

Sector Study on Horticulture in Portugal



December 2023

1.	<u>OVERVIEW</u>	5
2.	<u>SOIL, WATER AND LAND USE RESTRICTIONS</u>	19
3.	<u>FINANCING AND REGULATORY ISSUES</u>	31
4.	<u>MAIN HORTICULTURE CROPS</u>	50
5.	<u>MAIN VALUE CHAIN CHARACTERISTICS</u>	83

Acronyms

EDM – Entre Douro e Minho

TM – Trás-os-Montes

BL – Beira Litoral

BI – Beira Interior

RO – Ribatejo e Oeste

ALE – Alentejo

ALG – Algarve

AZR – Açores

MAD – Madeira

SA – Total Agricultural Area

SAU – Agricultural Used Area

SAC - Agricultural Cultivated Area

Introduction

The increasing interest shown by Dutch companies and entrepreneurs to become acquainted and, eventually, deciding to invest in the Portuguese agricultural sector has led the Embassy of the Kingdom of the Netherlands to commission to AGRO.GES the preparation of an independent study on the horticultural sector in Portugal.

This study aims at providing Dutch investors with an overview of the Portuguese agricultural sector, with a particular focus on the horticultural sector, its current situation and expected evolution.

As such, the study presents an overview of the main national and regional agriculture-related indicators, followed by an overview of the main soil, water and land use issues. A detailed analysis of a wide range of specific crops is then presented, allowing for a more in-depth knowledge on how these crops are being implemented in Portugal.

The study continues with the presentation of the main agricultural value chains, including a focus on covered cultivation in Portugal.

Finally, the main constraints to be faced by a foreign investor and the existing financing opportunities are also addressed.



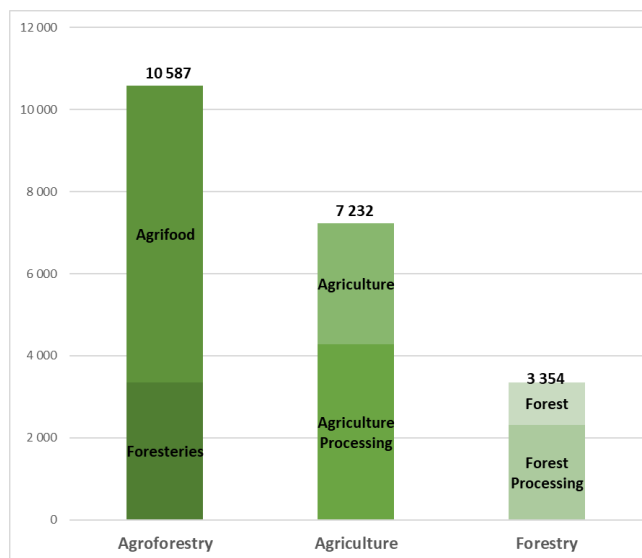
1. OVERVIEW

1. Overview

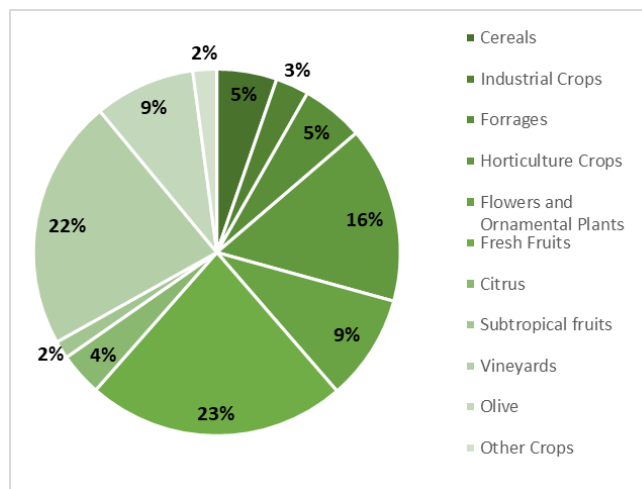
The agroforestry sector typically comprises four main categories: Agriculture, Agricultural Processing, Forestry, and Forestry Processing. As depicted on the map, the forestry sector plays a crucial role in the Portuguese territory, closely intertwined with agricultural operations.

In 2019, this agroforestry complex contributed a Gross Value Added of 10.6 billion euros, constituting 5% of the GDP. Agriculture made up 28%, the Agricultural Processing 40%, Forestry 10%, and the Forestry Processing 22%.

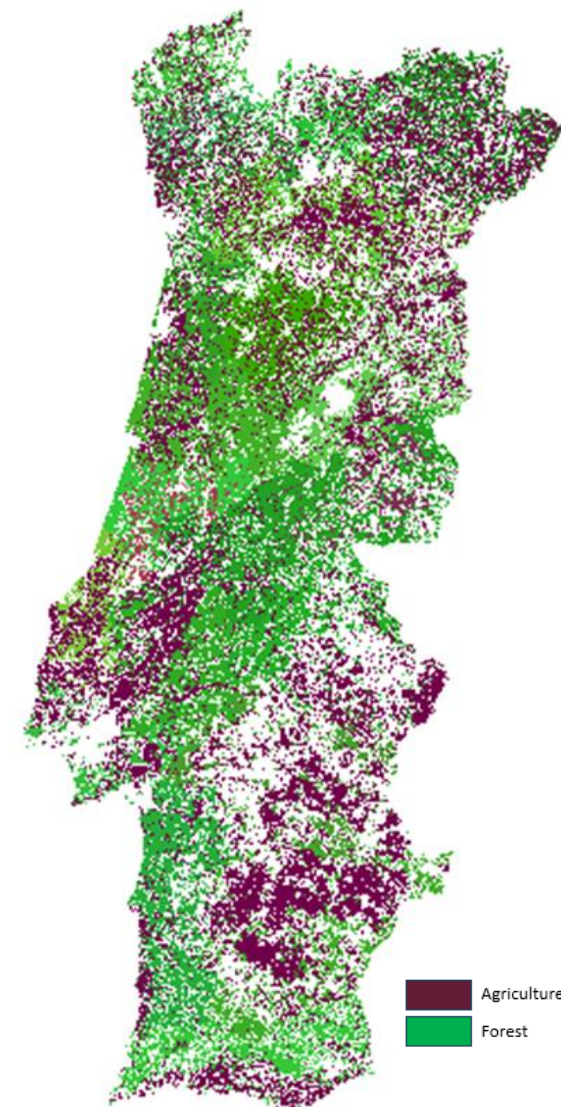
In the realm of agricultural activities, constituting 68% of the Agroforestry complex, noteworthy sectors encompass the cultivation of vegetables, fruits, and vineyards, jointly constituting nearly two-thirds of the production in terms of value (€). Olives and flowers and ornamental plants are also relevant.



Agriculture and Forestries Gross Added Value (10⁶€), in 2019
(Source: GPP, 2020)



Crop production value (10⁶€), by type of crop, in 2021
(Source: INE, 2023)

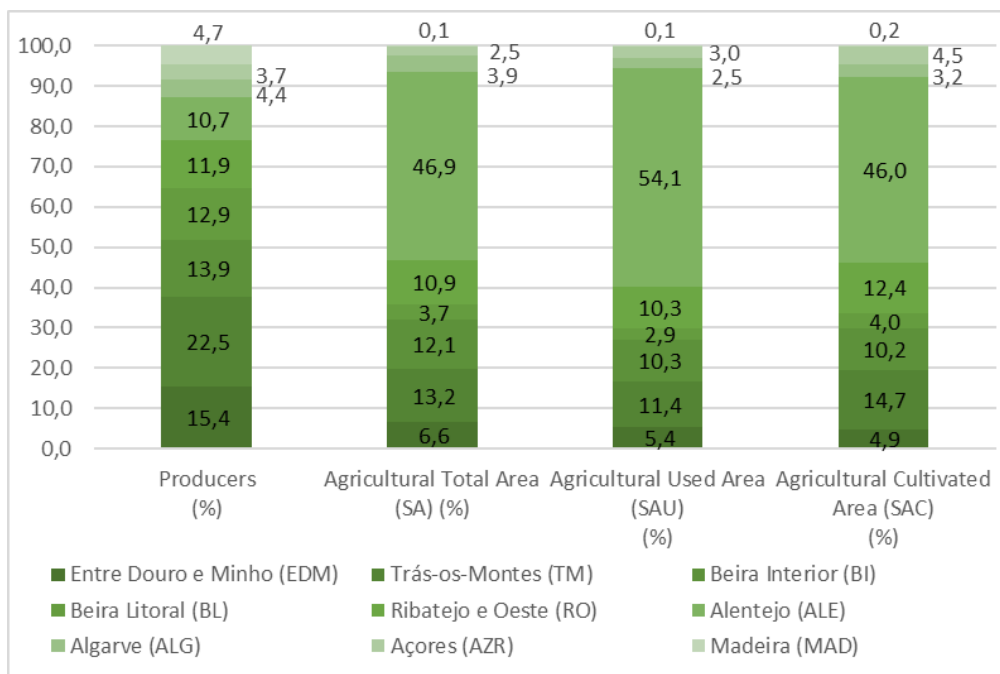


Agriculture and Forest area, by type of crop, in 2019
(Source: COS, 2018)

1. Overview

In 2019, the Portuguese agricultural sector showed the following characteristics:

Producers (nr.) 290 229	Total Area (ha) 5 121 413
Used Area (ha) 3 963 945	Cultivated Area (ha) 2 499 411



Proportion, by agricultural region, of producers number, total area, agricultural used area and agricultural cultivated area (Source: INE, 2023)

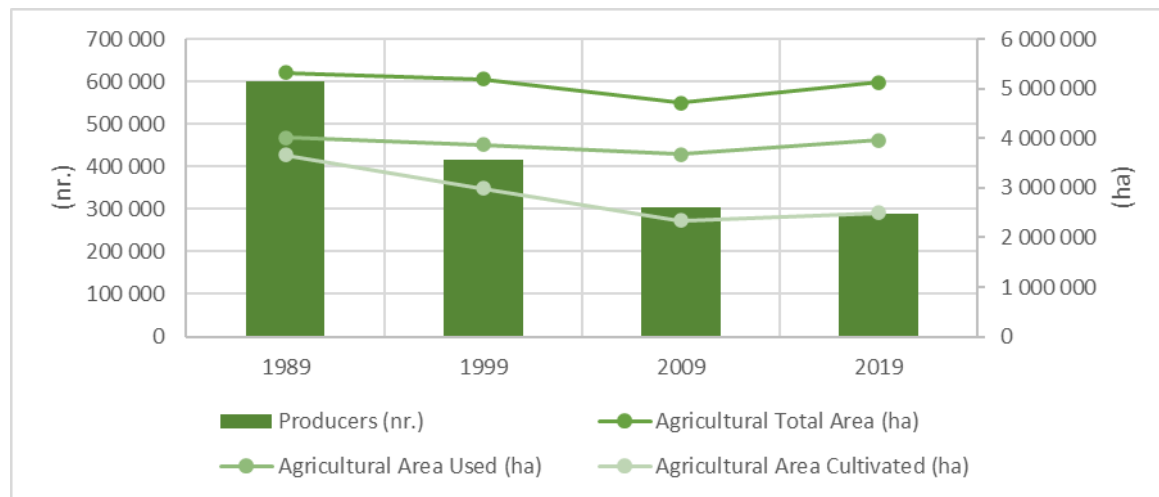


Map of Portugal Agricultural Regions

1. Overview

Between 1989 and 2019, the number of producers has seen a considerable decline, decreasing to less than half in three decades.

Regarding the surfaces, cultivated area underwent the most significant decrease, by approximately one-third, while the others have remained relatively stable. This was mostly due to a significant increase in the area of rough permanent pastures, which replaced to a large extent temporary crops and fallow land.



*Historical evolution of producers number, total area, agricultural area used and agricultural area cultivated
(Source: INE, 2023)*

In terms of the number of producers, there were decreases in all regions. Entre Douro e Minho, Beira Litoral, and Ribatejo e Oeste experienced the most significant declines, with reductions of over 60% in their numbers over these three decades.

Concerning different agricultural surfaces, there were overall increases in the total area in the Trás-os-Montes and Alentejo regions. However, regarding the utilized agricultural area, there were only increases in Alentejo, and there were no gains in the cultivated area.

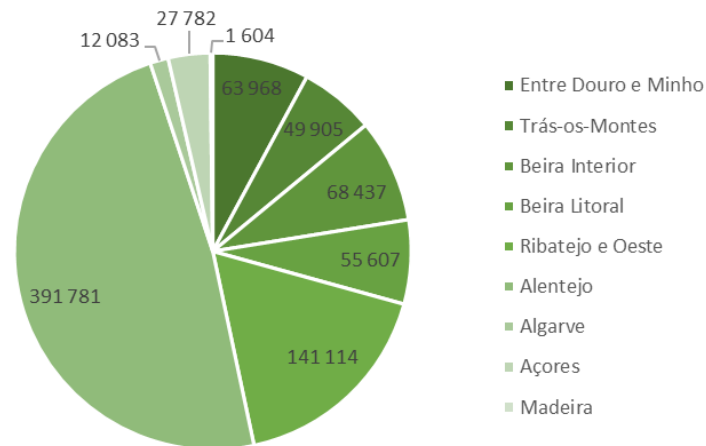
Moreover, with respect to agricultural surfaces, the most substantial reductions occurred in Entre Douro e Minho, Beira Litoral, and Algarve, with declines ranging between 25% and 50%.

1. Overview

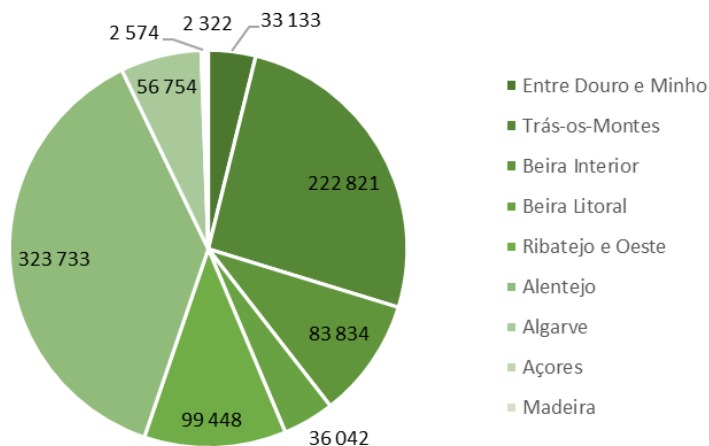
Concerning cultural land use, out of the approximately 4 million hectares of utilized agricultural surface in 2019, around 812,000 hectares were allocated to temporary crops.

Out of this area, nearly 50% was located in the Alentejo region, 17% in Ribatejo e Oeste, and the remaining regions had smaller areas, ranging from 6% to 8,5%, specifically in the regions of Entre Douro e Minho, Trás-os-Montes, Beira Interior, and Beira Litoral.

This area has experienced a significant decline over the years, notably a reduction of approximately 700.000 hectares in the last 30 years.



Annual crops area, in 2019, by agricultural region (Source: INE, 2023)



Permanent crops area, in 2019, by agricultural region (Source: INE, 2023)

Permanent crops comprised approximately 860,000 hectares in 2019. Despite having decreased between 1989 and 2009, these crops have shown a remarkable increase in recent years, currently surpassing the levels of 1989.

In this category of land use, Alentejo continues to be the most significant and fastest-growing region, with over 37% of the current area. However, Trás-os-Montes plays a crucial role, representing 26%.

Two other regions of noteworthy importance are Ribatejo e Oeste and Beira Interior, both strengthening their influence in this agricultural sector.

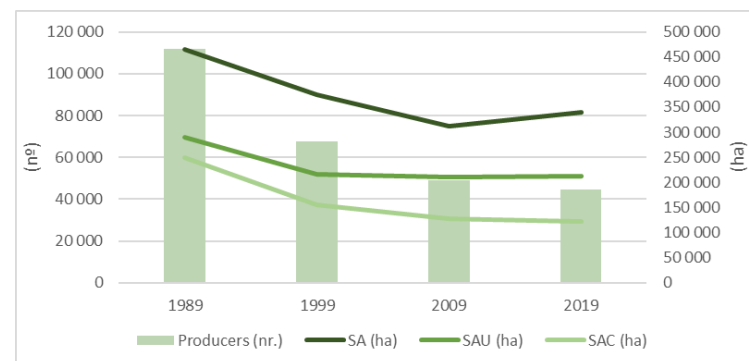
1.1 Overview – Entre Douro e Minho

The agrarian region of Entre Douro e Minho (EDM) has witnessed a significant reduction in the number of producers (-60%), dwindling to less than half in recent decades. Nevertheless, there has been a less pronounced decrease in terms of agricultural surface.

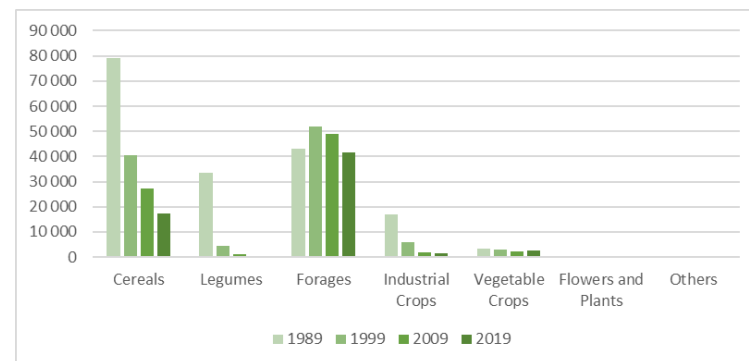
Despite experiencing a more significant reduction in the first half of the period, both the Utilized Agricultural Area (SAU) and the Cultivated Agricultural Surface (SAC) have remained relatively stable since. SAC, however, has seen a consistent annual decrease, marking the highest reduction at -50%.

Concerning land use, Entre Douro e Minho is presently a region that produces Winegrapes and Dairy livestock. Cereals, once the most important group of crops, have seen a considerable decline, currently using about 17 thousand hectares. Legumes and industrial crops once had a more significant impact on the region, but like cereals, their presence has diminished.

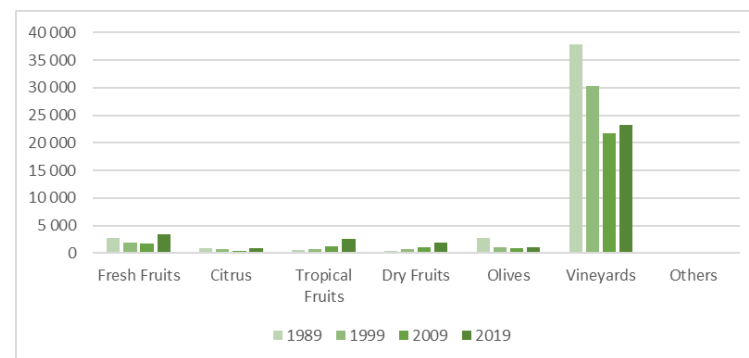
In terms of Horticulture, encompassing Vegetables, Fresh Fruits, and Flowers and Ornamental Plants, it can be concluded that this region holds some significance. Over the period in question, both Fresh Fruits and Flowers and Ornamental Plants have strengthened their importance, currently covering 3,404 ha and 345 ha, respectively. Vegetables, on the other hand, have reduced their area by 18%, now occupying 2,606 ha.



Entre Douro e Minho indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Entre Douro e Minho annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Entre Douro e Minho permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

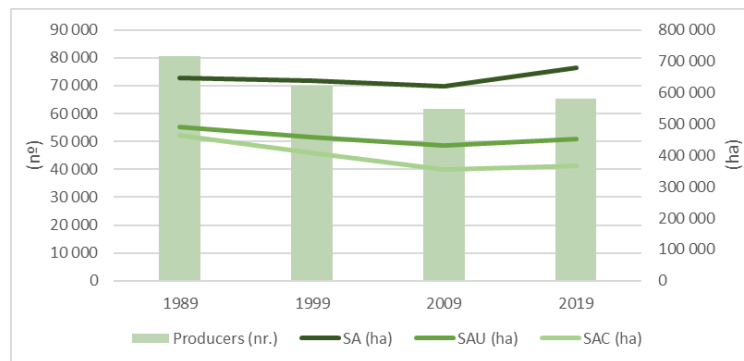
1.2 Overview – Trás-os-Montes

In Trás-os-Montes, despite having fewer producers than the Entre Douro e Minho at the beginning of the 1989-2019 period, there are currently more producers due to a smaller reduction. In the last decade, the total agricultural surface (SA) increased to the highest value of the period.

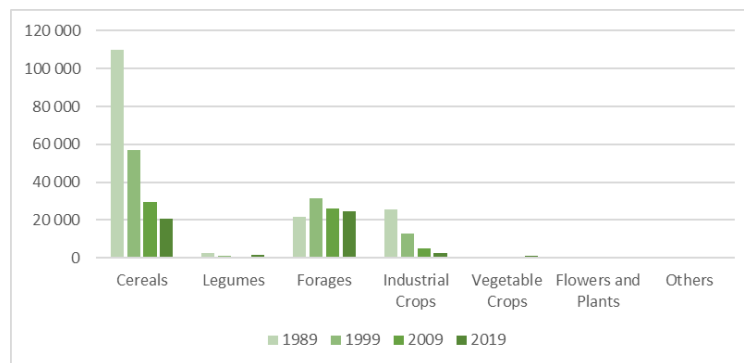
Regarding Utilized Agricultural Surface (SAU) and Cultivated Agricultural Surface (SAC), despite the rise in Total Agricultural Surface, both experienced a reduction during the period, especially in SAC, with a slight recovery in the last decade.

Concerning the cultural occupation of this region, it is an area where primarily permanent crops are produced, including Nuts, Olive groves, and Vineyards. In the past, cereals were the most important crop, but over these three decades, they lost more than 80% of their production area. On the other hand, Nuts production, specifically chestnuts, and Olive groves have been growing considerably.

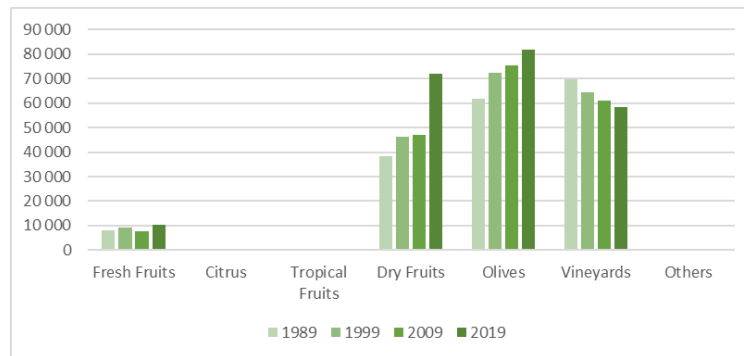
On Horticulture, the region has historically held little significance, with some areas dedicated to Fresh Fruits in traditional production systems and almost no presence of Vegetables, Flowers, and Ornamental Plants. Over the period, both Vegetables (859 ha) and Fresh Fruits (10,411 ha) have expanded their areas, while Flowers and Ornamental Plants have decreased since 1999 (23 ha).



