	1	
Acute Tox. 3	H331	H331								
Aquatic Chronic 1	H410	H410								

Acute Tox. 3	H301			GHS06 GHS09 Dgr				IUPAC Names	1	
Acute Tox. 3	H331									
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
		H301+H331								

Number of Aggregated Notifications: 12

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
015-051-00-4	200-480-3	60-51-5	dimethoate (ISO) O,O-dimethyl methylcarbamoylmethyl phosphorodithioate

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 4 *	H302	H302		GHS07 Wng		
Acute Tox. 4 *	H312	H312				

Signal Words	Pictograms
Warning	 Exclamation mark

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xn; R21/22	21/22	(2) 36/37	Xn	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
No	

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
200-480-3	dimethoate	60-51-5

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 4	H302	H302		GHS07 Wng				State/Form IUPAC Names	206	
Acute Tox. 4	H312	H312								
Acute Tox. 4	H302			GHS07 Wng				IUPAC Names	45	
Acute Tox. 4	H312									
		H302+H312								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr					4	
Acute Tox. 3	H311	H311								
Aquatic Acute 1	H400	H400								
Acute Tox. 4	H302	H302		GHS07 Wng			✔	State/Form IUPAC Names	1	
Acute Tox. 4	H312	H312								
Acute Tox. 4	H302	H302		GHS07 GHS02 GHS09 GHS08 Wng				State/Form IUPAC Names	1	
Acute Tox. 4	H312									
		H304								
		H317								
		H411								
		H226								
		H332								

Number of Aggregated Notifications: 5

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
607-076-00-X	219-459-5	2439-10-3	dodine (ISO) dodecylguanidinium acetate

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 4 *	H302	H302		GHS07 GHS09 Wng		
Skin Irrit. 2	H315	H315				
Eye Irrit. 2	H319	H319				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Warning	 Exclamation mark  Environment

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xn; R22 Xi; R36/38 N; R50-53	22 36/38 50/53	(2) 26 60 61	Xn N	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number

219-459-5	dodine	2439-10-3

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	28	
Skin Irrit. 2	H315	H315								
Eye Irrit. 2	H319	H319								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				IUPAC Names	23	
Skin Irrit. 2	H315	H315								
Eye Irrit. 2	H319	H319								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form	3	
Skin Irrit. 2	H315	H315								
Eye Irrit. 2	H319	H319								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	2	
Skin Irrit. 2	H315	H315								
Eye Irrit. 2	H319	H319								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng	M=100			State/Form IUPAC Names	2	
Skin Irrit. 2	H315	H315								
Eye Irrit. 2	H319	H319								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 Dgr				IUPAC Names	2	
Skin Irrit. 2	H315	H315								
Eye Dam. 1	H318	H318								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
		H331								

Number of Aggregated Notifications: 6

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
016-022-00-9	200-837-3	75-08-1	ethanethiol ethyl mercaptan

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Flam. Liq. 2	H225	H225		GHS07 GHS09 GHS02 Dgr		
Acute Tox. 4 *	H332	H332				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Danger	 Exclamation mark  Environment  Flame

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
F; R11 Xn; R20 N; R50-53	11 20 50/53	(2) 16 25 60 61	F Xn N	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	P5a P5b P5c E1

Notified classification and labelling

General Information

EC	EC Name	CAS

Number		Number
200-837-3	ethanethiol	75-08-1

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Flam. Liq. 1	H224	H224		GHS07 GHS02 GHS09 Dgr	M=10 M(Chronic)=10			State/Form IUPAC Names	2	✔
Acute Tox. 4	H302	H302								
Skin Sens. 1B	H317	H317								
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr				State/Form IUPAC Names	647	
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr				State/Form IUPAC Names	249	
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 1	H224	H224		GHS07 GHS02 GHS09 Dgr				State/Form IUPAC Names	35	
Acute Tox. 4	H302	H302								
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 1	H224	H224		GHS07 GHS02 GHS09 Dgr				State/Form	32	
Acute Tox. 4	H302									
Acute Tox. 4	H332									
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
		H302+H332								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr	M=1				27	
Acute Tox. 4	H302									
Acute Tox. 4	H332									
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr					4	
Acute Tox. 4	H302	H302								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr				State/Form	3	
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr					2	
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Flam. Liq. 2	H225	H225		GHS07 GHS02 GHS09 Dgr				State/Form IUPAC Names	2	
Acute Tox. 4	H332	H332								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								

Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
612-252-00-4	428-040-8	138261-41-3	imidacloprid (ISO) 1-(6-chloropyridin-3-ylmethyl)-N-nitroimidazolidin-2-ylidenamine

ATP Inserted / Updated: ATP01

CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 4 *	H302	H302		GHS07 GHS09 Wng		
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Warning	 Exclamation mark  Environment