Trás-os-Montes indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Trás-os-Montes annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Trás-os-Montes permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

1.3 Overview – Beira Interior

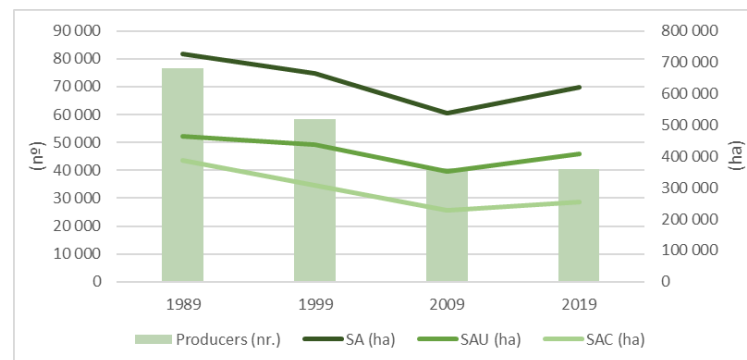
In Beira Interior, much like in the preceding regions, there has been a declining trend in the number of producers, experiencing a reduction of nearly 50%, dropping from 76,5 thousand producers to 40 thousand in 30 years.

Concerning the various surfaces, as depicted in the chart, all of them underwent a decline in the first two decades, followed by a modest recovery. The most substantial reduction occurred in the Cultivated Agricultural Surface.

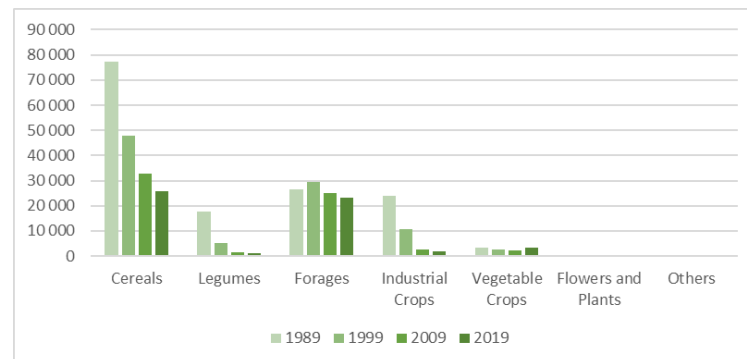
Historically, this agrarian region has demonstrated a significant aptitude for livestock production and olive cultivation. At the onset of the 1989-2019 period, the primary crops were cereals, olives, vineyards, forages and industrial crops. However, over time, all these crops lost their area, mainly to permanent pastures. Cereals, once again, were the most important crop type, losing more than 2/3 of their area.

In recent years, nuts, particularly almond cultivation, have experienced the most significant growth, a result of investments made through investment funds in the region. Despite a decline in the early years of the period, olive cultivation showed a slight recovery in the last decade.

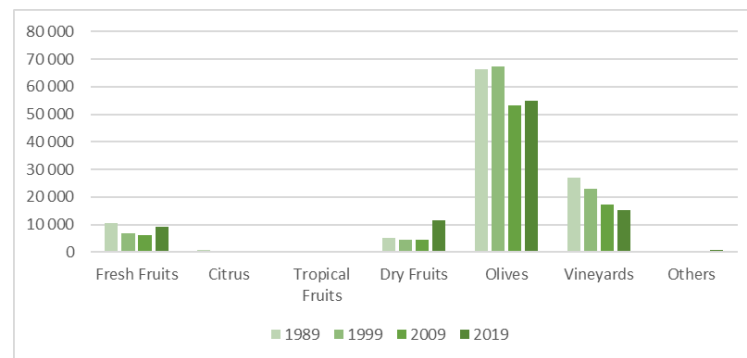
In terms of Horticulture, despite variations at certain points during the period, both Fresh Fruits (9,240 ha) and Vegetables (3,181 ha) have generally maintained their areas, while Flowers and Ornamental Plants have seen an increase (108 ha). This region is renowned for its tradition in cherry production.



Beira Interior indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Beira Interior annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Beira Interior permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

1.4 Overview – Beira Litoral

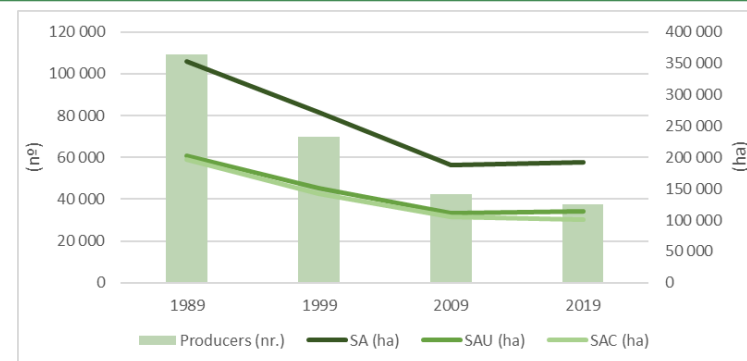
The Beira Litoral was the agrarian region that experienced the most significant reduction both in the number of producers and concerning the various agricultural surfaces.

The number of producers in the last three decades decreased to one-third, dropping from 109,000 to 37,600. Regarding agricultural surfaces, there was a reduction of between 43% and 49% over these three decades, with the most substantial decrease observed in the Cultivated Agricultural Surface (SAC).

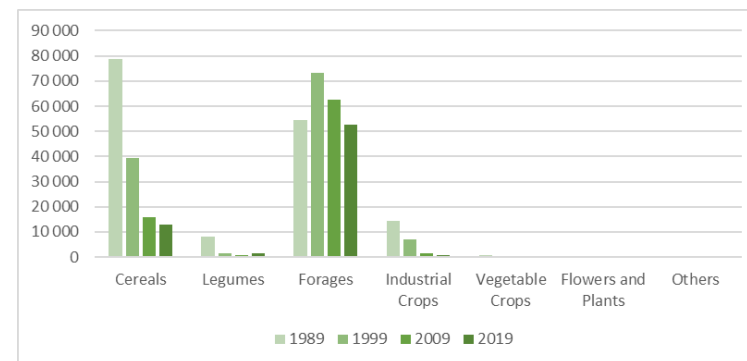
Similar to the regions mentioned earlier, in 1989 cereals were the most important crop, and although they remain one of important, they have decreased by 85%. Forage crops and vineyards followed, with the former remaining stable and the latter significantly decreasing (-62%).

Legumes, Industrial Crops, and Fresh Fruits also held some importance in the past, but they have been reducing their significance.

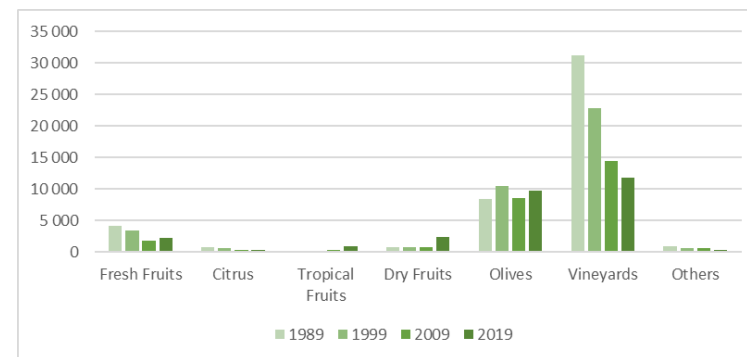
Regarding the Horticulture sector, this is a region with some potential, although its weight has been diminishing. Flowers and Ornamental Plants continue to have little significance (10 ha), while Vegetables and Fresh Fruits have decreased by about half, currently covering 350 ha and 2,239 ha, respectively.



Beira Litoral indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Beira Litoral annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Beira Litoral permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

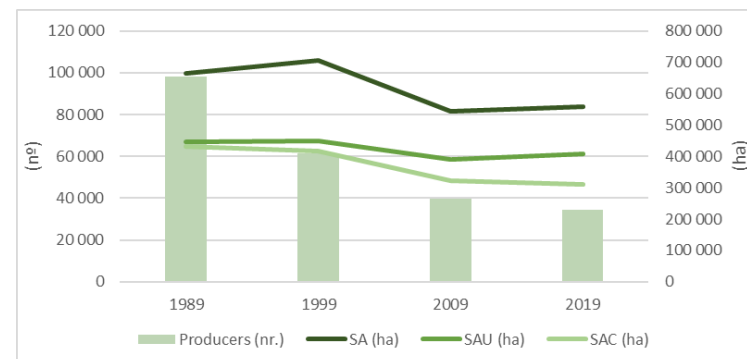
1.5 Overview – Ribatejo e Oeste

In the last decade, Ribatejo e Oeste witnessed a significant reduction in the number of producers, from 100,000 to 35,000.

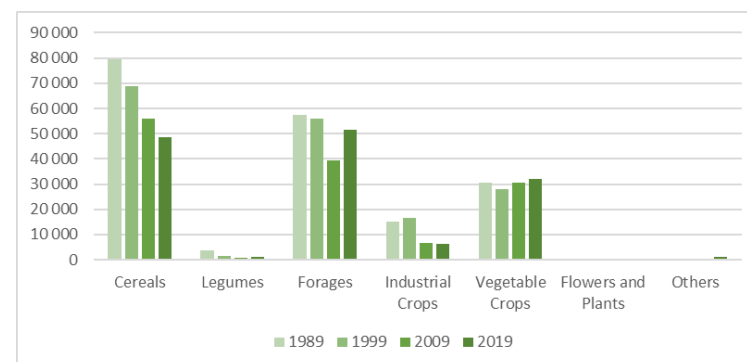
Regarding agricultural surfaces, these presented a different trend compared to other regions. There was a slight increase in the first decade of the period, followed by a reduction in the second, and a recovery in the last decade. The Cultivated Agricultural Surface was an exception, experiencing a reduction throughout the entire period.

Concerning cultural occupation, cereals, forage crops, vegetables, vineyards, olive groves, nuts, and fresh fruits are the most significant crops. Notably, cereals, despite a reduction, experienced a milder decline compared to other regions. There is also a noteworthy decrease in permanent crops, particularly in Fresh Fruits, Olive groves, and Vineyards, and an increase in Nuts, which saw substantial growth in the last decade due to foreign investment.

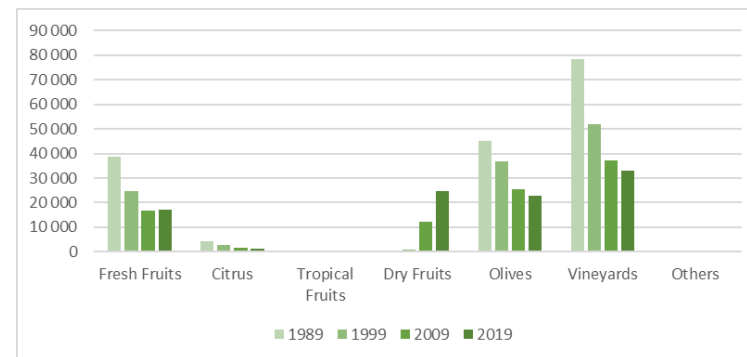
In terms of Horticulture, it is the most important region in Portugal for the production of Vegetables (31,873 ha) and Fresh Fruits (17,042 ha) and the second in the production of Flowers and Ornamental Plants (502 ha). Both Vegetables and Flowers and Ornamental Plants have been growing.



Ribatejo e Oeste indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Ribatejo e Oeste annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Ribatejo e Oeste permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

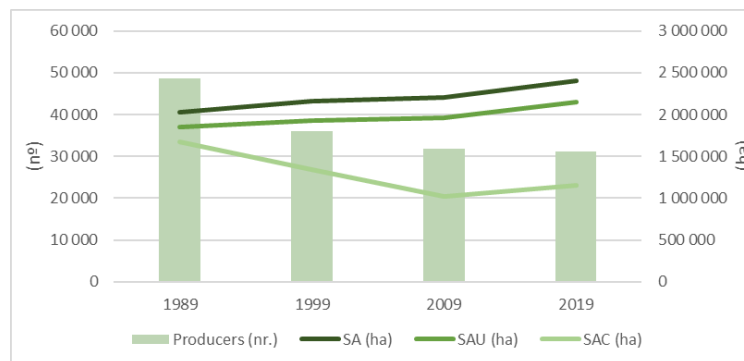
1.6 Overview – Alentejo

The Alentejo is the largest agricultural region in the country in terms of area. Currently, it has over 30,000 producers, undergoing only a one-third reduction in the last three decades compared to the regions mentioned earlier.

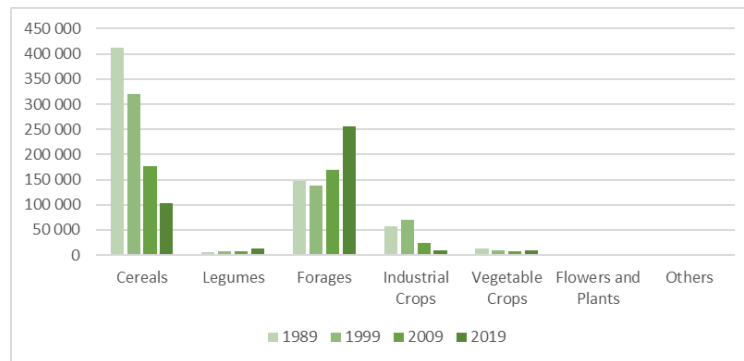
The Total Agricultural Surface (SA) and Utilized Agricultural Surface (SAU) have been steadily increasing by 15 to 20%. However, the Cultivated Agricultural Surface (SAC) experienced a reduction in the first two decades due to the region's inclination towards livestock production and the consequent expansion of areas dedicated to spontaneous permanent pastures.

Concerning cultural occupation, cereals were the most important crop for many years but have been losing ground, especially to forage areas, which increased by 75%, and to Nuts, which expanded from 1,900 hectares to 89,800 hectares, and Olive cultivation, which has seen gradual growth (+33%).

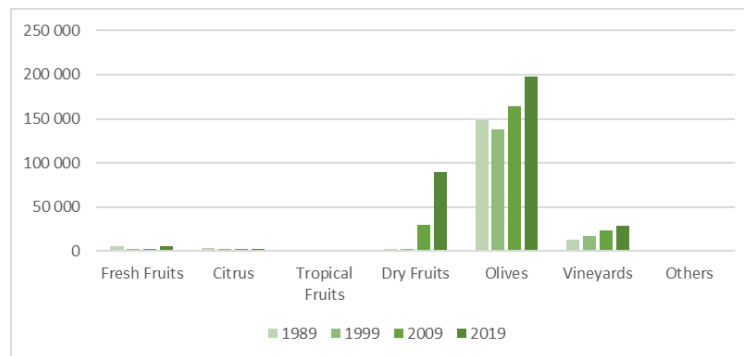
In terms of Horticulture, Flowers and Ornamental Plants, and Fresh Fruits, the region is significant on a national scale. It has the largest area for Flowers and Ornamental Plants (564 ha) and substantial areas for Vegetables and Fresh Fruits (9,553 ha and 5,213 ha, respectively). Notably, the production of Flowers and Ornamental Plants has grown 100-fold in the last 30 years.



Alentejo indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Alentejo annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Alentejo permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

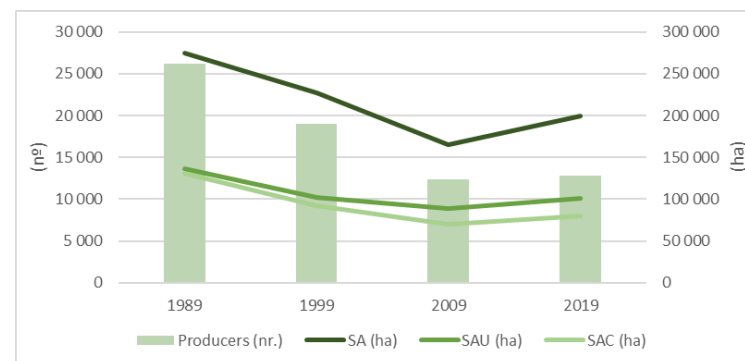
1.7 Overview – Algarve

The Algarve is a relatively small agricultural region that has reduced the number of producers to less than half in the last three decades, and in which the agricultural surface has been decreasing.

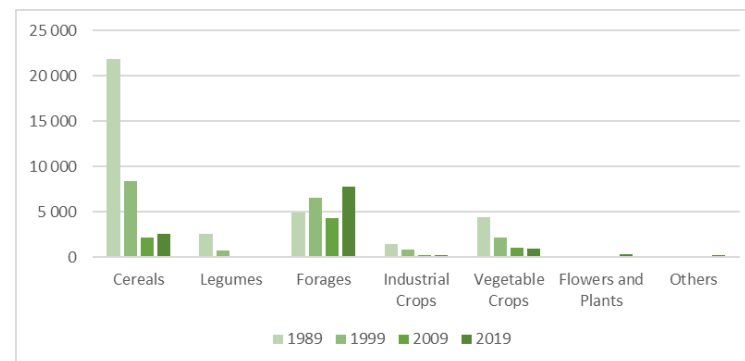
Currently, it is a region known for the production of nuts (almond and carob), citrus fruits, and some areas dedicated to other nuts, olive cultivation, and vineyards. Cereals, once highly significant, have virtually disappeared.

Notably, tropical fruits, particularly avocados, have seen considerable growth.

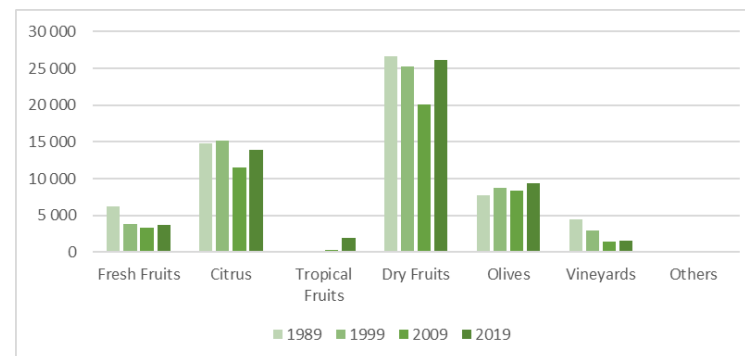
In terms of Horticulture, Fresh Fruits stand out, maintaining some importance (3,744 ha) despite a 40% reduction in their area over the period. Vegetables have seen a gradual decline, now occupying 20% of their area of 30 years ago, being currently of 908 ha. Flowers and Ornamental Plants, on the other hand, have been strengthening year after year, currently covering 276 ha.



Algarve indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Algarve annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Algarve permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

1.8 Overview – Açores

The Azores archipelago is a Portuguese small, 9-island region, renowned for livestock production, particularly dairy, and in some islands for cattle and wine.

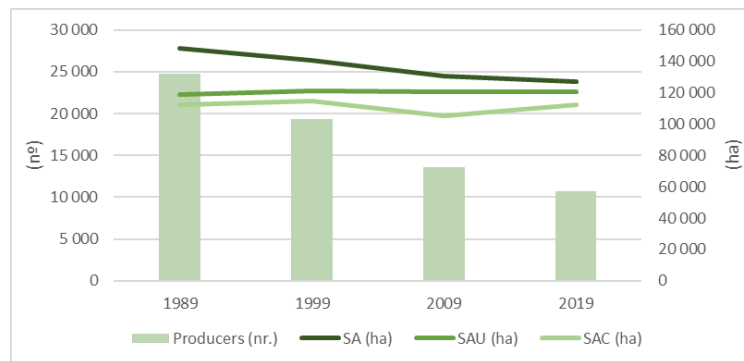
Similar to other regions, the number of producers has decreased to less than half in the last 30 years. However, there is a slight difference in that the Utilized Agricultural Surface (SAU) and Cultivated Agricultural Surface (SAC) have experienced a very slight increase.

The agricultural sector in the Azores is marked by the overwhelming predominance of milk and cattle sectors. In 2019 the Azores had 18% of the national bovine livestock and 33% of the national dairy stock, accounting for around a third of the national milk production. Permanent pastures (90.000 ha) and temporary pastures and arable crops (27.000 ha), accounted for 97% of the Region's SAU in 2019.

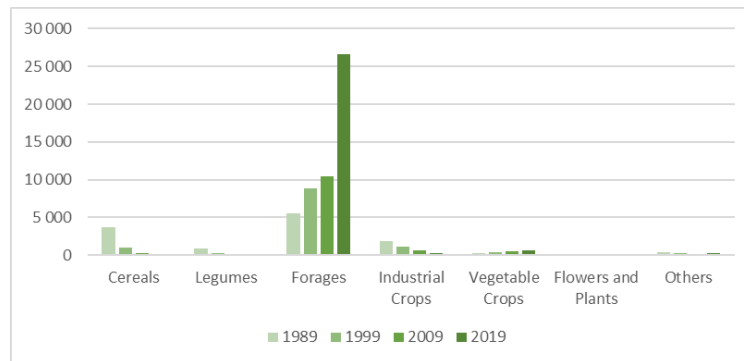
Concerning cultural occupation, forage crops stand out, currently covering almost 1/4 of the SAC.

Despite a decrease in importance, vineyards and tropical fruits (pineapples, bananas) continue to have some significance.

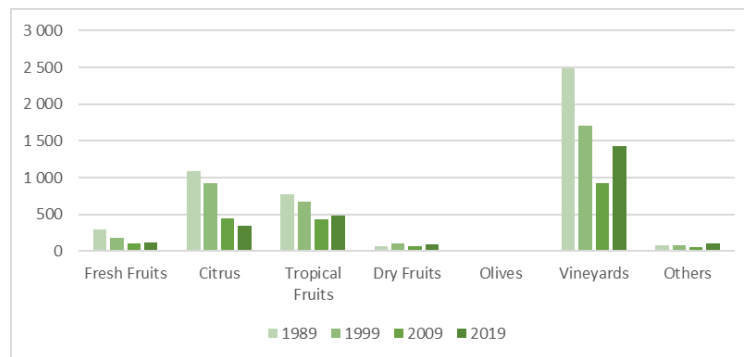
Regarding Horticulture, both Fresh Fruits and Flowers and Ornamental Plants have reduced areas (116 and 49 ha, respectively) and are in decline, while Vegetables have been increasing, currently covering 600 ha.



Açores indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Açores annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Açores permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)

1.9 Overview – Madeira

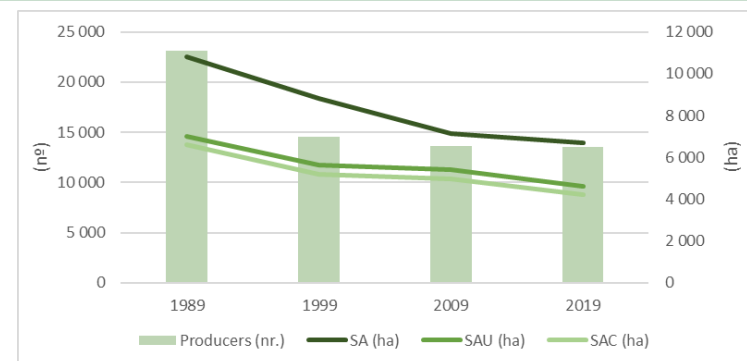
The Madeira archipelago represents the smallest agricultural region of Portugal, with only 4,236 hectares under cultivation.

The agricultural sector in Madeira is characterised by the very small size of holdings (around 0,4 ha) and high average slopes, which make only a small proportion of the territory suitable for farming.

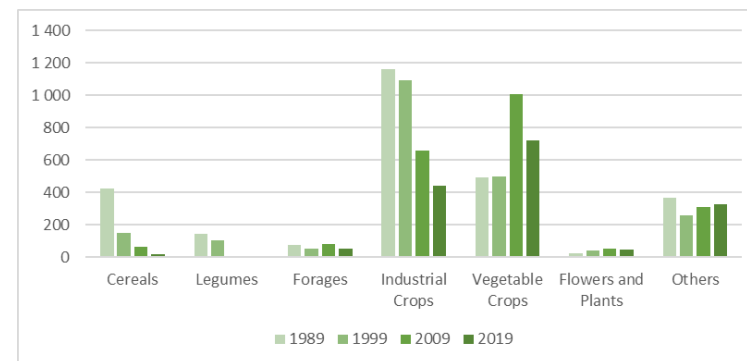
Despite its modest size, the reductions observed in the number of producers and agricultural surfaces were similar.

Currently, the most crucial crop is bananas, followed by vegetables, vineyards, and industrial crops. The latter two have experienced significant reductions in area.

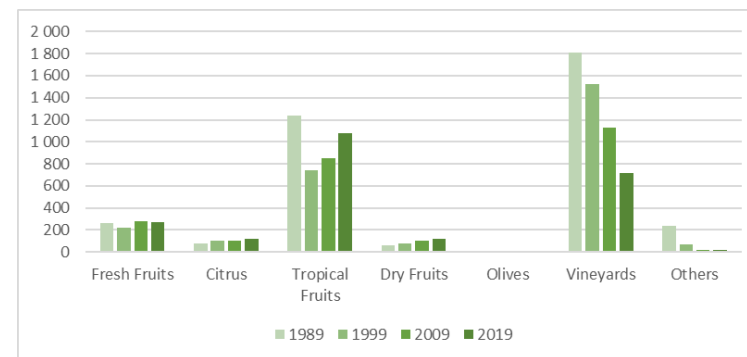
In terms of Horticulture, the areas for Fresh Fruits (267 ha) and Flowers and Ornamental Plants (45 ha) have remained relatively constant, without significant importance. However, the area for Vegetables (722 ha) has increased over the last 30 years, although it was already higher in 2009.



Madeira indicators evolution, from 1989 to 2019 (Source: INE, 2023)



Madeira annual crops area (ha), from 1989 to 2019 (Source: INE, 2023)



Madeira permanent crops area (ha), from 1989 to 2019 (Source: INE, 2023)



2. SOIL, WATER AND LAND USE RESTRICTIONS

2. Soil, Water and Land Use Restrictions

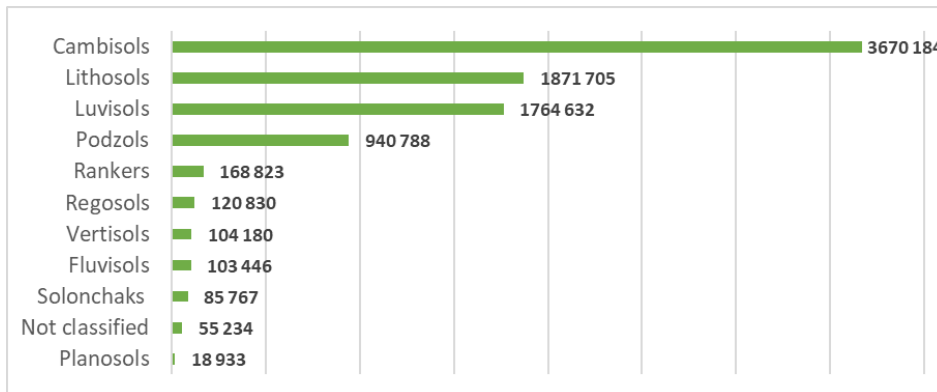
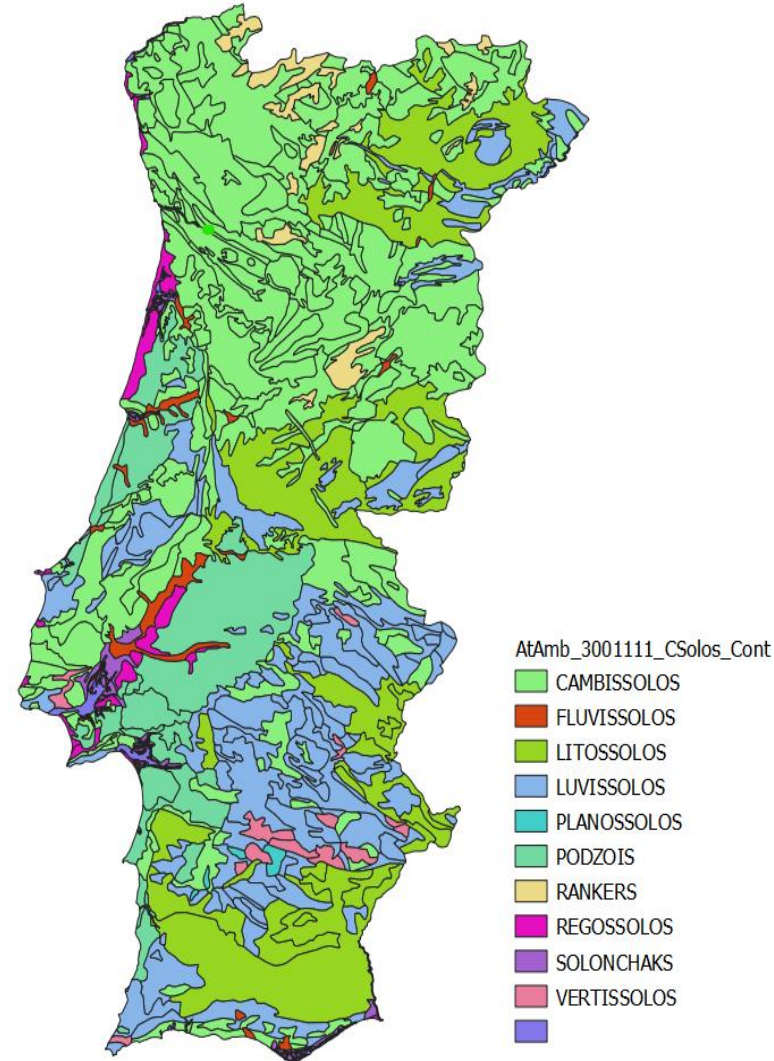
General description of Portuguese soils

The Portuguese continental territory is characterized by a wide distribution of soil types that are the result of different original rock materials and different climate, namely rainfall and temperature, profiles.

The three most common soil types, according to the FAO classification system shown in the chart and graph, represent around 82% of the total area. These three soil types are very different from each other, ranging in fertility and adequacy for horticultural production.

While Luvisols (19,8%) are promising, Lithosols (21,0%) are typically too shallow and Cambisols (41,2%) have some potential, but land in between the two former categories. Podzols (10,6%) are very low on fertility and water retention, but may be used successfully for specific crops.

The choice of crop and production technology will be determinant in the potential economic return from each of these soil categories. This choice is, of course, determined by soil conditions in tandem with other factors, like climate, logistics and market.



Area of the main soil type (ha) (Source: APA, 2023)

Soil type distribution (Source: APA, 2023)

2. Soil, Water and Land Use Restrictions

General description of Portuguese soils

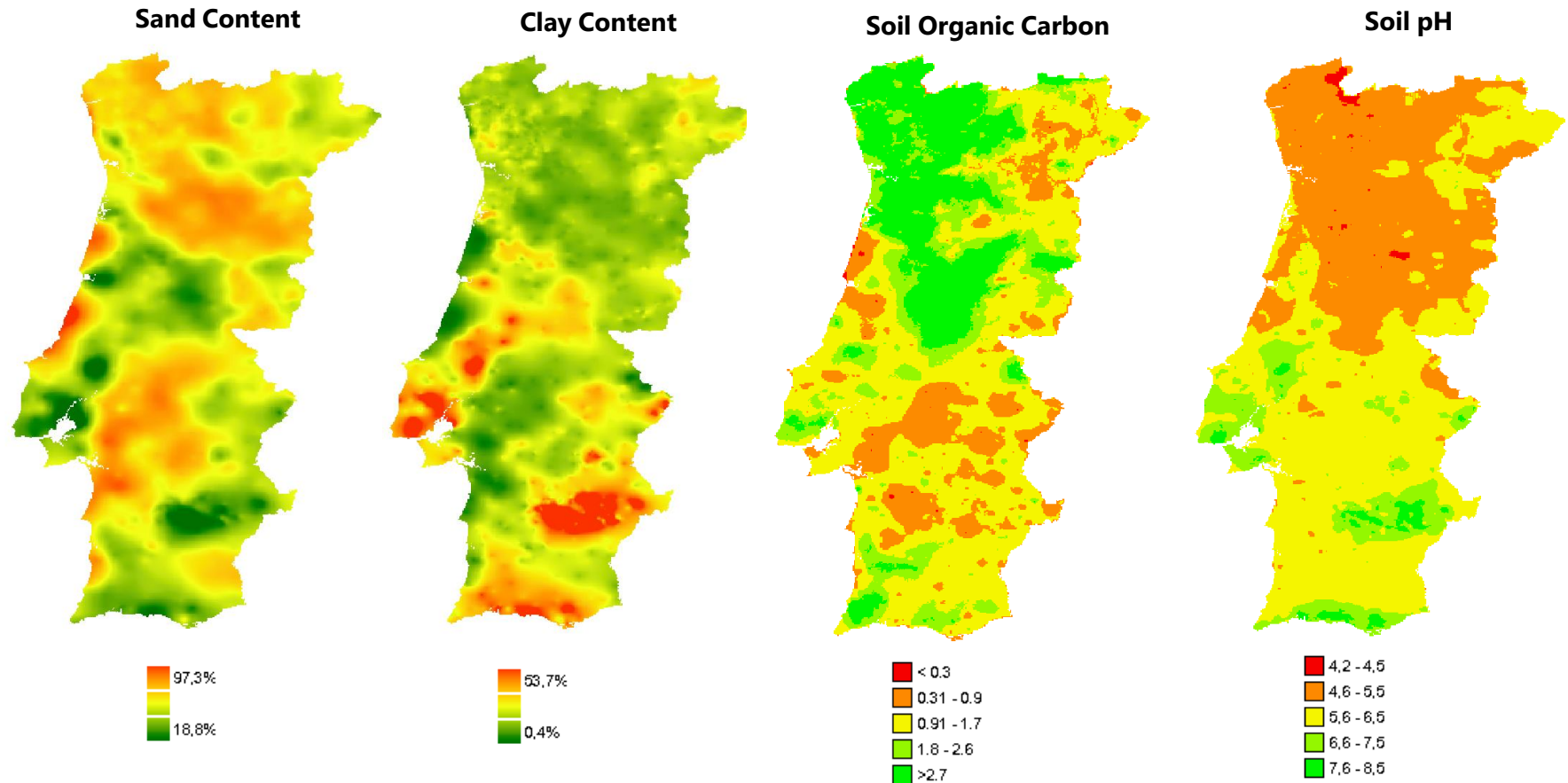
The soil type categories shown previously are further described in the following table.

Soil Classification	General Description
Cambisols	Cambisols are soils with a weakly developed subsurface horizon that shows signs of alteration by weathering or biological activity. They are common in humid and subhumid regions, and occur on a wide range of parent materials and landforms. They have a high potential for agriculture and forestry, but may require fertilization and erosion control. The depth of cambisols varies depending on the parent material and the degree of weathering, but they are usually deeper than 50 cm. The pH of cambisols ranges from slightly acidic to slightly alkaline, depending on the parent material and the leaching process.
Fluvisols	Fluvisols are soils that are periodically or permanently flooded by river water. They are found along rivers, lakes and coasts, and cover about 12% of the ice-free land surface. They have a variable texture and structure, depending on the sedimentation processes. They are often fertile and suitable for irrigation, but may have problems of salinity, waterlogging and pollution. The depth of fluvisols is determined by the thickness of the alluvial deposits, which can be very deep (>2 m) or very shallow (<20 cm). The pH of fluvisols is influenced by the quality of the river water and the drainage conditions, and can range from very acidic (<4.5) to very alkaline (>8.5).
Lithosols	Lithosols are soils that are very shallow and stony, with less than 10 cm of fine earth over hard rock. They are found in mountainous areas, on steep slopes and rocky outcrops. They have a low water-holding capacity and organic matter content, and are unsuitable for cultivation. They may support some vegetation, such as grasses, shrubs and trees. The depth of lithosols is limited by the presence of hard rock close to the surface, which prevents root penetration and soil development. The pH of lithosols depends on the nature of the rock, but they are usually acidic to neutral (5.5-7.2). https://www.fao.org/3/a0541e/a0541e.pdf
Luvisols	Luvisols are soils with a clay-enriched subsurface horizon that shows evidence of clay translocation from the upper layers. They are formed under moderate to high rainfall regimes, in temperate or tropical regions. They occur on old and stable land surfaces, such as plateaus and plains. They have a medium to high fertility and a good physical structure, but may need liming and drainage. The depth of luvisols is related to the intensity of clay translocation and the thickness of the parent material, but they are generally deeper than 50 cm. The pH of luvisols is usually acidic to slightly alkaline (5.5-8.5), depending on the parent material and the degree of leaching.
Planosols	Planosols are soils with a dense subsurface horizon that impedes water infiltration and root penetration. They are formed under seasonal wetting and drying conditions, in flat or gently sloping areas. They have a coarse-textured surface layer over a fine-textured subsurface layer, creating a contrast in soil properties. They have a low to medium fertility and a poor drainage, and may require deep ploughing and irrigation. They are mainly used for pasture and rainfed crops. The depth of planosols is determined by the thickness of the surface layer, which can vary from 10 to 50 cm. The pH of planosols is usually neutral to slightly alkaline (7.2-8.5), due to the presence of carbonates in the subsurface layer.
Podzols	Podzols are soils with a bleached subsurface horizon that is depleted of organic matter and clay, and enriched with iron and aluminium oxides. They are formed under acidic conditions, in cool and humid regions, with coniferous or heath vegetation. They occur on sandy parent materials, such as glacial deposits or coastal dunes. They have a low fertility and a high acidity, and may need liming and fertilization. They are mostly used for forestry and recreation, despite some uses under irrigation being implemented as of late, with good results. The depth of podzols is influenced by the rate of podzolization and the depth of the sandy parent material, but they are usually deeper than 50 cm. The pH of podzols is very low, due to the leaching of bases and the accumulation of organic acids in the upper horizons.
Rankers	Rankers are soils that are shallow and stony, with less than 30 cm of fine earth over hard rock or gravel. They are similar to lithosols, but have more organic matter and biological activity. They are found in mountainous areas, on steep slopes and rocky outcrops. They have a low water-holding capacity and nutrient availability, and are unsuitable for cultivation. They may support some vegetation, such as grasses, shrubs and trees. The depth of rankers is limited by the presence of hard rock or gravel close to the surface, which prevents root penetration and soil development.
Regosols	Regosols are soils with a weakly developed or absent subsurface horizon that shows little or no signs of soil formation. They are young or recently disturbed soils, found in arid or semi-arid regions, or in areas of erosion or deposition. They have a variable texture and structure, depending on the parent material and the environmental factors. They have a low to medium fertility and organic matter content, and may need irrigation and fertilization. They are used for grazing or dryland farming. The depth of regosols is related to the age and stability of the soil, but they are usually shallow to moderately deep (10-100 cm). The pH of regosols is influenced by the parent material and the climatic conditions, and can range from very acidic to very alkaline.
Solonchaks	Solonchaks are a type of soil that have high salinity and no distinct subsurface layers, except for some possible horizons of organic matter, calcium carbonate, gypsum, or sulfuric acid. They are found in arid to subhumid regions, where the evaporation exceeds the precipitation, and the groundwater is saline. Solonchaks are usually pale or grey in colour, and have a coarse texture and a loose structure. They are unsuitable for most crops, unless they are irrigated with fresh water and leached of salts, save for specific salt-resistant crops, such as rice. The average depth and pH of solonchaks depend on the thickness of the saline deposits and the quality of the groundwater, but they are generally shallow to moderately deep (10-100 cm).
Vertisols	Vertisols are soils with a high content of swelling clay minerals that cause them to shrink when dry and swell when wet. They are formed under seasonal moisture regimes, in tropical or subtropical regions. They occur on level or gently sloping areas, with clay-rich parent materials such as basalt or shale. They have a dark color and a high fertility, but also a high salinity and sodicity risk. They pose problems of cracking, waterlogging and tillage difficulty, but can be productive if well managed. The depth of vertisols is determined by the thickness of the clay-rich parent material, which can be very deep (>2 m) or very shallow (<20 cm). The pH of vertisols is usually neutral to slightly alkaline (7.2-8.5), due to the presence of carbonates in the clay minerals.

2. Soil, Water and Land Use Restrictions

General description of Portuguese soils

Some of the most relevant soil characteristics are distributed in the fashion shown in the following maps.



Source: Instituto Nacional de Investigação Agrária e Veterinária, I.P. (INIAV,I.P.), 2023

2. Soil, Water and Land Use Restrictions

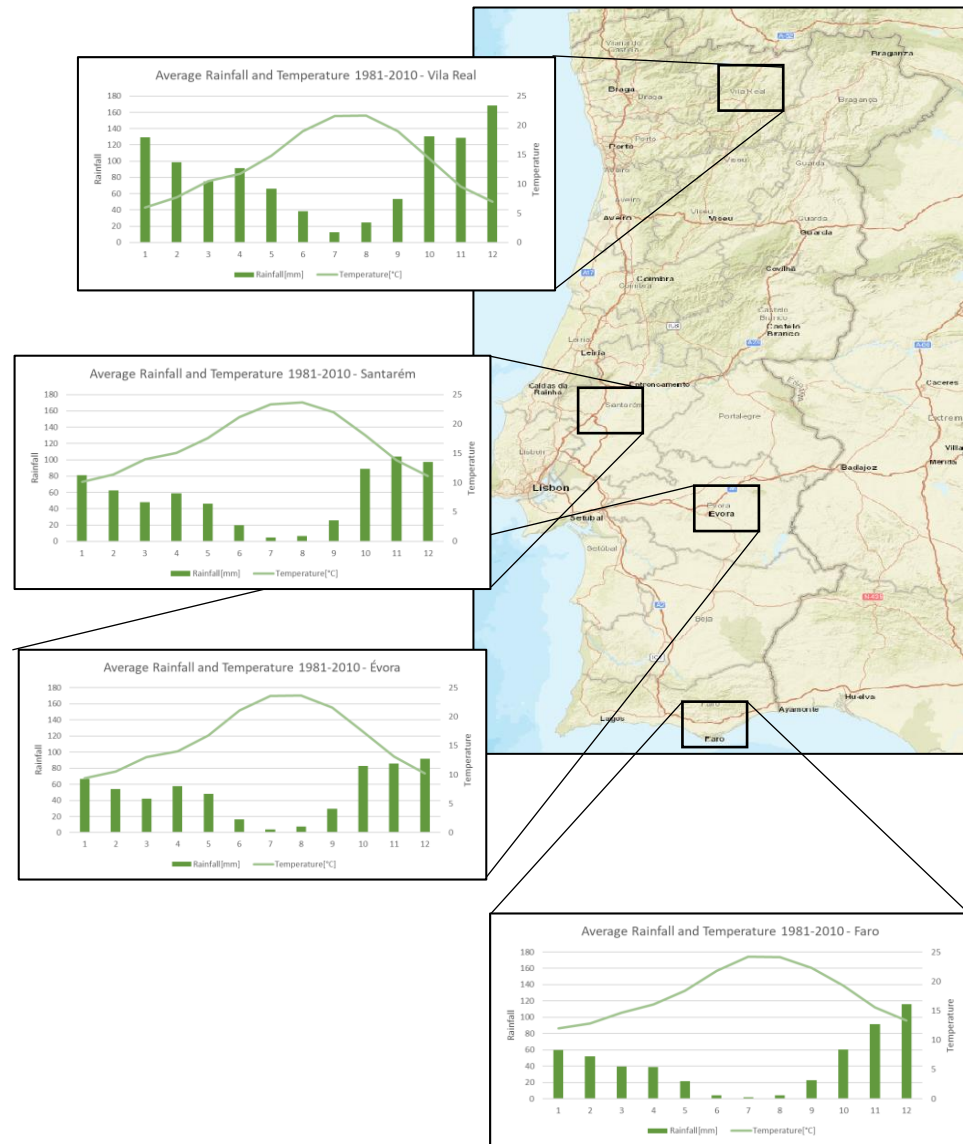
Water Availability and Irrigation

Similarly to the soil distribution, the continental territory of Portugal is also quite heterogenous in terms of rainfall, which limits water availability across the country.

As the following image shows, the annual rainfall follows a similar pattern in the entire country. This is visible in the concentration of rain in the winter and autumn months. However, the intensity of rainfall is clearly different. The following table better illustrates this difference:

Average Yearly Rainfall (mm) 1981-2010	
Vila Real	1018
Santarém	643,1
Évora	585,3
Faro	511,6

As one can see, the low rainfall in the spring and summer months, as well as the decreasing annual amount from North to South, generate very disparate irrigation water needs. It can be said that the South and the Interior parts of the territory are in more need of water storage and irrigation for agricultural production, while the North may produce with larger abundance in rainfed systems or store water in easier fashion.