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xn; R22 N; R50-53	22 50/53	(2) 22 57 60 61	Xn N	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number

428-040-8		138261-41-3

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	25	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	21	
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	8	
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng					3	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 Wng				State/Form IUPAC Names	1	
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								

Number of Aggregated Notifications: 5

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Summary of Classification and Labelling

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
		91465-08-6

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				IUPAC Names	45	
Acute Tox. 3	H311	H311								
Acute Tox. 2	H330	H330								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				IUPAC Names	35	
Acute Tox. 3	H311	H311								
Acute Tox. 2	H330	H330								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Aquatic Chronic 1	H410	H410		GHS09 GHS06 Dgr				IUPAC Names	23	
		H301								
		H330								
		H312								
Acute Tox. 3	H301	H301	EUH401	GHS06 GHS09 Dgr	M=10000			State/Form IUPAC Names	2	
Acute Tox. 4	H312	H312								
Acute Tox. 2	H330	H330								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 3	H301	H301		GHS06 GHS09 Dgr				State/Form IUPAC Names	1	
Acute Tox. 3	H311	H311								
Acute Tox. 2	H330	H330								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								

Number of Aggregated Notifications: 5

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Flam. Liq. 1	H224	H224		GHS07 GHS02 GHS09 Dgr					1		
Acute Tox. 4	H332	H332									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									

Number of Aggregated Notifications: 11

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
613-303-00-3	429-800-1	95737-68-1	2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine

ATP Inserted / Updated: ATP01
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Aquatic Acute 1	H400			GHS09 Wng		
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Warning	 Environment

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
N; R50-53	50/53	60 61	N	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
429-800-1		95737-68-1

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Aquatic Acute 1	H400			GHS09 Wng				State/Form IUPAC Names	24	
Aquatic Chronic 1	H410	H410								
Aquatic Acute 1	H400	H400		GHS09 Wng					3	
Aquatic Chronic 1	H410	H410								
Aquatic Acute 1	H400			GHS09 Wng				State/Form IUPAC Names	2	
Aquatic Chronic 1	H410	H410								

Number of Aggregated Notifications: 3

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
016-094-00-1	231-722-6	7704-34-9	sulfur

ATP Inserted / Updated: ATP01
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Skin Irrit. 2	H315	H315		GHS07 Wng		

Signal Words	Pictograms
Warning	 Exclamation mark

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xi; R38	38	(2) 46	Xi	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
No	

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
231-722-6	sulfur	7704-34-9

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-	Notes	Classification affected by Impurities /	Additional Notified Information	Number of Notifiers	Joint Entries
			Supplementary	Pictograms,						

Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Signal Word Code(s)	**Factors**		**Additives**				
Skin Irrit. 2	H315	H315		GHS07 Wng				State/Form IUPAC Names	1818	✔	
Self-react. C	H242	H242		GHS07 GHS02 Wng		Note T		State/Form IUPAC Names	35		
Acute Tox. 4	H302	H302									
Skin Irrit. 2	H315										
Acute Tox. 4	H332	H332									
Aquatic Chronic 3	H412	H412									
		H315		GHS07 Wng					11		
Flam. Sol. 2	H228	H228		GHS07 GHS02 Wng			✔	State/Form IUPAC Names	7		
Skin Irrit. 2	H315	H315									
Skin Irrit. 2	H315	H315 (H315)		GHS07 Wng				IUPAC Names	4		
Flam. Sol. 2	H228	H228		GHS07 GHS02 Wng					4		
Skin Irrit. 2	H315	H315									
Eye Irrit. 2	H319	H319									
STOT SE 3	H335 (Respiratory tra...) (Inhalation)	H335 (I)									
Not Classified									3		
		H228		GHS07 GHS02 Wng					2		
		H315									
Eye Irrit. 2	H319	H319		GHS07 Wng				State/Form	2		
		H335									
Skin Irrit. 2	H315	H315		GHS07 Wng			✔	State/Form IUPAC Names	2		
Flam. Sol. 2	H228	H228		GHS07 GHS02 Wng				State/Form IUPAC Names	2		
Skin Irrit. 2	H315										
		H314									
Flam. Sol. 2	H228	H228		GHS02 Wng				State/Form IUPAC Names	2		
Flam. Sol. 2	H228	H228		GHS07 GHS02 Wng				State/Form IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Irrit. 2	H315	H315		GHS07 Wng				State/Form IUPAC Names	1		
Eye Irrit. 2	H319	H319									
Skin Irrit. 2	H315	H315		GHS07 Wng				State/Form	1		

Number of Aggregated Notifications: 15

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
006-069-00-3	245-740-7	23564-05-8	thiophanate-methyl (ISO) 1,2-di-(3-methoxycarbonyl-2-thioureido)benzene