Source: Instituto Português do Mar e da Atmosfera (IPMA), 2023

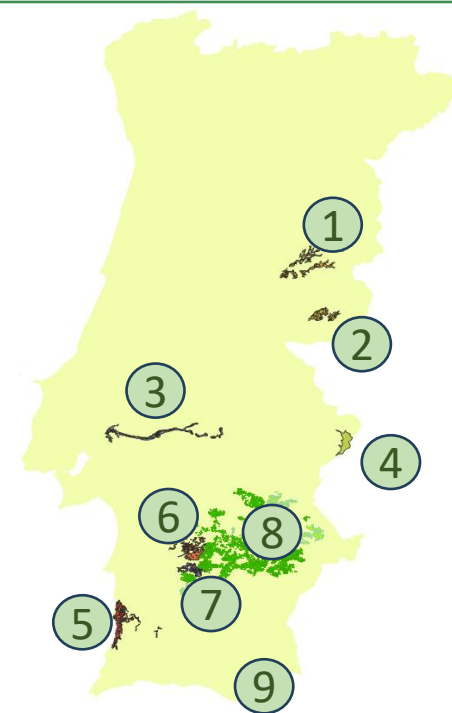
2. Soil, Water and Land Use Restrictions

Water Availability and Irrigation

The described conditions of rainfall distribution across the country and across the year generate the need to store water in the winter to use in irrigation in the warmer months, when higher temperatures promote more vegetative growth. The country has developed, since the 1960's, a large number of irrigation schemes, fed by important dams, that attempt to make up for this need created by the natural conditions.

In this decades-long effort, the country has been able to build 42 public dams dedicated to feed public irrigation schemes.

According to the national authority on irrigation ([DGADR](#)) and the public entity managing the largest irrigation scheme in Portugal ([EDIA](#)), there are a total of 264.884 irrigated hectares, using public or publicly controlled infrastructure. Out of these, there is a group of nine public irrigation systems that, combined, represent a total area of around 211.466 ha of irrigated land. These nine systems are considered to be the most interesting in terms of horticulture and are described in the following table.



Name	DGADR code	Infrastructured area (ha)	Region	Water origin	Water resilience	No. of beneficiaries
1.Cova da Beira	C5	12 500	Centre	4 dams - useful storage capacity 108,4 hm3	1 2 3 4 5	1 078
2.Idanha	C6	8 198	Centre	1 dam - useful storage capacity: 77,3 hm3	1 2 3 4 5	964
3.Sorraia	LVT3	15 816	Lisbon & Tagus Valley	3 dams + 2 weirs - useful storage capacity: 328,3 hm3	1 2 3 4 5	1 722
4.Caia	AL2	7 237	Alentejo	1 dam - useful storage capacity: 192,3 hm3	1 2 3 4 5	887
5.Mira	AL7	12 000	Alentejo	1 dam - useful storage capacity: 240,3 hm3	1 2 3 4 5	4 420
6.Odivelas	AL9	12 343	Alentejo	1 dam - useful storage capacity: 70 hm3*	1 2 3 4 5	338
7.Roxo	AL12	5 041	Alentejo	1 dam - useful storage capacity: 89,5 hm3*	1 2 3 4 5	468
8.EFMA - Alqueva	AL14	130 000	Alentejo	20+ dams - useful storage capacity: 3.204 hm3**	1 2 3 4 5	2 124
9.Sotavento Algarvio	A7	8 331	Algarve	2 dams - useful storage capacity:164,6 hm3	1 2 3 4 5	2 728
Total of sample perimeters		211 466		Useful Storage capacity: 4.474,7 hm3		14 729

* water supply potentially supported by EFMA

** Annual water use allowance of 590 hm3

Source: Data and geographic information provided by the Directorate-General for Agriculture and Rural Development (DGADR), 2023

2. Soil, Water and Land Use Restrictions

Water Use:

All water use in agricultural holdings must be licensed by the Portuguese Environmental Agency ([APA](#)), with the issuance of the corresponding utilization titles.

The water resources are classified as Private or Public according to several conditions (laid out in the Law nº 54/2005):

- Groundwater is attributed ownership depending on the land on which it is located, if the land is private then the waters are private if the land is public then the waters are public;
- Surface waters (rivers, lakes, dams, water lines) are, as a rule, public, except on the land where their source is located, becoming public as soon as they flow into the adjacent land (ex. a dam that is filled with water from a spring located inside the property is considered a private water resource).

Note that even the private water resources are subject to the issuance of an utilization title from APA.

The Portuguese water legislation (Law n.º 58/2005 and Decree-Law nº 226-A/2007) establish 3 types of Utilization Titles for the water resources, whose main characteristics are presented in the following table:

2. Soil, Water and Land Use Restrictions

Water Use:

Title	Authorization	Licence	Concession Contract
Applicable Uses	Applicable to Private water resources use (except the one that require Licencing) – Ex. Boreholes, wells , construction of small dams.	Applicable to the Public water resources use that are associated with the Concession and the following Private water resources uses : • Disposal of wastewater; • Immersion of residues; • Recharge and artificial injection into groundwater; • The extraction of inert; • Landfills and excavations.	Applicable to the following Public water resources uses : • Abstraction of water for public supply; • The abstraction of water to irrigate an area greater than 50 hectares; • Use of areas in the public water domain intended for the construction of tourist developments and similar; • Water abstractions for energy production; • Implementation of hydraulic infrastructures associated with the abovementioned uses.
Validity	No Expiry date	Validity up to 10 years (Expiry date is mentioned in the Title)	Validity up to 75 years (Expiry date is mentioned in the Concession Contract)
Associated Costs	Payment of the Water Tax (TRH)	Payment of the Water Tax (TRH) and a security deposit to ensure the compliance of the obligations set out in the Title.	Payment of the Water Tax (TRH) and a security deposit to ensure the compliance of the obligations set out in the Contract. When public assets and goods are used under the concession the user can also have to pay an annual rent for that use.

The issuance of an Utilization Title and its use is always associated with the obligation to pay an annual Water Tax, which is designated as “Taxa de Recursos Hídricos” (TRH), which is due for the negative impact of the authorized activity on the water resources.

THR is established based on a set of criteria, including the use of water from the Public Water domain (0,0038 €/m³ in 2023), the discharge of wastewater in the hydric resources, the use of waters that are subject to public planning and management, including both the public and private water domains (0,000774 €/m³ in 2023) or the private use of water, whatever its nature or legal regime.

TRH is also charged to the irrigation water supplied from the Public irrigation perimeters. In this case the Managing entity of the perimeter which holds the concession contract with the State, will charge the TRH to each farmer, and then deliver the tax paid by the farmers to APA.

2. Soil, Water and Land Use Restrictions

Water Use - Alqueva:

The Alqueva irrigation perimeter (known as EFMA) is managed by a public company named [EDIA](#).

The issuance of permits for private use of water, for abstraction of water for irrigation and production of electric energy is regulated by the national Water Law. The abstraction of water is subject to the payment of the water resources tax and a fixed tax.

Irrigation authorisations are granted to the holders of land parcels which are either within the irrigation perimeter area or neighbouring it, the latter as precarious areas.

EDIA defines for each land parcel within the perimeter the area which is benefited, the location of the hydrants within the parcel and the maximum water flow (m^3/hour) in those hydrants. The water flows defined for each hydrant depend on the capacity of the infrastructure and are designed for the peak consumption month.

On a regular year, holders of land parcels within the perimeter may use the water flow made available by the existing hydrants in the land parcels, but limited to the maximum allocation per hectare permitted in each perimeter, which varies between 3,000 and 6,500 $\text{m}^3/\text{ha}/\text{year}$. This has been the case every year since EDIA started supplying water, for over ten years. Up until now, the same has also occurred for authorised precarious areas.

However, from 2023 EDIA defined a maximum irrigation volume per beneficiary, based on the multiplication of the authorized area by a reference allocation of water per crop, which is defined by the national Operative Centre for Irrigation Technology (COTR).

Further restrictions may occur if deemed necessary in severely restrictive years.

The price of water for irrigation in Alqueva has a conservation component (which is paid by each hectare that is served by the global irrigation system, independent of the water consumption) and an operating component (which is paid per cubic meter of water used for irrigation). The value of each component depends on if the water is supplied under high or low pressure.

2. Soil, Water and Land Use Restrictions

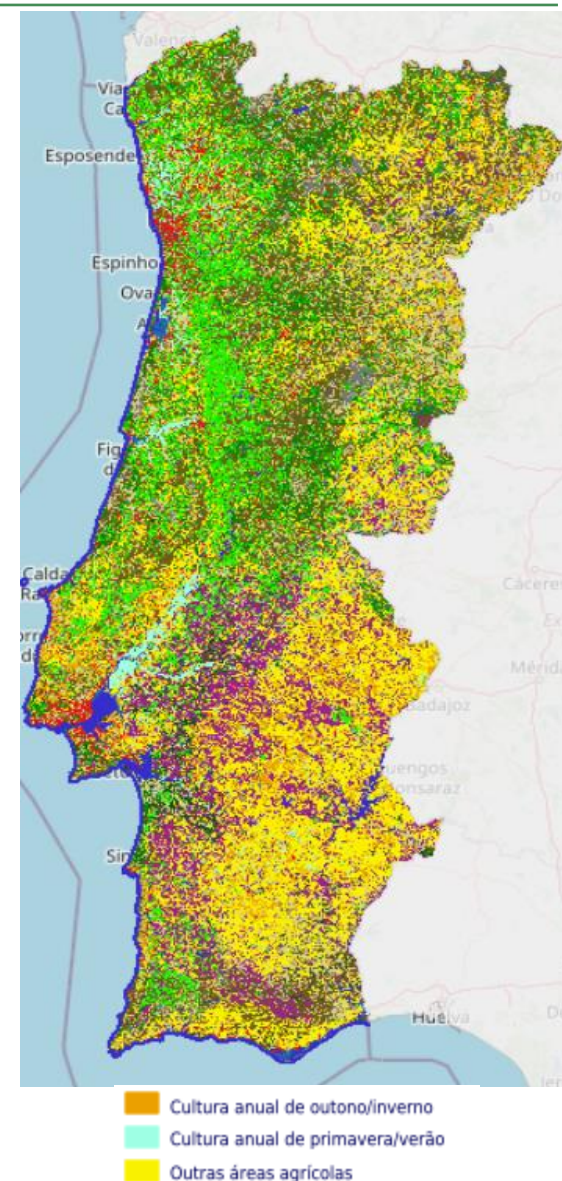
Land Use in Portugal

As can be seen from the soil and water information above, the land use in Portugal is determined by several important factors that render different areas suitable for a different type of crop, forestry or another use.

The following map shows the large array of land use types present across the continental territory in 2022, where only the three categories shown in the legend correspond to agricultural land use.

These land use choices are also influenced heavily by legislation that determines land use restrictions as well as the land planning set forth in each municipality's zoning, which will not be described here since it is specific to each municipality. The main land use legislation to consider is:

- **National Agricultural Reserve (RAN)** - The RAN is a set of publicly owned land dedicated to agricultural production. Its objectives are to ensure food security, promote rural development, and protect the environment. The RAN consists of high-quality soils with great potential. Its management is the responsibility of the General Directorate for Agriculture and Rural Development (DGADR), which develops land-use plans for its use. In summary, the RAN is an important tool for promoting national agriculture, contributing to food security, rural development, and environmental protection;
- **National Ecological Reserve (REN)** - The REN is a set of protected areas designed to ensure the conservation of biodiversity and natural resources. Its objectives are to protect natural habitats, wildlife, and ecosystems. The REN covers a wide variety of habitats, including forests, shrublands, wetlands, and coastal areas. Its management is the responsibility of the Institute for Nature Conservation and Forests (ICNF), which develops management plans for each protected area. In summary, the REN is an important tool for nature conservation, contributing to ecological balance and sustainability in Portugal.

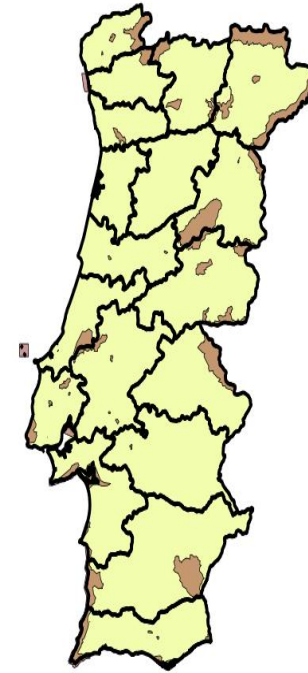


Source: COS 2022, Direção-Geral do Território (DGT)

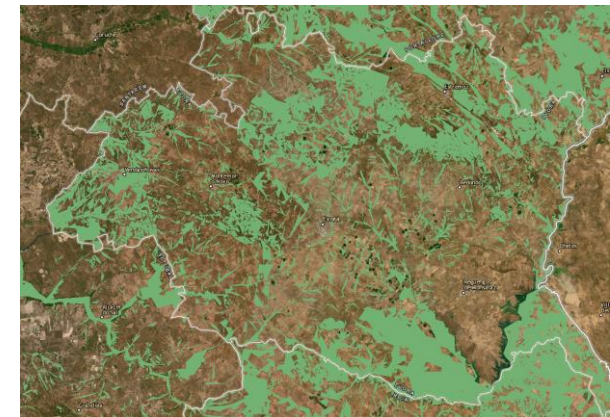
2. Soil, Water and Land Use Restrictions

Land Use in Portugal

- **Natural parks and natural reserve regulations** – The National Network of Protected Areas ([RNAP](#)) includes a large array of Natural Parks and Reserves, and also the National Park of Peneda-Gerês. For each of these areas, there is an additional regulation that plans out the limitations in land use and the conservation measures to the natural resources present in each of these protected areas;
- **Decreto-Lei n.º 151 B/ 2013 the legal framework determining the procedure for the Environmental Impact Assessment** – establishes the legal framework for environmental impact assessment (EIA) of public and private projects. The law transposes the European Union Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive). In general terms, land use changes above a 100 ha or 50 ha threshold, depending on the circumstances, from non-agricultural use to intensive agriculture will require a positive EIA.
- **Decreto-Lei n.º 169/2001 – the legal protection to cork and holm oak** – this law that establishes measures for the protection of cork oak and holm oak trees in Portugal. The law prohibits the cutting or uprooting of these trees without authorization from the government. It also regulates the harvesting of cork from cork oak trees, ensuring that it is done in a sustainable way. The law is designed to protect these important trees, which play a vital role in the Portuguese environment and economy. Cork oak and holm oak trees provide habitat for a variety of wildlife, and they help to protect the soil and water resources. The cork industry is also an important part of the Portuguese economy, and the law helps to ensure that this industry can continue to thrive.



Protected areas under RNAP (Source: Sistema de Informação Geográfica (SNIG))



Area covered by REN in the Évora District (Sources: CCDR Alentejo)

2. Soil, Water and Land Use Restrictions

Other relevant regulations:

- **Environmental Impact Assessment (AIA)** – applies to certain types of projects, depending on their scale, including in the agricultural sector, such as land consolidation projects (>350 ha if including irrigation), new areas of intensive farming where no agricultural has been in place for 5 years (>100 ha), irrigation and drainage (>2000 ha), intensive animal production units (depending on the species);
- **Phytosanitary Register/License** – required for the activity of production, marketing, and import of propagating and planting materials for fruit, vegetable, ornamental and viticultural species;
- **Register of Fruit and Vegetable Operators and Importers** – applies to all natural or legal persons active in the fruit and vegetable sector, except those limited to the transport of goods or retail sales, provided they do not pre-package them, and to all wholesale operators, even if they don't do any packaging/labelling;
- **Responsible Industry System (SIR)** – corresponds to the licensing of industrial units, which establishes the procedures required to access and exercise industrial activity; there are three types of procedures, depending on the type and size of the unit; applies to a number of processing activities, including for freezing, preparation, conservation, drying and dehydration of fruit and vegetables, nuts shelling and processing, wineries, olive oil mills, among others.



3. AGRICULTURE FINANCING AND REGULATORY ISSUES

3. Agriculture Financing and Regulatory Issues

The current chapter covers each of the following items:

1. Agricultural financing and investment support:

- Annual payments to farming;
- Producer Organisation operational programmes;
- Investment support funding available for agricultural investments and agri-industrial investments.

2. Bank financing:

- Identification of the main banks financing agricultural projects in Portugal;
- Identification of the main bank loan features for agricultural investments
- Analysis of the interest rates evolution in the past ten years in Portugal.

3. Other relevant benefits for investment in Portugal:

- Analysis of existing tax benefits and other benefits available to large and foreign investments in Portugal at the moment.

4. Regulatory issues:

- Main investment and operational regulatory affairs.

3.1 Public Support

Introduction - PEPAC:

- PEPAC is the EU Common Agricultural Policy Strategic Plan for Portugal for the 2023-2027 period;
- The Programme is financed by EU funding (EAGF and EAFRD), with a participation from the Portuguese national budget and is managed by a Managing Authority within the Ministry for Agriculture;
- It has an overall budget of 6,7 bn € for the Mainland, the Azores and Madeira and includes direct payments, market measures and rural development measures;
- It provides several types of support to the agricultural, agro-industrial and forestry sectors and to the rural areas, including:
 - Direct payments to producers;
 - Eco-schemes;
 - Agri-Environmental measures;
 - Operational programmes for F&V;
 - Investment support.

3.1 Public Support

Direct payments:

- Basic payment per hectare, based on a scheme of entitlements per company (1 entitlement per ha). Currently entitlements have very different values, but are converging to an equal payment per hectare in 2026, with entitlements being abolished from 2027;
- Coupled support – payment per hectare or LU to cattle, sheep and goats, milk, rice, tomato for industry, protein crops, starchy cereals, maize for grain or silage, multiplication of certified seeds and cotton;
- Payment to less-favoured areas – degressive annual payment per hectare to areas with natural or other area-specific constraints.

Environmental payments:

- Eco-schemes – degressive payments per hectare or LU linked to environmental practices, with annual commitments. Includes support to organic farming and integrated production;
- Agri-environmental measures - degressive payments per hectare or LU linked to environmental practices, with 5-year commitments. Includes support to direct sowing, interrow cover, biodiverse pastures, efficient water use, traditional orchards and landscapes.

3.1 Public Support

Operational programmes for Producer Organisations:

- Support to operational programmes (OP) developed and implemented by recognised Fruit and Vegetables (F&V) Producer Organisations (PO);
- Recognised POs must comply with a minimum of members (7 to 12) and a minimum value of marketed production, depending on the sector;
- No individual, company or group of companies may own more than 49% of the POs equity and voting rights;
- EU financial support to OPs is of 4,1% of the PO's production value (4,6% if the difference is targeted only at risk management support);
- POs support, to a maximum of 50% of the eligible investment, a large number of activities, including:
 - Environmental measures (soil, water, energy and waste management);
 - Agricultural investment;
 - Field trials, advisory, training;
 - Processing, marketing and promotion;
 - Traceability, quality and certification;
 - Risk management.

3.1 Public Support

Support to agricultural investment:

- Support is expected to begin in 2024, granted through measure C.2.1.1 (and C.2.1.2, specifically for environmental-related investments);
- Eligible agricultural investments include all physical, tangible and intangible assets needed for a new or existing farm, namely land preparation, plants and plantation, irrigation system, constructions, greenhouses, nurseries and equipment and machinery, but not land purchase;
- Selection criteria will include investment in renewable energy from agriculture, forestry and other renewable sources, investment in digital solutions in agriculture, modernisation of farms, resource efficiency, including water saving, and territorial criteria;
- Investment support is a non-refundable subsidy, as a proportion of the approved eligible investment;
- Support rate starts at 65% and is degressive with the increase of the investment level:
 - 65,0% up to 50,000 € - maximum of 33,000 €;
 - 58,5% up to 100,000 € - maximum of 58,500 €;
 - 52,0% up to 200,000 € - maximum of 104,000 €;
 - 33,8% up to 500,000 € - maximum of 169,0000 €;
 - 16,9% up to 1,000,000 € - maximum of 169,000 €.
- The investment may start after the presentation of the application and must be completed two years after the signature of the financing contract.

3.1 Public Support

Support to agri-industrial investment:

- Support is expected to begin in 2024, granted through measure C.3.1.1 (and C.3.1.2, specifically for environmental-related investments);
- Eligible investments include the purchase and installation of machinery and equipment, the construction of buildings and manufacturing facilities, and intangible investments, including industrial property, software, studies, projects and advice on environmental and economic sustainability, but not land purchase;
- Selection criteria will include investment in renewable energy from agriculture, forestry and other renewable sources, job creation in rural areas, and companies in the bioeconomy sector;
- Investment support is a non-refundable subsidy, as a proportion of the approved eligible investment;
- Support rate starts at 65% and is degressive with the increase of the investment level:
 - 65,0% up to 50,000 € - maximum of 33,000 €;
 - 58,5% up to 100,000 € - maximum of 58,500 €;
 - 52,0% up to 200,000 € - maximum of 104,000 €;
 - 33,8% up to 500,000 € - maximum of 169,0000 €;
 - 23,4% up to 1,000,000 € - maximum of 234,000 €
 - 19,5% up to 1,200,000 € - maximum of 234,000 €.
- The investment may start after the presentation of the application and must be completed two years after the signature of the financing contract.

3.1 Public Support

Portugal 2030 - Support to agri-industrial investment:

- Support to agri-industrial (processing and marketing) investment projects with an investment above 4 M€ (except when the agricultural inputs come mostly from the same company or when conducted by POs) are financed under [Portugal 2030](#), by the national operational programme COMPETE and the Regional operational programmes;
- These programmes support productive corporate investment in productive innovation and in the increase in productive capacity, and the qualification and internationalisation of companies of SMEs;
- Eligible investment, with a minimum of 250,000 €, is financed through a non-refundable subsidy of 25% to 40%, according to company size, investment location, financing and other criteria;
- Eligible investment includes tangible and intangible assets such as equipment and machinery, software and hardware, patents, licences, among others. Construction works cannot go beyond a given percentage of total eligible investment; this percentage depends on location and sector.

3.2 Bank Financing

Main banks financing agricultural projects in Portugal:

- Portugal has a small number of large banks, as well as a number of medium and small banks.
- The medium and small banks usually have a more targeted focus, namely in two main areas:
 - “Boutique” banks focusing on investment banking, corporate finance, wealth management, stocks and bonds, among others;
 - Local banks, providing support to the local economy;
- These medium and small banks are less prone to financing projects in the agricultural sector, although local banks may do so, mostly for small/medium sized-projects;
- The main large banks in Portugal all have specific departments focusing in the agribusiness sector and have been looking at the sector with an increasing interest in the past few years;
- The largest of these are:
 - [CGD – Caixa Geral de Depósitos](#), the state-owned bank;
 - [Millennium BCP](#) – the largest Portuguese private bank;
 - [Santander Totta](#) – owned by the Spanish large international bank Santander;
 - [BPI](#);
 - [Novo Banco](#);
 - [Grupo Crédito Agrícola](#).