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng		
Acute Tox. 4 *	H332	H332				
Muta. 2	H341	H341				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Warning	 Exclamation mark  Environment  Health hazard

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Muta. Cat. 3; R68 Xn; R20 R43 N; R50-53	20 43 50/53 68	(2) 36/37 46 60 61	Xn N	-	-

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC	EC Name	CAS

Number		Number
245-740-7	thiophanate-methyl	23564-05-8

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	70	
Acute Tox. 4	H332	H332								
Muta. 2	H341	H341								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	69	
Acute Tox. 4	H332	H332								
Muta. 2	H341	H341								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	38	
Acute Tox. 4	H332	H332								
Muta. 2	H341	H341								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	20	
Acute Tox. 4	H332	H332								
Muta. 2	H341	H341								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Skin Sens. 1	H317	H317		GHS07 GHS09 GHS08 Wng					3	
Acute Tox. 4	H332	H332								
Muta. 2	H341	H341								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								

Number of Aggregated Notifications: 5

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
006-005-00-4	205-286-2	137-26-8	thiram (ISO) tetramethylthiuram disulphide

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 4 *	H302	H302		GHS07 GHS09 GHS08 Wng	M=10	
Skin Irrit. 2	H315	H315				
Skin Sens. 1	H317	H317				
Eye Irrit. 2	H319	H319				
Acute Tox. 4 *	H332	H332				
STOT RE 2 *	H373	H373 **				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Warning	 Exclamation mark  Environment  Health hazard

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
Xn; R20/22-48/22 Xi; R36/38 R43 N; R50-53	20/22 36/38 43 48/22 50/53	(2) 26 36/37 60 61	Xn N	C ≥ 2,5 %	N; R50-53
				0,25 % ≤ C < 2,5 %	N; R51-53
				0,025 % ≤ C < 0,25 %	R52-53

Seveso III Data

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Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
205-286-2	thiram	137-26-8

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M(Chronic)=10			State/Form IUPAC Names	1	✔
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
STOT RE 2	H373 (liver) (Oral)	H373 (blood, oral rou...)								
Aquatic Chronic 1	H410	H410								
		H400								
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	158	
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
STOT RE 2	H373	H373								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	81	
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
STOT RE 2	H373	H373								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	69	
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
STOT RE 2	H373 (not available)	H373								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	62	
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								
Acute Tox. 4	H332	H332								
STOT RE 2	H373	H373								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS08				IUPAC Names	47	
Skin Irrit. 2	H315	H315								
Skin Sens. 1	H317	H317								
Eye Irrit. 2	H319	H319								

Acute Tox. 4	H332	H332		Wng							
STOT RE 2	H373 (Not provided)	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	45		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (not specified)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng				IUPAC Names	35		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (blood)	H373									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng					30		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (kidneys, liver ...)	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form	27		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (not specified)										
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng				State/Form IUPAC Names	25		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	19		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (Skin, Mucous me...)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302									

Skin Irrit. 2	H315	H315		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	16		
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (not specified)										
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
		H315		GHS07 GHS09 GHS08 Wng					11		
		H410									
		H332									
		H373									
		H400									
		H317									
		H319									
		H302									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form	3		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	2		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (unknown)	H373									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302	EUH401	GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	2		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (liver)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10		✔	State/Form IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (Is not known) (Oral)	H373									
Aquatic Acute 1	H400										
		H410									

Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (unknown)										
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
		H335									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			State/Form IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (unknown)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS07 GHS09 GHS08 Wng	M=10			IUPAC Names	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (liver, kidney)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302			GHS07 GHS09 GHS08 Wng				State/Form	1		
Skin Irrit. 2	H315	H315									
Skin Sens. 1	H317	H317									
Eye Irrit. 2	H319	H319									
Acute Tox. 4	H332	H332									
STOT RE 2	H373 (neurotoxic)	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									

Number of Aggregated Notifications: 23

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Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC Number	CAS Number	International Chemical Identification
006-012-00-2	205-288-3	137-30-4	ziram (ISO) zinc bis dimethyldithiocarbamate

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 4 *	H302	H302		GHS09 GHS06 GHS08 GHS05 Dgr	M=100	
Skin Sens. 1	H317	H317				
Eye Dam. 1	H318	H318				
Acute Tox. 2 *	H330	H330				
STOT SE 3	H335	H335				
STOT RE 2 *	H373	H373 **				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms
Danger	 Environment  Skull and crossbones  Health hazard  Corrosion

DSD Classification (Table 3.2)

Classification	Risk Phrases	Safety Phrases	Indication of danger	Concentration Limits	
				Concentration	Classification
T+; R26 Xn; R22-48/22 Xi; R37-41 R43 N; R50-53	22 26 37 41 43 48/22 50/53	(1/2) 22 26 28 36/37/39 45 60 61	T+ N	C ≥ 0,25 %	N; R50-53
				0,025 % ≤ C < 0,25 %	N; R51-53
				0,0025 % ≤ C < 0,025 %	R52-53

Seveso III Data

Disclaimer: Please note that some of the substances covered by the Seveso Directive can belong to more than one Seveso categories. It will be up to the users to decide whether their substance or mixture fall in one or in more of these classification categories depending on the tonnage bands and the concentrations.
Please also note that ECHA is not an authority for the Seveso Directive and that the Seveso categorisation below is provided for information only. The Seveso III Directive (Directive 2012/18/EU repealing Directive 96/82/EC (Seveso II) from 1 June 2015) is the only authentic legal reference and that the information in this inventory does not constitute legal advice. For further information on Seveso, please ask your national authority.

Seveso Data	
Seveso Substance	Seveso Categories
Yes	E1 H2

Notified classification and labelling

General Information

EC Number	EC Name	CAS Number
205-288-3	ziram	137-30-4

Notified classification and labelling according to CLP criteria

Classification		Labelling			Specific Concentration limits, M-Factors	Notes	Classification affected by Impurities / Additives	Additional Notified Information	Number of Notifiers	Joint Entries
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)						
Acute Tox. 3	H301	H301		GHS06 GHS09 GHS05 GHS08 Dgr	M=10 M(Chronic)=1			IUPAC Names	2	✔
Skin Sens. 1	H317	H317								
Eye Dam. 1	H318	H318								
Acute Tox. 2	H330	H330								
STOT SE 3	H335 (Respiratory tra...) (Inhalation)	H335								
STOT RE 2	H373 (liver, spleen, ...) (Oral)	H373 (Affected organs...)								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			State/Form IUPAC Names	57	
Skin Sens. 1	H317	H317								
Eye Dam. 1	H318	H318								
Acute Tox. 2	H330	H330								
STOT SE 3	H335	H335								
STOT RE 2	H373	H373								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS08 Dgr				IUPAC Names	48	
Skin Sens. 1	H317	H317								
Eye Dam. 1	H318	H318								
Acute Tox. 2	H330	H330								
STOT SE 3	H335 (Not provided)	H335								
STOT RE 2	H373 (Not provided)	H373								
Aquatic Acute 1	H400	H400								
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			IUPAC Names	45	
Skin Sens. 1	H317	H317								
Eye Dam. 1	H318	H318								
Acute Tox. 2	H330	H330								
STOT SE 3	H335 (not specified)	H335								
STOT RE 2	H373 (not specified)	H373								
Aquatic Acute 1	H400									
Aquatic Chronic 1	H410	H410								
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr					30	
Skin Sens. 1	H317	H317								
Eye Dam. 1	H318	H318								
Acute Tox. 2	H330	H330								
STOT SE 3	H335 (Not available)	H335								
	H373 (Not									

STOT RE 2	available)	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			State/Form	27		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335 (not specified)	H335									
STOT RE 2	H373 (not specified)										
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			IUPAC Names	23		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335	H335									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
		H410		GHS06 GHS09 GHS05 GHS08 Dgr					11		
		H335									
		H330									
		H373									
		H302									
		H400									
		H317									
		H318									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			State/Form IUPAC Names	5		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335	H335									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302 (H302)		GHS06 GHS09 GHS05 GHS08 Dgr				IUPAC Names	4		
Skin Sens. 1	H317	H317 (H317)									
Eye Dam. 1	H318	H318 (H318)									
Acute Tox. 2	H330	H330 (H330)									
STOT SE 3	H335 (respiratory sys...)	H335 (H335)									
STOT RE 2	H373 (Damage to Organ...)	H373 (H373)									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410 (H410)									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100				3		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT RE 2	H373	H373									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									

		H335									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			State/Form IUPAC Names	2		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335 (unknown)	H335									
STOT RE 2	H373 (unknown)	H373									
Aquatic Acute 1	H400										
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 GHS08 Dgr	M=100			State/Form IUPAC Names	1		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335 (unknown)	H335									
STOT RE 2	H373 (unknown)	H373									
Aquatic Chronic 1	H410	H410									
Acute Tox. 4	H302	H302		GHS06 GHS09 GHS05 Dgr				State/Form IUPAC Names	1		
Skin Sens. 1	H317	H317									
Eye Dam. 1	H318	H318									
Acute Tox. 2	H330	H330									
STOT SE 3	H335 (organs)	H335									
Aquatic Acute 1	H400	H400									
Aquatic Chronic 1	H410	H410									

Number of Aggregated Notifications: 14

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