3.2 Bank Financing

Main bank loan features for agricultural investments:

(This chapter is based on information collected by AGRO.GES after contacting the Agribusiness Departments of three of the six main banks in Portugal)

Introduction

- Portuguese banks are extremely open to financing agricultural operations; however, foreign investors require special caution and an in-depth analysis of their technical and financial capacity, so that the banks (particularly the risk departments) feel confident in granting credit;
- As such, projects that include the purchase of land have much higher possibilities of being financed, since the banks are able to obtain an important collateral in the country;
- Additionally, banks are much more likely to provide credit to projects that may obtain collaterals via available EU schemes or from mutual guarantee societies in Portugal (ex: [Agrogarante](#), [Lisgarante](#), [Garval](#), among others);
- In the following sub-chapters the main features for the credit lines for each type of investment (land purchase and land lease) are presented;
- For the purpose of this document, we consider small projects those with an investment of up to 0,5 M€ and large projects those with an investment above 5 M€;
- All information presented is based on general information provided by the banks; each financing request is analysed individually and the established conditions may vary from those presented.

3.2 Bank Financing

Main bank loan features for agricultural investments:

Installation of an orchard with land purchase:

- Having the land as part of the investment is very reassuring to the banks, as it provides a good collateral; in such case, the financing requests are much more likely to be easily and quickly approved;
- Usually, and according to the perception of the project's and the client's risk, the banks finance between 50% to 60% of the investment, including CAPEX and OPEX for the first years (until the project generates positive cash-flows); riskier projects may get only 30-40%; sometimes a *pari pasu* scheme is requested;
- If the client's investment is made up-front (for instance, by buying the land and securing the loan for the development), the risk is reduced and credit approval is easier;
- Loan to value (LTV), subject to an evaluation of the land by independent evaluators hired by the bank, is usually around 60-80%;
- Besides land, other collaterals may be required in order to reach the desired LTV or when risk perception is higher; these usually include a cash deposit, personal guarantees or pledges over shares);
- Interest rates are based on the variable Euribor index (6 or 12 months) plus a spread that may range from 1,5% to 2,5% (usually closer to 2%-2,5% for new foreign investors);
- The reimbursement period for projects based on permanent crops may go to a maximum of 12 to 15 years, usually with a grace period of 2-3 years (only for amortisation);
- The procedures to open the credit line may amount to 0,5% of the credit line's amount (including land valuation and other commissions), with a similar cost (0,5%) for management fees.

3.2 Bank Financing

Main bank loan features for agricultural investments:

Installation of an orchard with land lease:

- When presented with the possibility of financing a greenfield agricultural investment without land purchase, the banks are much more sceptical, particularly if the investors are not a well-known and reliable Portuguese company; the absence of land as the main collateral will make the awarding of the credit line much more difficult or even impossible;
- Using available EU schemes or mutual guarantee societies in Portugal (ex: [Agrogarante](#), [Lisgarante](#), [Garval](#), among others) may make this easier, although these will also be more difficult to obtain;
- Bank financing will probably be lower, at around 30% to 40% of the investment, including CAPEX and OPEX for the first years (until the project generates positive cash-flows) and the client's investment is probably required up-front;
- Without land, other reassuring collaterals are mandatory; these usually include a significant cash deposit, the presentation of a guarantee from a bank with an internationally reliable rating, a lien on the lease and/or collateralisation of the equipment;
- Interest rates are also based on the variable Euribor index (6 or 12 months) plus a spread that may be higher than for the purchase, ranging from 2,0% to 3,0% (usually closer to 2,5% for new foreign investors);
- The reimbursement period for projects based on permanent crops may go to a maximum of 8 to 12 years, usually with a grace period of 2-3 years (only for amortisation);
- The procedures to open the credit line may amount to 0,5% of the credit line's amount (including land valuation and other commissions), with a similar cost (0,5%) for management fees.

3.2 Bank Financing

Main bank loan features for agricultural investments:

Purchase or lease of an existing orchard:

- According to the banks, the conditions for granting financing to investments on existing orchards (either in full production or still not producing) are similar to those presented for both scenarios for greenfield investments;
- Adjustments to these conditions depend on the knowledge of the existing orchard and its previous owners, the quality of the orchard's implementation, the record of production in previous years (if existing) and the number of years that the orchard is still expected to be in production;
- According to these features, and if all are found suitable, the financing conditions may be improved when compared to those for greenfield projects.

Comparison table (greenfield):

Type	Financing Rate	Loan to Value Rate	Index	Spread	Grace Period	Reimbursement Period	Collateralisation	Setting-up and management fees
Purchase	50-60%	60-80%	Euribor 6m or 12m	1,5-2,5%	2-3 years	12-15 years	Land + others as complement	0,5% + 0,5%
Lease	30-40%	-	Euribor 6m or 12m	2,0-3,0%	2-3 years	8-12 years	Several	0,5% + 0,5%

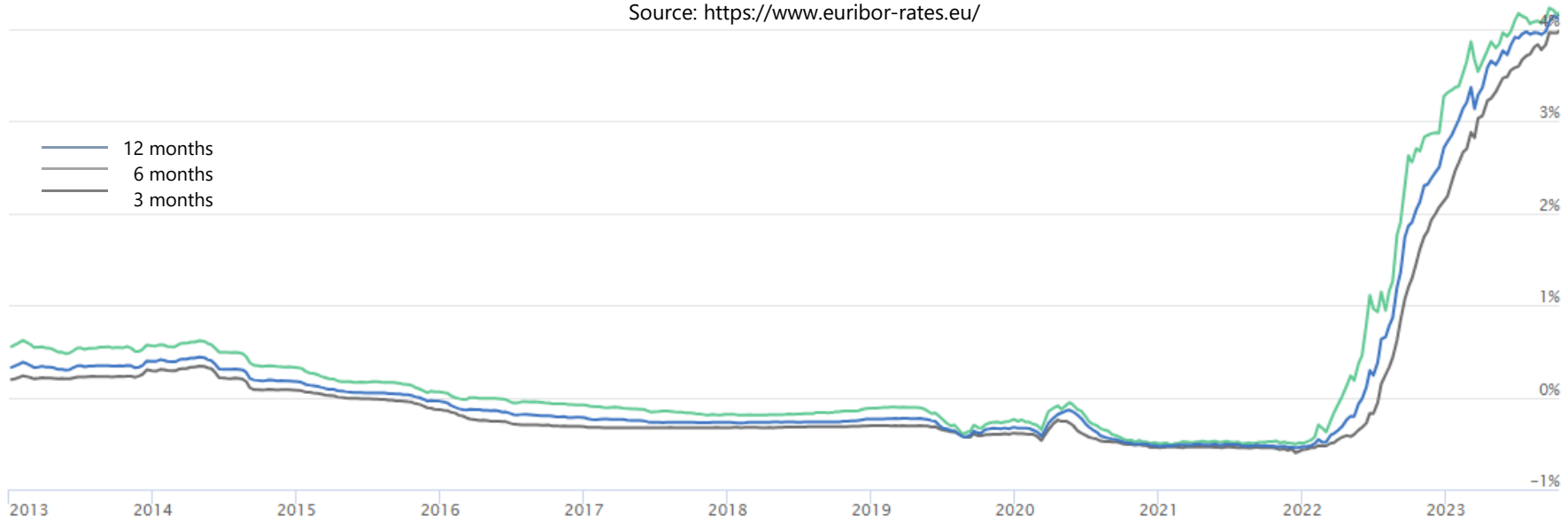
Source: Summary of information provided by the Agribusiness Departments of three large Portuguese banks.

3.2 Bank Financing

Analysis of the interest rates evolution in the past ten years in Portugal

- The following chart shows the evolution of the Euribor rate in the past ten years;
- EURIBOR® (Euro Interbank Offered Rate) is the rate at which wholesale funds in euro could be obtained by credit institutions in the EU and EFTA countries in the unsecured money market (source: <https://www.emmi-benchmarks.eu/euribor-org/about-euribor.html>) It is a daily reference rate, published by the European Money Markets Institute, based on the averaged interest rates at which Eurozone banks offer to lend unsecured funds to other banks in the euro wholesale money market;
- The chart shows a steady decrease in Euribor rates in the past decade, with negatives values from 2015/2016 to 2022. The surge since 2022 has brought Euribor rates to around 4%, severely penalizing the cost of capital.

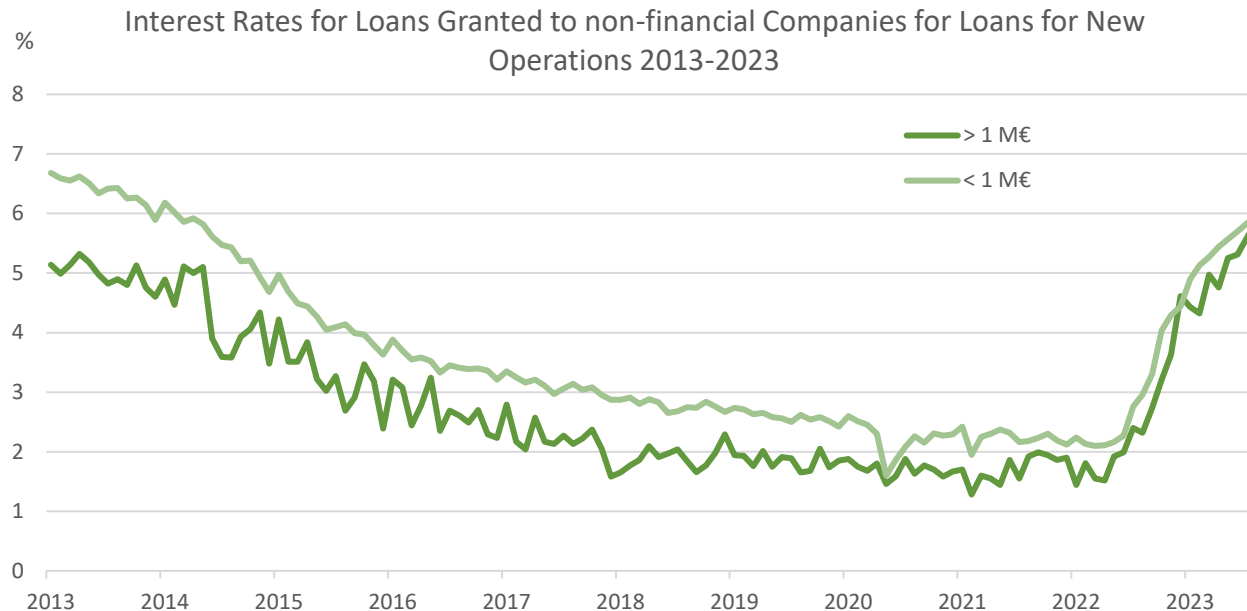
Source: <https://www.euribor-rates.eu/>



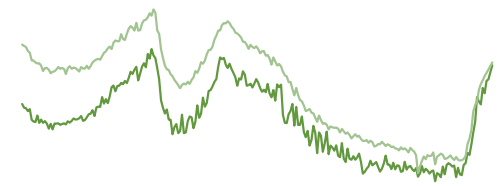
3.2 Bank Financing

Analysis of the interest rates evolution in the past ten years in Portugal

- Taking into account the evolution of the Euribor rates, the financing rates to loans to investment projects in Portugal in the non-financial sector, have also experienced a significant decrease;
- The following chart shows the average monthly rates to loans for operations below and above 1 M€, the latter being on average around 1% lower than the former;
- As it may be seen, 2020 and 2021 saw the lower rates in the decade, and even in the past 20 years, averaging 1,70% and 1,71% for investments higher than 1 M€ and 2,22% and 2,23% for investments below that threshold;
- However, the large increase since last year led these interest rates to a current value (as of 31/08/2023) of 5,87% and 5,98%, respectively;



- The smaller chart presents the same information, starting from 2003, showing a higher long-term volatility of these rates, namely with the previous peaks in 2008 and 2011/2012, in periods of financial crisis.



Source: Banco de Portugal
(Portuguese Central Bank)

3.2 Bank Financing

EIF Agri Credit Line:

- The so called “[EIF Agri](#)” credit line is a mechanism established by the Portuguese Rural Development Programme (RDP) with the European Investment Fund in order to enhance the credit availability for the financing of agricultural and agro-industrial investments projects in Portugal;
- The mechanism is a financial instrument under which selected Portuguese banks provide credit lines with a 70% guarantee issued by the EIF (with the participation of RDP);
- The selected banks are CGD, Santander Totta, BPI and Caixa Agrícola;
- Investing companies must present an application in one of these banks, complying with most rules that apply for similar investments under RDP measures;
- The same types of investment are eligible, but also including OPEX up to 30% of the eligible CAPEX or 200,000 € (whichever is higher) and used equipment;
- A limit of 3 to 5 M€ of eligible investment is applicable;
- The financing conditions for each project are agreed between the bank and the investor and should be more favourable than without guarantee;
- Typically, interest rates should be lower, LTV should be higher and collateral demands should be inferior;
- Loans may have a 3-year grace period and a 12-15 years reimbursement period, which must finalise by 2035;
- The line is now closed, but is expected to be extended until the end of 2025;
- Some banks, such a Millennium BCP, which are not included in this line provide similar lines, also under EIF guarantees, to support agricultural investments.

3.2 Bank Financing

Mutual Guarantee:

- Mutual Guarantee is a mutual support system for micro, small and medium enterprises (SMEs), which fundamentally translates into the provision of financial guarantees to facilitate obtaining credit in conditions suitable for the investments and activity cycles of these companies;
- The sharing of risk with other financial entities facilitates the companies' access to credit, allowing them to obtain credit conditions (amounts, cost and term) suited to their needs, usually with a reduction in other guarantees provided to the financial sector by companies.
- The mutual guarantee system in Portugal is based on four mutual guarantee societies, one of which, Agrogarante, specializes in the agricultural, forestry and agro-industrial sectors. The mutual guarantee system is also supervised by [Banco de Portugal](#).
- The use of the mutual guarantee mechanism allows the companies to access bank credit under more favourable conditions than would otherwise be the case without mutual guarantee. In fact, the final cost that the company will bear for bank financing with mutual guarantee may be lower than it would be if it had resorted to a bank loan individually;
- The company will always have to pay a guarantee fee to the mutual guarantee company and will be responsible for paying the cost of bank financing to the bank. However, the sum of these two costs may be lower than the cost of a bank loan without mutual guarantee;
- Since its implementation in 2006 and until 31st May 2021, Agrogarante has provided 23,42 guarantees, for a total of 2,015 M€ and for financing of 3,518 M€, supporting 11,195 entities to conduct investments of 3,810 M€.

3.3 Relevant issues for foreign investment

Benefits for foreign investments in Portugal:

- Besides the set of investment support measures available to all investors in Portugal, foreign investors with relevant projects may benefit from other specific incentives to setting-up their operations in Portugal.

Permanent Committee for Investor Support:

- On one hand, the Portuguese State, has made available a Permanent Committee for Investor Support ([CPAI](#)), composed of [AICEP](#) – Portugal Global (the Portuguese Agency for Investment and External Trade in Portugal) and several bodies which are involved in investment support, licensing and approval;
- It aims to ensure close monitoring of all licenses, authorizations or approvals under the competence of the central and local administration that are necessary to obtain for the realization of the project, allowing the overcoming any administrative blockages in order to ensure a swift response;
- An investment project that is monitored by CPAI is assigned a Process Manager, who is responsible for closely monitoring the development of the process, relating directly with the promoter within the scope and for the purpose of all legal procedures and regulations that provide for the issuance of opinions, authorizations, decisions or licensing;
- In particular, the Process Manager is responsible for ensuring compliance with the schedule and making the necessary efforts to clarify and agree on positions with a view to implementing the investment project, namely through the promotion of meetings with Public Administration entities and with the promoter, as well as with the respective articulation with the local administration.
- The monitoring of an investment project by CPAI is made possible for all those who cumulatively contribute to the creation or maintenance of the number of direct jobs; have proven economic viability; are susceptible to adequate environmental and territorial sustainability; and have a positive impact in areas such as gross added value, innovation, energy efficiency, upstream and downstream positive effects.

3.3 Relevant issues for foreign investment

Tax Incentives for Investment in Portugal:

- The Portuguese State makes available a set of tax benefits meant to promote and support the investment in sectors deemed strategic for the economy, fostering sustainable growth, job creation and regional development in Portugal, which may be applicable to investments in the agricultural sector:
 - **Contractual tax benefits for productive investment** - tax benefits, on a contractual basis, with a period of validity of up to 10 years from the completion of the investment, for projects whose relevant investments are equal to or higher than 3 M€; the benefits are a tax credit, determined through the application of a percentage, ranging from 10% to 25% of the relevant investments of the project effectively afforded, to be deducted from the amount of the Corporate Income Tax assessed; and/or an exemption or reduction of Municipal Tax on Real-Estate Ownership (IMI), Municipal Tax on Real-Estate Transactions (IMT) and Stamp Duty for buildings, acts or contracts needed and/or used in connection with relevant investments;
 - **Tax Regime for Investment Support (RFAl)** - deduction to the Corporate Income Tax of 10% to 30% (depending on the location of the investment) of the amounts of investment up to 15 M€ (10% to amounts above 15 M€); exemption or reduction of Municipal Tax on Real-Estate Ownership (IMI), Municipal Tax on Real-Estate Transactions (IMT) and Stamp Duty for buildings, facts or acts linked with relevant investments (also depending on location);
 - **System of Tax Incentives for Research and Business Development (SIFIDE II)** - deduction of the Corporate Income Tax assessed, up to its sum, of the amount corresponding to the share of research and development expenditure which was not State financial contribution without return, carried out in the tax periods starting between 1 January 2014 and 31 December 2025, in a double percentage: i) Basic Rate: over the amount of total expenditure in research and development in the current year 32,5%; ii) Incremental Rate: 50% increase in expenditure compared with the average of the two preceding years (maximum of 1.5 M€);
 - **Tax Benefits Applicable to Inland Areas** – intended for micro, small or medium-sized enterprises, whose core business is agricultural, commercial, industrial or in the services sector in inland areas; the benefit will be a rate of Corporate Income Tax of 12.5%, applicable to the first 50,000 € of the tax base.
- All tax incentive mechanisms above are subject to a set of rules and conditions that must be met by the companies, which are not presented above.

Source: "Tax Incentives for Investment in Portugal", AT, 2023



4. MAIN HORTICULTURE CROPS

4. Crop Analysis – Figures and Outlook

In this chapter we will analyse, with a slide for each, the characteristics of the following crops.

- Almond
- Walnut
- Vineyard
- Table Grapes
- Olives
- Orange
- Tangerine
- Avocado
- Peach
- Plums
- Pear
- Apple
- Cherry
- Blackberry
- Raspberry
- Blueberry
- Strawberry
- Potato
- Industry Tomato
- Melon/Watermelon
- Pepper
- Cabbage
- Zucchini
- Carrot
- Onion
- Garlic
- Pumpkin
- Fresh Tomato
- Lettuce
- Other Vegetables
- Flowers and Ornamental Plants

The analysis covers, for each crop:

- technical and performance data (area, production, yield, price);
- other important data (water need, self sufficiency and type of soil);
- recent developments and outlook.

All data are updated to the year 2022, through the National Statistics Institute and AGRO.GES data, except the map of the area per municipality which is based on the Agricultural Census of 2019.

4.1. Figures and Outlook - Almond

Technical Data

Area (ha)	63 884
Average Area (ha/producer)	2,20
Production Cycle (months)	Feb - Oct

Performance Data

Yield (t/ha)	1,5 – 3,0
Price (€/kg)	2,8 – 6,0
Revenue (€/ha)	4 200 – 18 000

Other Data

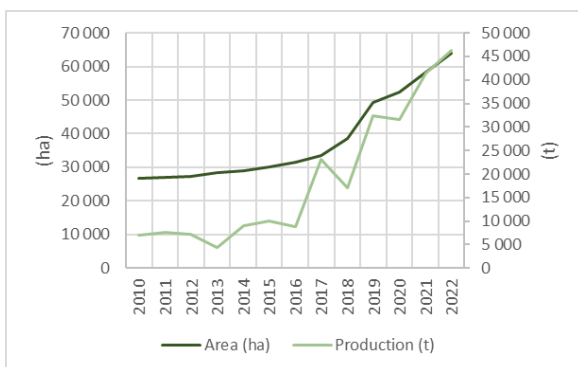
Water need (m ³ /ha)	5 000 – 6 000
Soil type	Loamy & Loamy-Sandy
Self-sufficiency (%)	224,3

Recent Development

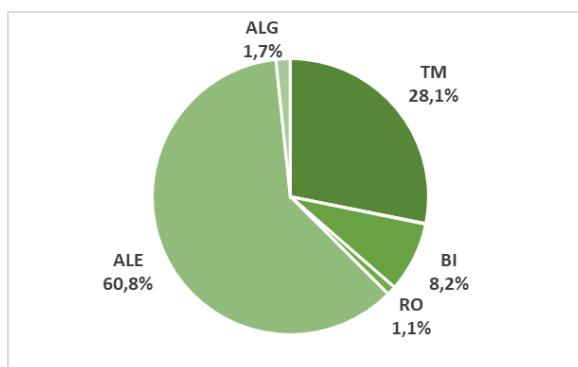
- Originally Trás-os-Montes and Algarve were the production regions for almond, however, over the years, their traditional plantations have been abandoned.
- New investments have been done in new regions, in modern production systems, in Baixo Alentejo, Alto Alentejo, Beira Interior and Ribatejo, responsible for the huge increase in area and production in recent years.
- Crop with considerable interest due to added value in production and processing
- Generally investments financed by big groups and equity funds.
- New processing units have been established.

Outlook

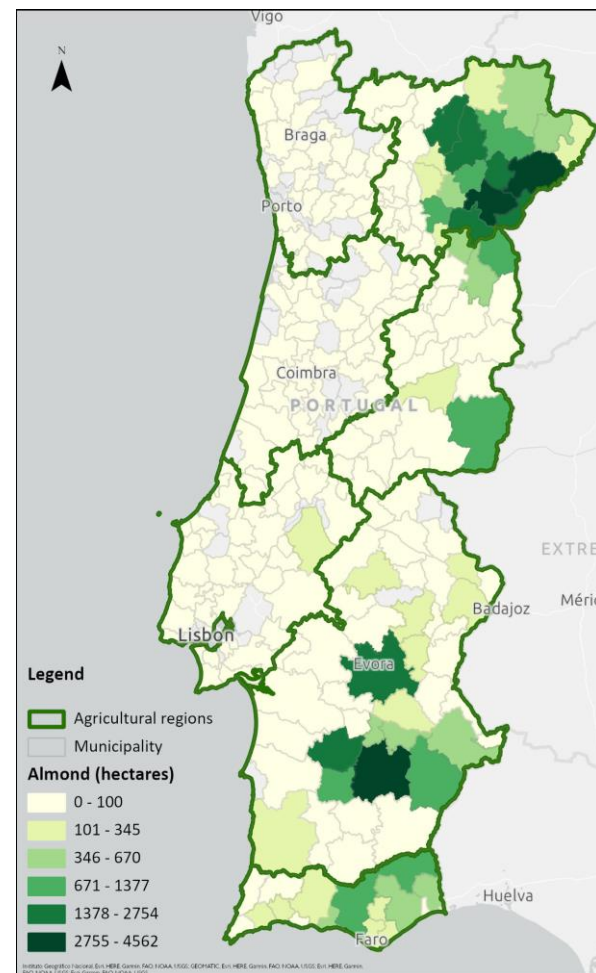
- The area in Portugal is expected to remain stable due to emerging water restrictions and the ongoing price fluctuations (decreasing) observed in recent years.
- An increase in production is expected in the coming years due to the entry into production of new orchards.
- Consumption/demand has been increasing, and continued growth is anticipated (globally).
- There is room for "more sustainable" solutions.



Almond Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Almond Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Almond area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook - Walnut

Technical Data

Area (ha)	5 492
Average Area (ha/producer)	0,86
Production Cycle (months)	Apr - Nov

Performance Data

Yield (t/ha)	2,5 – 5,0
Price (€/kg)	2,5 – 3,5
Revenue (€/ha)	6 250 – 17 500

Other Data

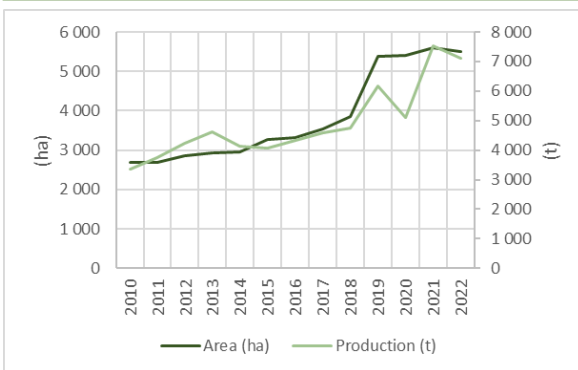
Water need (m ³ /ha)	7 000 – 8 000
Soil type	Loamy & Loamy-Sandy
Self-sufficiency (%)	68,7

Recent Development

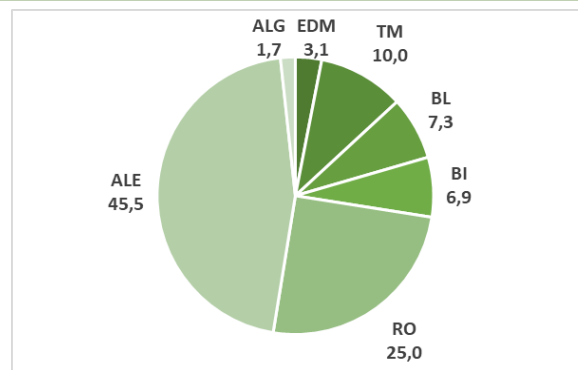
- A crop with limited expression in terms of area, but that has evolved positively in recent years.
- The emergence of new production models has allowed a doubling of the planted area.
- New plantations are primarily focused in the Alqueva region (EFMA).
- Crop with considerable interest due to added value in production and processing.
- Generally investments financed by big groups and equity funds.
- New processing units have been established.

Outlook

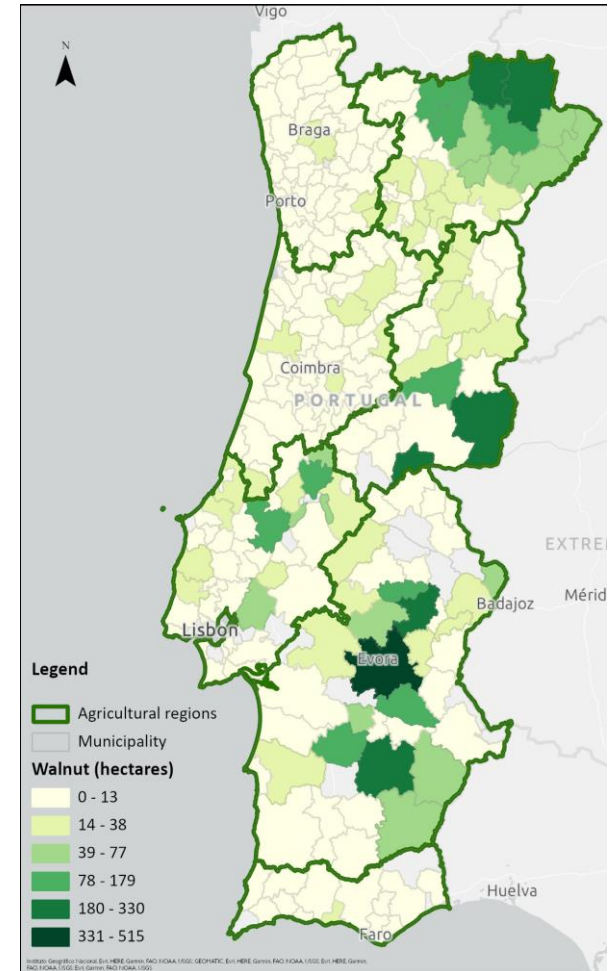
- High technological and innovation level.
- Potential for new areas outside de Alqueva perimeter.
- Adaptability of new production varieties.
- There is room for "more sustainable" solutions.



Walnut Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Walnut Production, in volume, per agricultural region (%) (Source: INE, 2023)



Walnut area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook - Vineyards

Technical Data

Area (ha)	173 518
Average Area (ha/producer)	1,53
Production Cycle (months)	Jan - Nov

Performance Data

Yield (t/ha)	5 - 14
Price (€/kg)	0,4 – 0,5
Revenue (€/ha)	2 000 – 7 000

Other Data

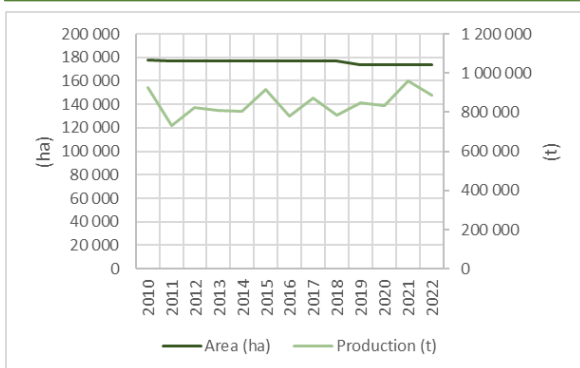
Water need (m ³ /ha)	1 500 – 2 500
Soil type	All
Self-sufficiency ¹⁾ (%)	104,5

Recent Development

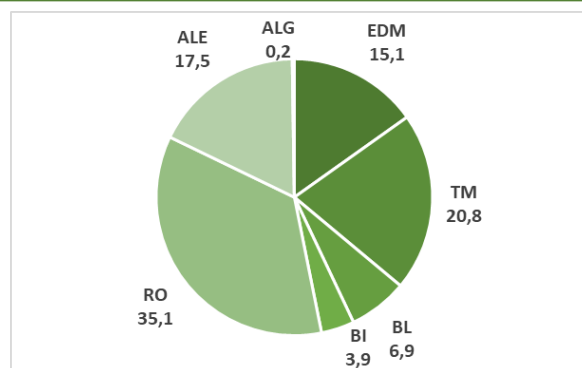
- After a significant restructuring in the late 20th century, modernization efforts persist across all regions of the country in viticulture and winemaking.
- Notably, new players have entered the market, and larger traditional entities have experienced growth.
- The rise of small and medium-sized production units producing high-quality wines with increasing market visibility is also noteworthy.

Outlook

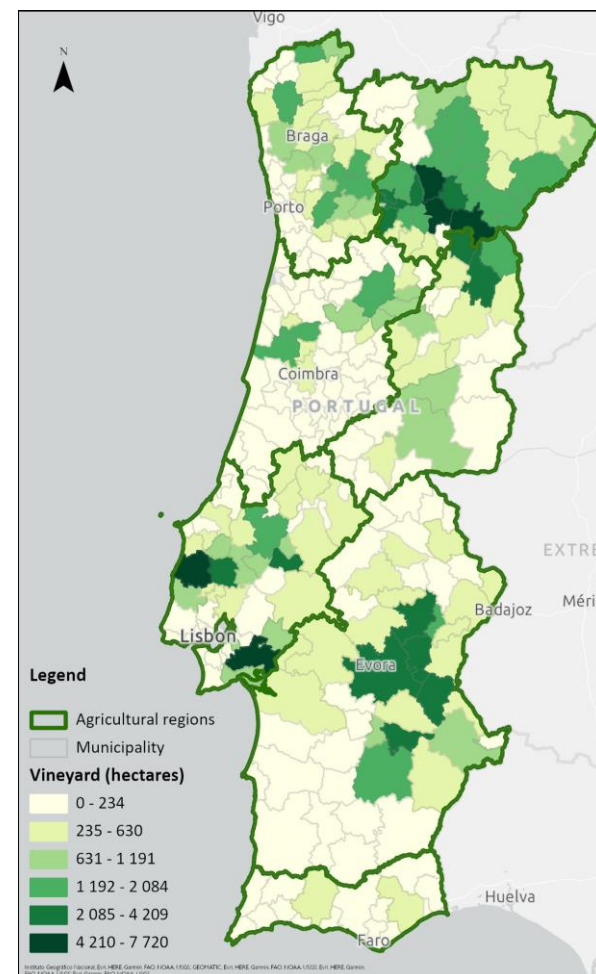
- The area is expected to remain relatively stable due to difficulties in obtaining authorisations for planting new vineyard areas.
- There is an increasing appreciation and recognition of Portuguese wines internationally.
- There is also potential for technological innovation and the growth of sustainability in the sector.



Vineyards Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Vineyards Production, in volume, per agricultural region (%) (Source: INE, 2023)



Vineyards area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Table grapes

Technical Data

Area (ha)	2 273
Average Area (ha/producer)	0,65
Production Cycle (months)	Jan - Nov

Performance Data¹⁾

Yield (t/ha)	20 - 30
Price (€/kg)	2,00 – 3,00
Revenue (€/ha)	40 000 – 90 000

Other Data

Water need (m ³ /ha)	5 000 – 6 000
Soil type	All
Self-sufficiency (%)	36,4

Recent Development

- The area and production have remained relatively constant, with some annual fluctuations.
- There has been a shift in production to irrigated areas, primarily in Alentejo, involving larger units with more modern production systems.
- Recently, new technologies have emerged, generating significant interest among consumers and consequently, producers (such as seedless grapes).
- There is a notable brand with high visibility in the production of seedless fruit.
- Large retailers show interest in expanding national production.

Outlook

- An increase in production area is anticipated, with the expansion of production to other regions.
- There is also a prolongation of the production season.
- Additionally, investments are being made in the preservation of the product.

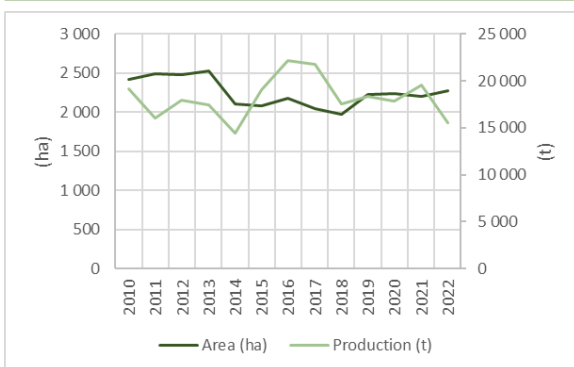


Table grapes Area (ha) and Production (t) in Portugal
(Source: INE, 2023)

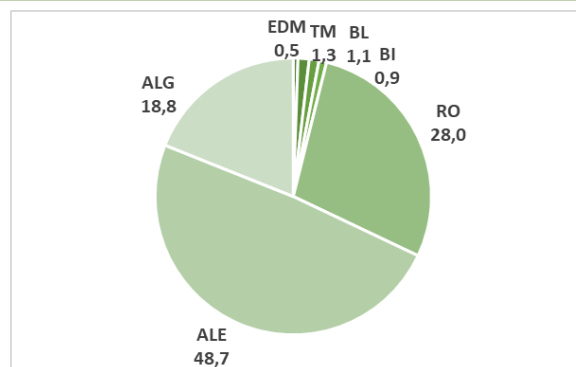


Table grapes Production, in volume, per agricultural region (%) (Source: INE, 2023)

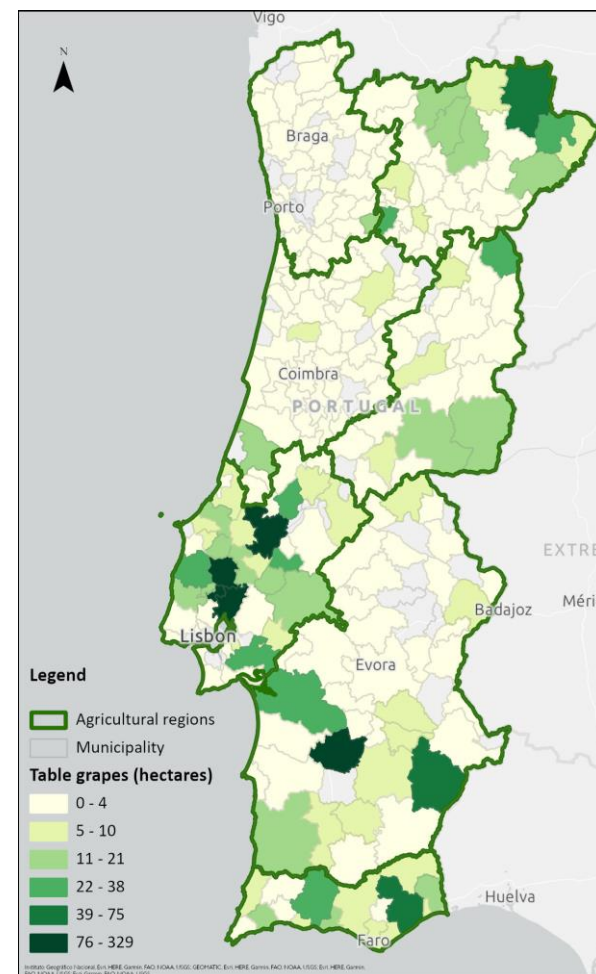


Table grapes area, per municipality, in 2019 (ha)
(Source: INE 2019)

1) Without seeds

4.1. Figures and Outlook – Olives (Olive oil)

Technical Data

Area (ha)	372 577
Average Area (ha/producer)	2,92
Production Cycle (months)	Feb - Nov

Performance Data¹⁾

Yield (t/ha)	10 - 12
Price (€/kg)	0,35 – 0,60
Revenue (€/ha)	3 500 – 7 200

Other Data

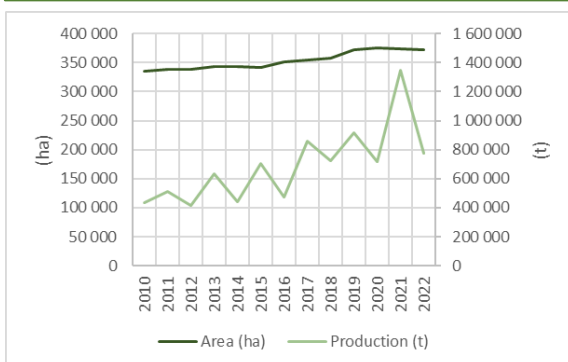
Water need (m ³ /ha)	3 000 – 4 000
Soil type	Loamy-Sandy
Self-sufficiency ²⁾ (%)	180,8

Recent Development

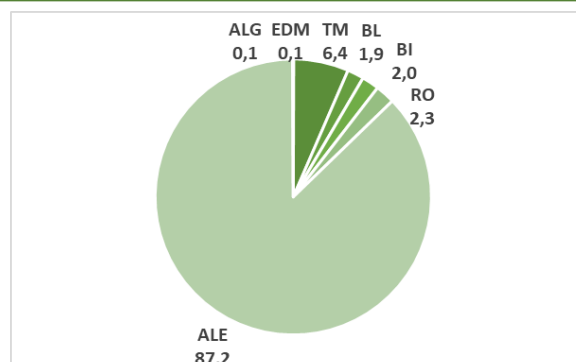
- There is a gradual abandonment of traditional olive groves and a rise in olive groves in pots and hedges linked to high irrigation productivity.
- The sector has undergone significant modernization both in production and the industry
- Despite some substitutions in the recent past for other crops (e.g., almonds), it is currently in a growth phase, witnessing the emergence of new plantations.
- The product is well-received internationally, and there are numerous operators with diverse profiles in terms of regions, size, and market integration.

Outlook

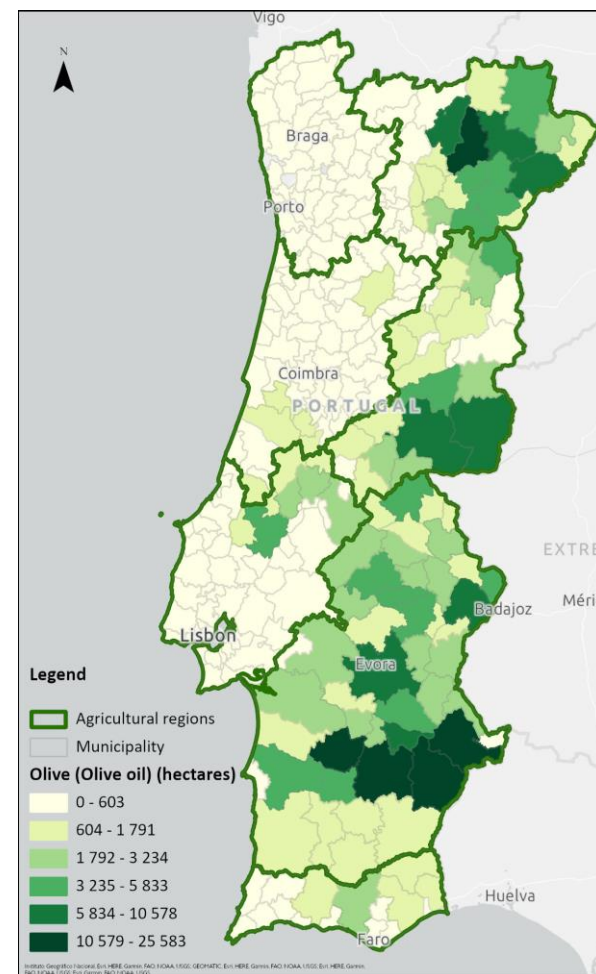
- There is an anticipated increase in area in the near future, considering the favorable price trend of olive oil in recent years.
- Expected growth in the added value of olive oil (certification and packaging).
- Emphasis on the sustainability of the production system.
- Modernization of more traditional systems.



Olives Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Olives Production, in volume, per agricultural region (%) (Source: INE, 2023)



Olives area, per municipality, in 2019 (ha) (Source: INE 2019)

1) High density
2) Olive oil; Media 2018-2021

4.1. Figures and Outlook – Orange

Technical Data

Area (ha)	17 210
Average Area (ha/producer)	0,70
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	10 -30
Price (€/kg)	0,30 – 0,40
Revenue (€/ha)	3 000 – 12 000

Other Data

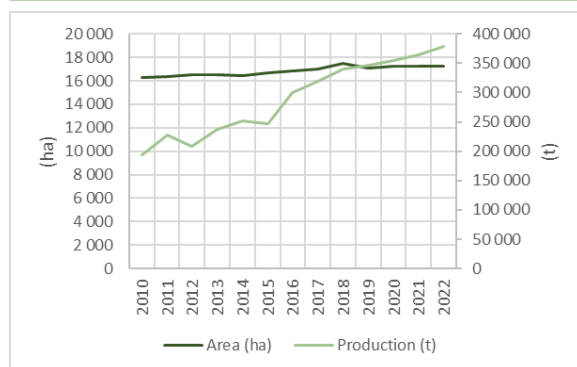
Water need (m ³ /ha)	5 500 – 6 500
Soil type	Light Loamy / Loamy-Sandy
Self-sufficiency (%)	108,0

Recent Development

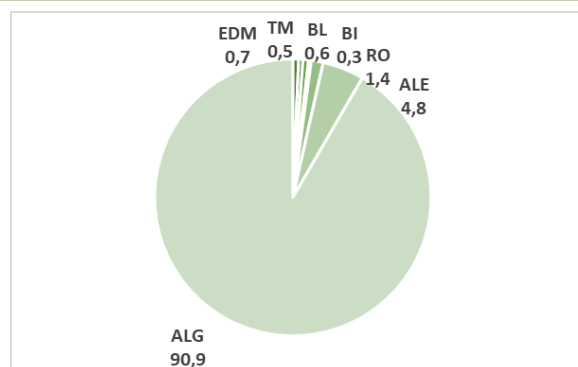
- The cultivation is carried out throughout the country but with small areas (average 0,25 hectares per farm) in the majority of them.
- The area and production have evolved very positively in recent years.
- Production is particularly concentrated in the Algarve region, and new plantations are mainly focused in this area, which has supported national growth.
- The remaining regions have all reduced production in this crop, with some of them introducing technological improvements.

Outlook

- Due to water-related issues in the Algarve region, the growth potential may be compromised.
- New varieties with growth and innovation potential have been emerging.
- These new varieties have allowed for a reduction in the risk of the activity and an increase in the production area due to their greater resistance to frost.



Oranges Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Oranges Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Oranges area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Tangerine

Technical Data

Area (ha)	2 746
Average Area (ha/producer)	0,34
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	35 - 40
Price (€/kg)	0,55 – 0,65
Revenue (€/ha)	19 250 – 26 000

Other Data

Water need (m ³ /ha)	5 000 – 7 000
Soil type	Light Loamy / Loamy-Sandy
Self-sufficiency ¹ (%)	87,9

Recent Development

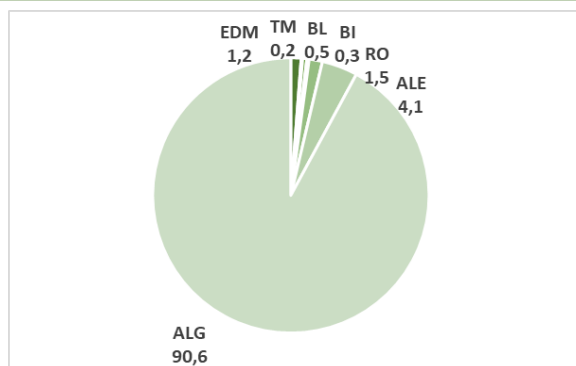
- It is the second most planted citrus fruit after oranges.
- There has been a recent increase in the pace of new plantations, including new varieties.
- Approximately 20% of the production is exported.

Outlook

- There is an expected increase in the area in the near future, driven by investments from investment funds and equity.
- There is growth potential with new varieties and technologies, which have brought increased frost resistance.



Tangerines Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Tangerines Production, in volume, per agricultural region (%) (Source: INE, 2023)



Tangerines area, per municipality, in 2019 (ha)
(Source: INE 2019)

1) Citrus in general

4.1. Figures and Outlook – Avocado

Technical Data

Area (ha)	3 194
Average Area (ha/producer)	0,85
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	10 - 15
Price (€/kg)	2,00 – 2,50
Revenue (€/ha)	20 000 – 37 500

Other Data

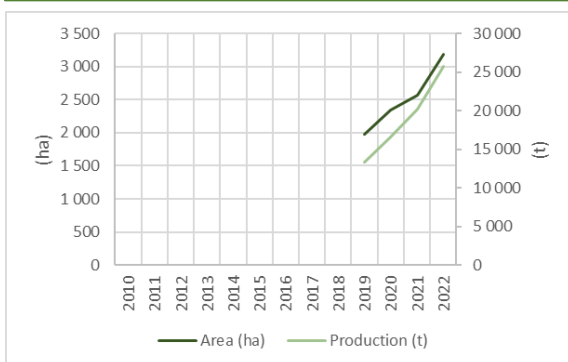
Water need (m ³ /ha)	7 500 – 8 500
Soil type	Sandy
Self-sufficiency (%)	N/A

Recent Development

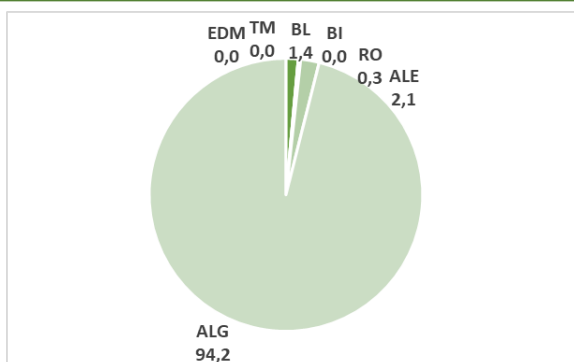
- Recent production is concentrated in the Algarve and, in the last two years, in the Alentejo Coastal area.
- In the Algarve, the majority of production is primarily sent to Spain through a single entity.
- It is a high-value-added crop.
- New operators are being established, creating scale and conservation/packaging units.
- There is innovation associated with the crop, exploring the earliness of national production compared to European markets.

Outlook

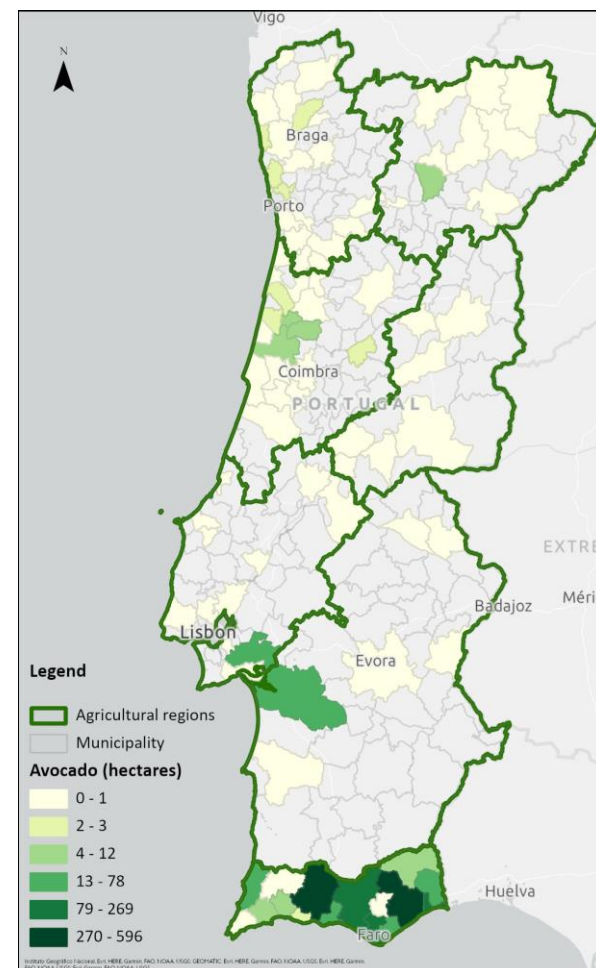
- The growth trend is expected to continue, despite the risks associated with water issues and the sector's negative image.
- There is a diversification of areas with new varieties and efforts to improve the environmental image of the activity.



Avocado Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Avocado Production, in volume, per agricultural region (%) (Source: INE, 2023)



Avocado area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Peach

Technical Data

Area (ha)	3 829
Average Area (ha/producer)	0,37
Production Cycle (months)	Feb - Aug

Performance Data

Yield (t/ha)	25 - 35
Price (€/kg)	0,50 – 0,60
Revenue (€/ha)	12 500 – 21 000

Other Data

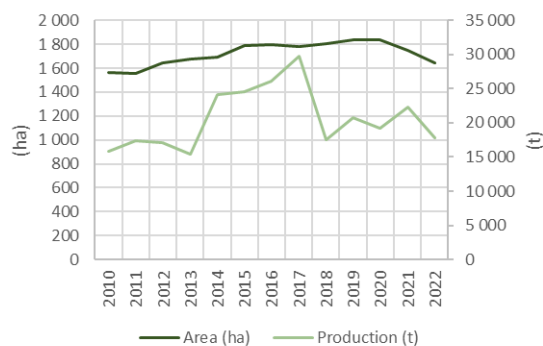
Water need (m³/ha)	2 500 – 5 000
Soil type	Loamy
Self-sufficiency (%)	N/A

Recent Development

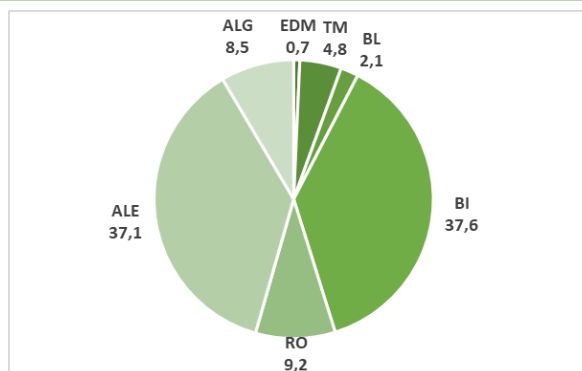
- After a period of strong orchard development in the Ribatejo and Beira Baixa regions, there has been a renewed interest in production in the Cova da Beira and Alentejo regions.
- New, more intensive forms of orchard installation have emerged, and a rapid influx of new varieties allows for increased adaptability in production and ease of commercialization.
- Establishment and restructuring of orchards involve more intensive forms and higher production potential.
- The market is highly competitive and dominated by Spanish production.

Outlook

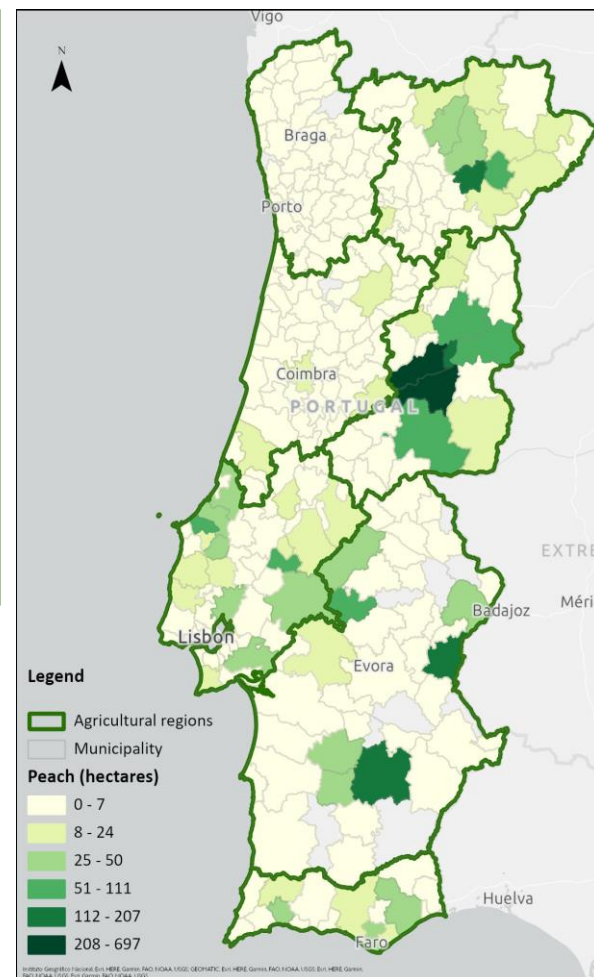
- The creation of larger operators and the establishment of brands/geographical indications are underway.
- The biggest challenge remains the competition from Spanish production.
- There is potential for production growth in irrigated areas.
- There is a growing integration with the packaging and preservation industry, as well as with the production of high-quality juices.



Peach Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Peach Production, in volume, per agricultural region (%) (Source: INE, 2023)



Peach area, per municipality, in 2019 (ha) (Source: INE 2019)

4.1. Figures and Outlook – Plum

Technical Data

Area (ha)	1 644
Average Area (ha/producer)	N/A
Production Cycle (months)	Feb - Sept

Performance Data

Yield (t/ha)	25 - 35
Price (€/kg)	0,30 – 0,70
Revenue (€/ha)	7 500 – 24 500

Other Data

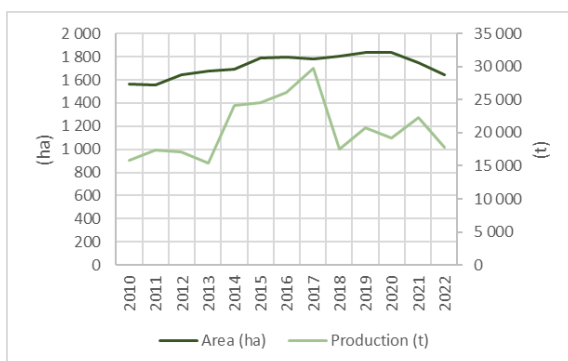
Water need (m ³ /ha)	2 500 – 5 000
Soil type	Loamy – Light Loamy
Self-sufficiency (%)	N/A

Recent Development

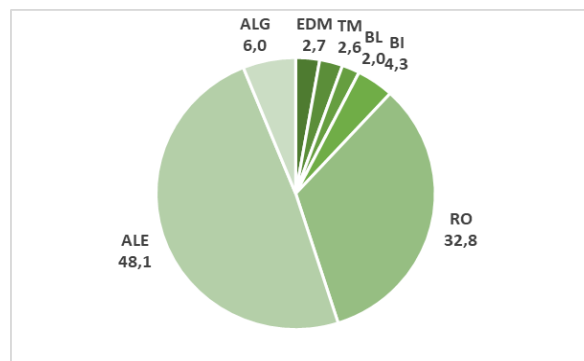
- There has been a renewed interest in production in the West, Cova da Beira, and Alentejo.
- New, more intensive forms of orchard installation, focusing on earlier production, have emerged.
- The rapid emergence of new varieties allows for increased adaptability in production, possibilities for preservation, and ease of commercialization.
- Establishment and restructuring of orchards involve more intensive forms and higher production potential.
- The market is highly competitive and dominated by Spanish production.

Outlook

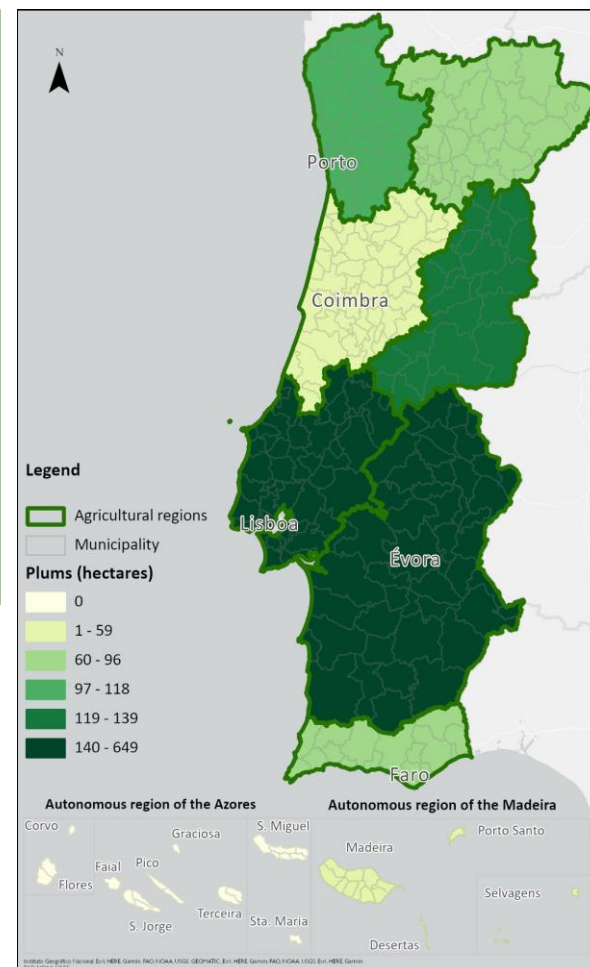
- The creation of larger operators and the establishment of brands/geographical indications are ongoing trends.
- There is growth potential for production in irrigated areas.
- Additionally, there is a growing integration with the packaging and preservation industry, as well as the production of high-quality juices.
- The competition from Spanish production remains the biggest challenge.



Plum Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Plum Production, in volume, per agricultural region (%) (Source: INE, 2023)



Plum area, per agricultural regions, in 2019 (ha) (Source: INE 2019)

4.1. Figures and Outlook – Pear

Technical Data

Area (ha)	10 845
Average Area (ha/producer)	0,76
Production Cycle (months)	Feb - Sept

Performance Data

Yield (t/ha)	25 - 40
Price (€/kg)	0,35 – 0,55
Revenue (€/ha)	8 750 – 22 000

Other Data

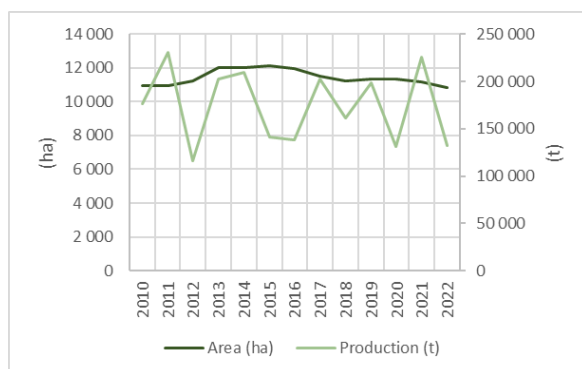
Water need (m ³ /ha)	2 500 – 4 500
Soil type	Loamy – Light Loamy
Self-sufficiency ¹⁾ (%)	180,7

Recent Development

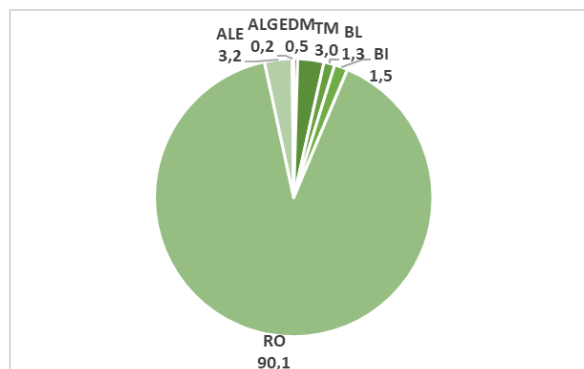
- There is a restructuring of orchards with the abandonment of rainfed agriculture and large tree production with establishment and restructuring of orchards involve more intensive forms and higher production potential.
- The Rocha variety and the Oeste region (Ribatejo and Oeste) continue to be overwhelmingly predominant, reflecting consumer preference and recognition in some export markets.
- The sector is stabilized, with operators of significant size, and some are highly focused on export with well-established markets.
- Due to phytosanitary issues, there has been "abandonment" of some orchards in certain regions, but new investments are emerging in new areas (Cova da Beira).

Outlook

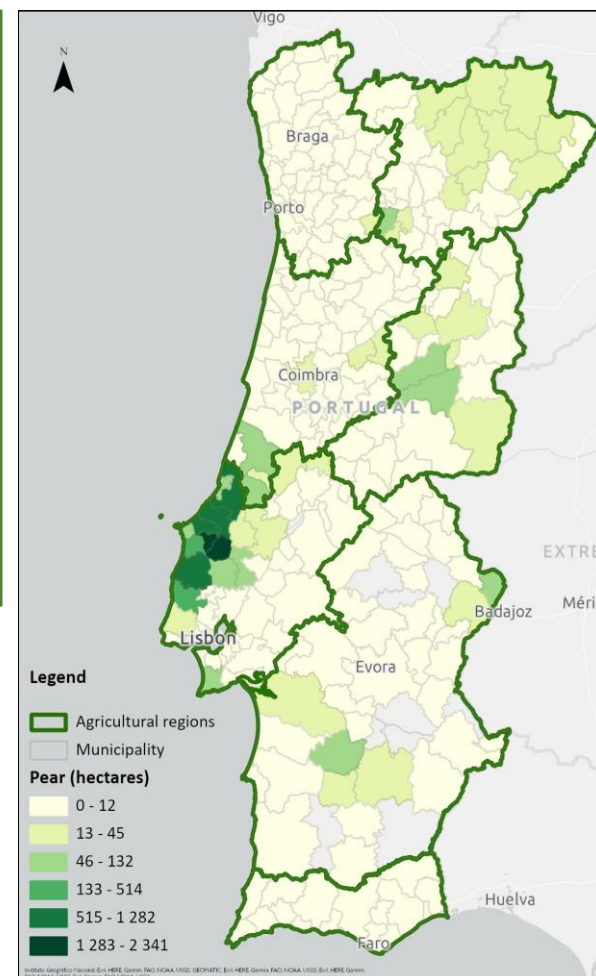
- The production area is expected to remain stable, with a substitution of current orchards for more modern systems (higher plant density).
- The sector has been facing some challenges, primarily in terms of phytosanitary issues.
- The emergence of possible new varieties could stimulate consumption.
- There is potential for technological innovation.



Pear Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Pear Production, in volume, per agricultural region (%) (Source: INE, 2023)



Pear area, per municipality, in 2019 (ha) (Source: INE 2019)

4.1. Figures and Outlook – Apple

Technical Data

Area (ha)	13 730
Average Area (ha/producer)	0,62
Production Cycle (months)	Feb - Sept

Performance Data

Yield (t/ha)	35 - 50
Price (€/kg)	0,30 – 0,50
Revenue (€/ha)	10 500 – 25 000

Other Data

Water need (m³/ha)	2 500 – 4 500
Soil type	Loamy – Light Loamy
Self-sufficiency (%)	112,1

Recent Development

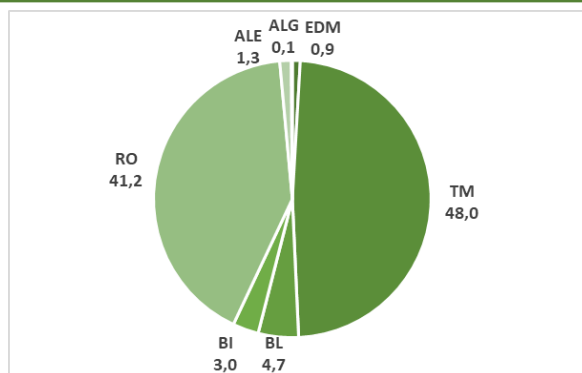
- Installation and restructuring of orchards involve more intensive forms and higher production potential.
- Traditional production areas maintain their dominance, with quality recognized by origin systems.
- The sector is stabilized, with operators of significant size, and some are highly focused on export with well-established markets.

Outlook

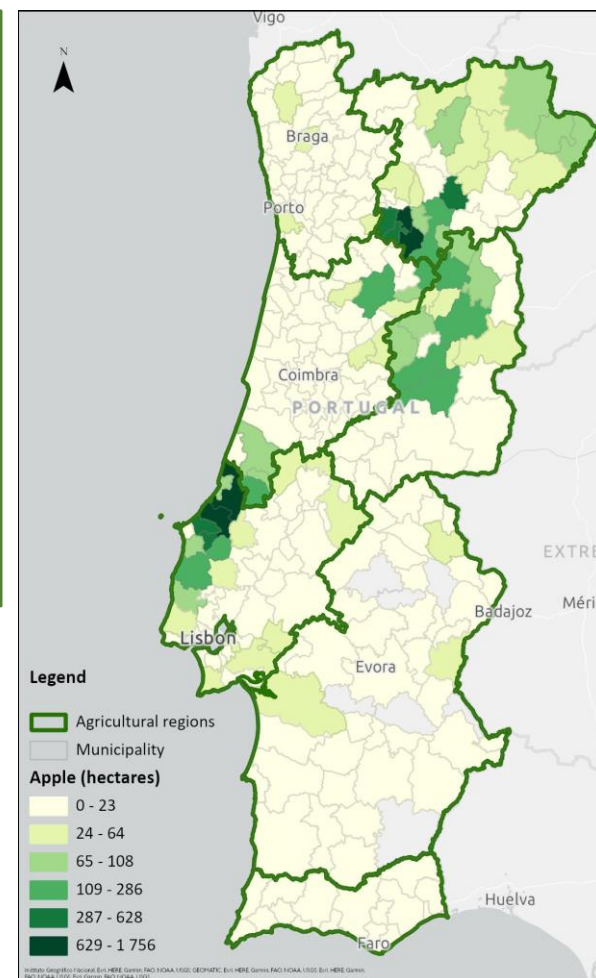
- Integration with the Rocha Pear crop, with possible growth due to the reduction observed in the latter.
- Increasing valuation of fruits with Geographic Indication Protection (IGP).
- There is potential for technological innovation.
- The production area is expected to remain stable, with a substitution of current orchards for more modern systems (higher plant density).



Apple Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Apple Production, in volume, per agricultural region (%) (Source: INE, 2023)



Apple area, per municipality, in 2019 (ha) (Source: INE 2019)

4.1. Figures and Outlook – Cherry

Technical Data

Area (ha)	6 279
Average Area (ha/producer)	0,56
Production Cycle (months)	Feb - Sep

Performance Data

Yield (t/ha)	5 - 10
Price (€/kg)	2,0 – 5,0
Revenue (€/ha)	10 000 – 50 000

Other Data

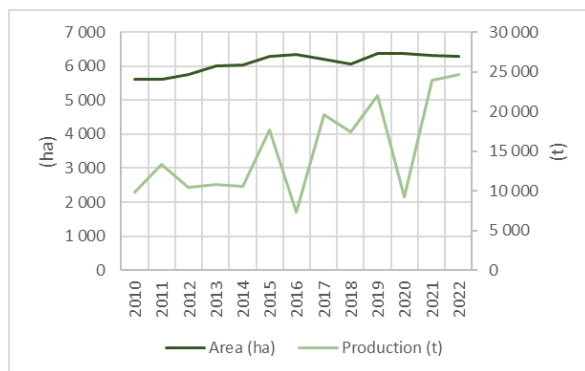
Water need (m³/ha)	2 500 – 5 000
Soil type	Loamy – Light loamy
Self-sufficiency (%)	91,3

Recent Development

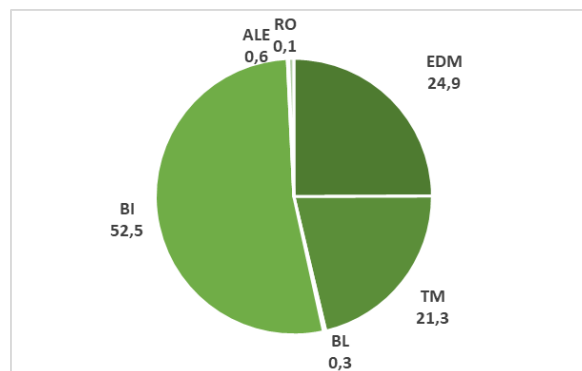
- The area dedicated to cherry cultivation in Portugal has been evolving positively, with significant efforts from the Beira Interior region in promoting its cherries, which are already recognized for their quality.
- In terms of production, there have been some fluctuations, mainly due to climate-related issues, as cherries are a delicate product.

Outlook

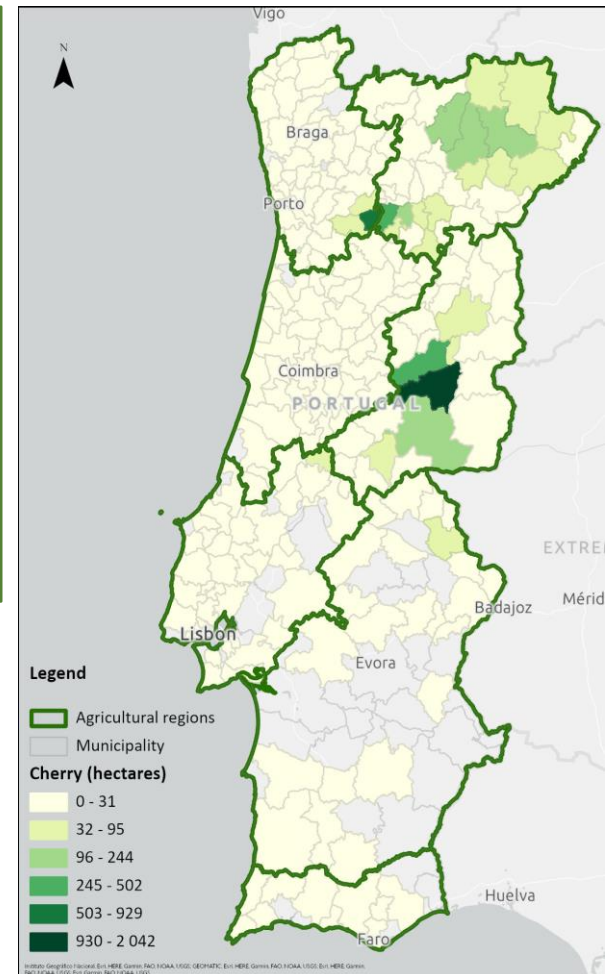
- The area is expected to remain relatively stable.
- Production is anticipated to increase due to the entry into production of new orchards and the renewal of orchards with varieties better adapted to the climate, as well as technologically advanced production systems.
- Investments in covered production systems (tunnels and shelters) are beginning to emerge to protect against adverse conditions that may occur during the year.
- There is potential for technological innovation.
- Human labor will be a challenge due to the regions where production occurs and the high demand.



Cherry Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Cherry Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Cherry area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Blackberry

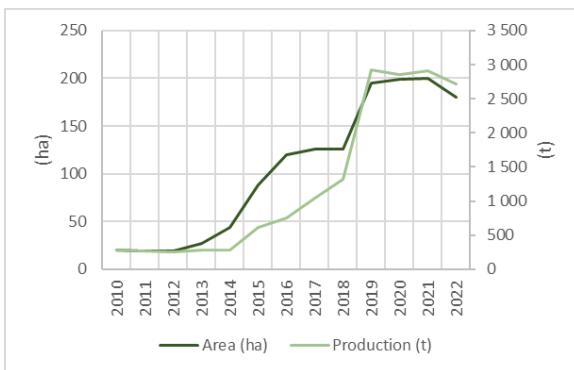
Technical Data		Performance Data		Other Data	
Area (ha)	180	Yield (t/ha)	20 - 30	Water need (m ³ /ha)	5 000 – 6 000
Average Area (ha/producer)	N/A	Price (€/kg)	5,50 – 7,5	Soil type	Sandy – Loamy-Sandy
Production Cycle (months)	All year	Revenue (€/ha)	110 000 – 225 000	Self-sufficiency ¹⁾ (%)	370,6

Recent Development

- Production is centered on the Coastal Alentejo and North
- There has been significant growth in the last decade but however, it has little weight in the berries sector.
- This recent crop is associated with new investments.
- Integration with other berry fruits is observed.
- There are competitive advantages in terms of the export market due to the production seasons.

Outlook

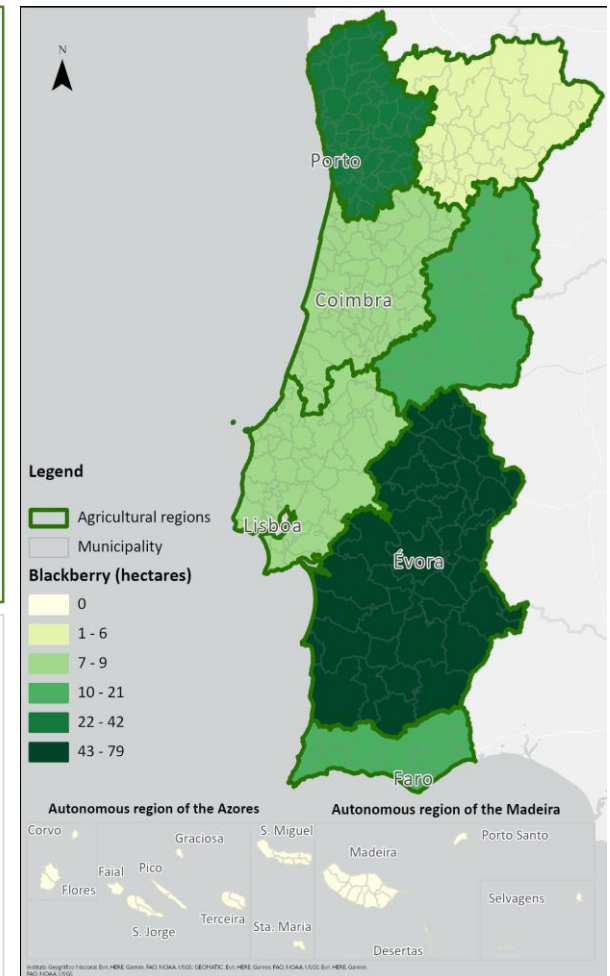
- Export-oriented activity with growth potential.
- High labor demands, especially during harvest, may impact growth.
- Potential for innovation and industry integration
- Prices are stabilized, and are expected to remain so.



Blackberry Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Blackberry Production, in volume, per agricultural region (%) (Source: INE, 2023)



Blackberry area, per agricultural region, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Raspberry

Technical Data

Area (ha)	1 554
Average Area (ha/producer)	N/A
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	20 - 30
Price (€/kg)	6,00 – 7,00
Revenue (€/ha)	120 000 – 210 000

Other Data

Water need (m³/ha)	5 000 – 6 000
Soil type	Sandy – Loamy-Sandy
Self-sufficiency (%)	1 043,6

Recent Development

- Production is centered on the Coastal Alentejo and Algarve, with growth in the Northern part of the country.
- There has been significant growth in the last decade.
- This recent crop is associated with new investments and larger companies.
- Integration with other berry fruits is observed.
- There are competitive advantages in terms of the export market due to the production seasons.

Outlook

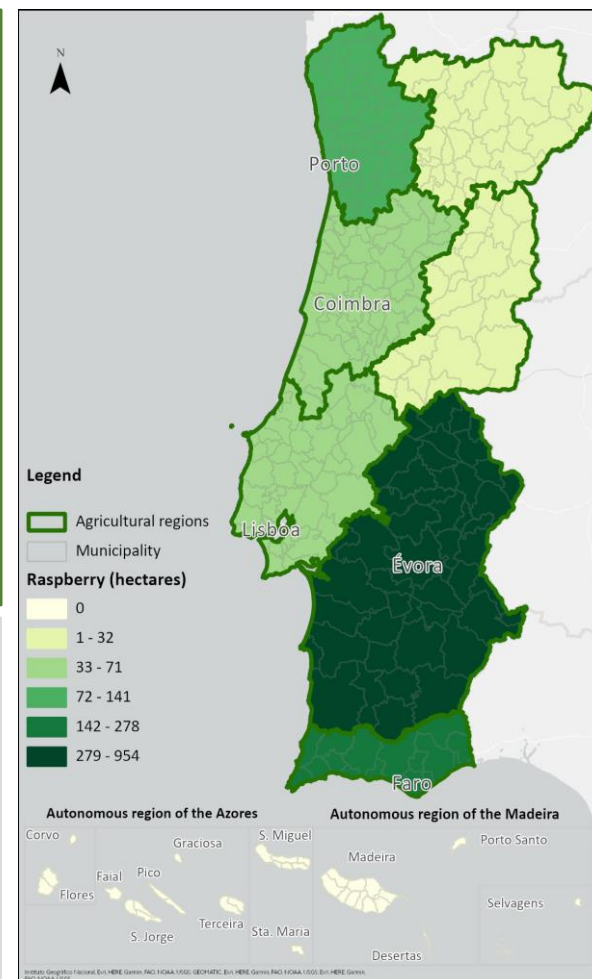
- Export-oriented activity with growth potential.
- High labor demands, especially during harvest, may impact growth.
- Potential for innovation and industry integration
- Prices are stabilized, and it is expected to remain so.



Raspberry Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Raspberry Production, in volume, per agricultural region (%) (Source: INE, 2023)



Raspberry area, per agricultural region, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Blueberry

Technical Data

Area (ha)	2 620
Average Area (ha/producer)	N/A
Production Cycle (months)	Feb - Sept

Performance Data

Yield (t/ha)	10 - 20
Price (€/kg)	3,00 – 5,00
Revenue (€/ha)	30 000 – 100 000

Other Data

Water need (m ³ /ha)	5 000 – 6 000
Soil type	Sandy – Loamy-Sandy
Self-sufficiency (%)	133,1

Recent Development

- Crop was virtually non-existent until 2014.
- Production is dispersed throughout the country, although more concentrated in Minho and Beiras.
- Many small family farms and young farmers are involved.
- The coastal Alentejo region is a more business-oriented production area, but there is growth in the Northern region as well.
- Integration with other berry fruits is also observed.

Outlook

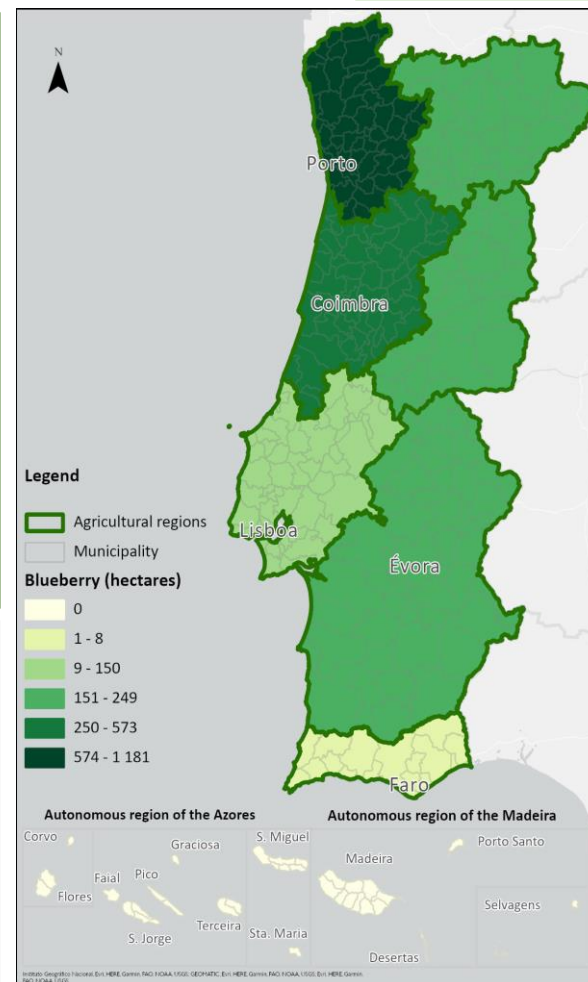
- Export-oriented activity with growth potential, but stabilization of the area is anticipated.
- High labor demands, especially during harvest, may impact growth.
- Potential for innovation and industry integration
- Prices are stabilized, and are expected to remain so.



Blueberry Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Blueberry Production, in volume, per agricultural region (%) (Source: INE, 2023)



Blueberry area, per agricultural region, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Strawberry

Technical Data

Area (ha)	523
Average Area (ha/producer)	N/A
Production Cycle (months)	Sep - May

Performance Data

Yield (t/ha)	15 - 40
Price (€/kg)	1,50 – 4,00
Revenue (€/ha)	22 500 – 160 000

Other Data

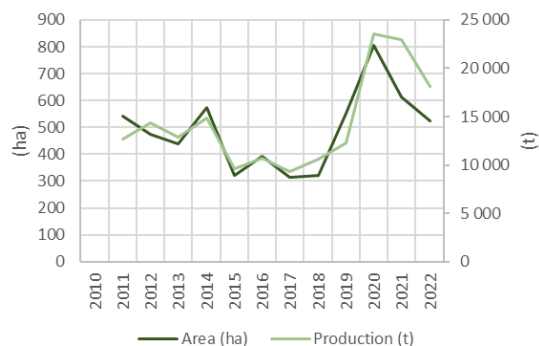
Water need (m ³ /ha)	5 000 – 7 000
Soil type	Sandy – Loamy-Sandy
Self-sufficiency (%)	61,5

Recent Development

- It is a crop that has evolved positively in the last decade, although it was more significant in the recent past.
- This crop is generally grown under tunnels/shelters or even in greenhouses and hydroponic systems.

Outlook

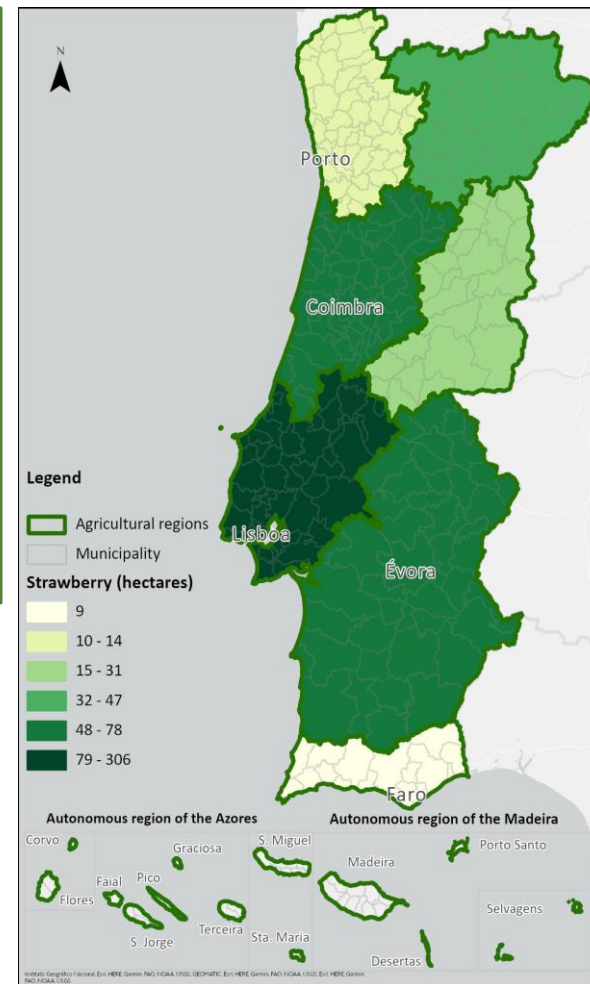
- The competition is becoming increasingly intense, making it challenging to maintain prices.
- It is a sector that has struggled to stand out in the market.



Strawberry Area (ha) and Production (t) in Portugal
(Source: INE, 2023)

NA

Strawberry Production, in volume, per agricultural region (%) (Source: INE, 2023)



Strawberry area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Potato

Technical Data

Area (ha)	14 510
Average Area (ha/producer)	N/A
Production Cycle (months)	Dec - Jul

Performance Data

Yield (t/ha)	40 - 65
Price (€/kg)	0,18 – 0,35
Revenue (€/ha)	7 200 – 22 750

Other Data

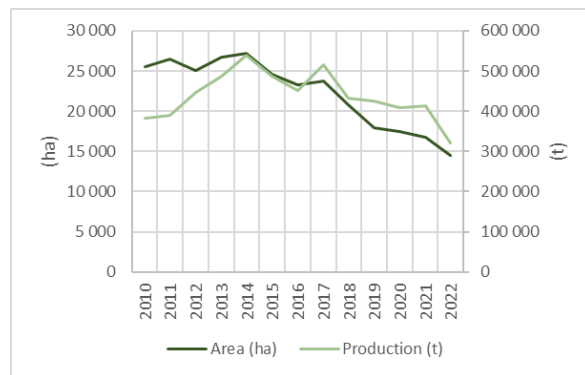
Water need (m³/ha)	4 500 – 5 000
Soil type	Sandy – Loamy-Sandy
Self-sufficiency (%)	59,4

Recent Development

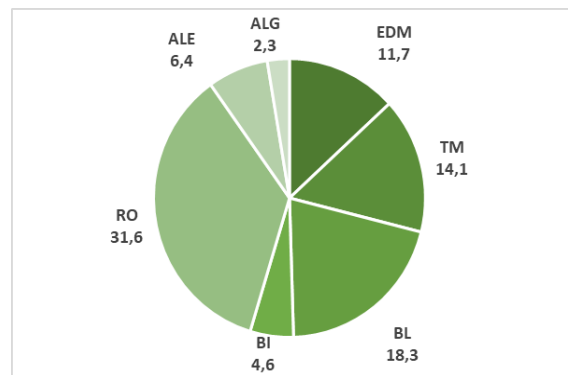
- Progressive reduction in cultivated areas is linked to the disappearance of small family farms and subsistence farming.
- There has been a development of integrated productions with the industry in Ribatejo, along with a growing level of mechanization and innovation.
- This crop is interesting in crop rotation with other annual irrigated crops.

Outlook

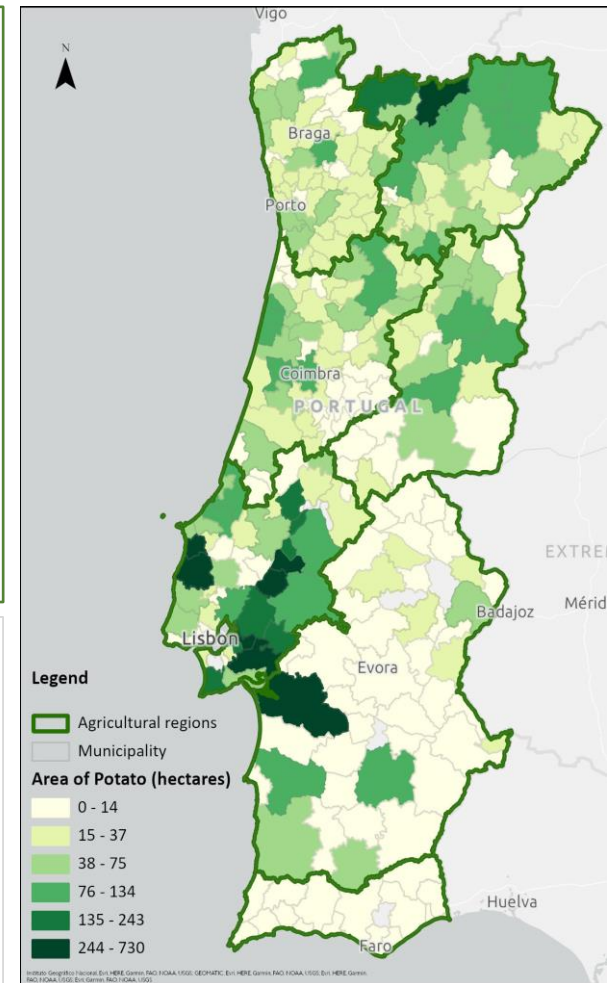
- There is potential for growth in early varieties with higher prices (though less productive) and expansion of varieties for industry.
- The potential for price stabilization at production through greater integration with the industry is present.
- There is an increasing integration with agro-industry
- Possible reduction in area due to changes in human diet.



Potato Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Potato Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Potato area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1 Figures and Outlook – Industry Tomato

Technical Data

Area (ha)	15 193
Average Area (ha/producer)	47,5
Production Cycle (months)	Apr - Oct

Performance Data

Yield (t/ha)	80 - 120
Price (€/kg)	0,075 – 0,145
Revenue (€/ha)	6 000 – 17 400

Other Data

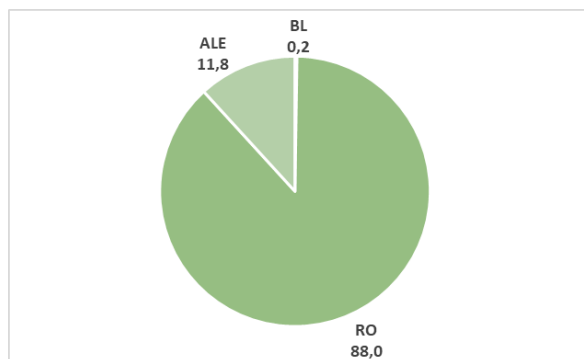
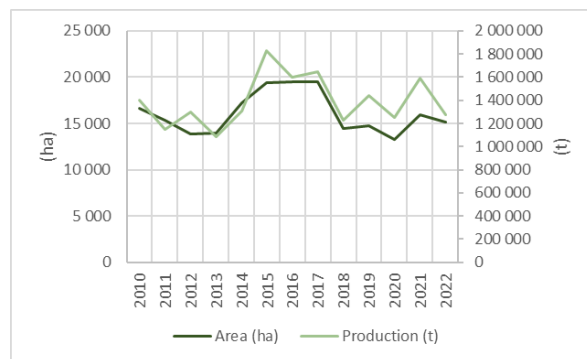
Water need (m³/ha)	4 000 – 5 000
Soil type	Loamy - Clay
Self-sufficiency ¹⁾ (%)	361,1

Recent Development

- In recent years, the area has remained relatively stable, with increased productivity.
- There is a growing integration of production into Producer Organizations, and complete integration with an industry that has seen a high level of concentration.
- The culture is highly stabilized and has a high yield.

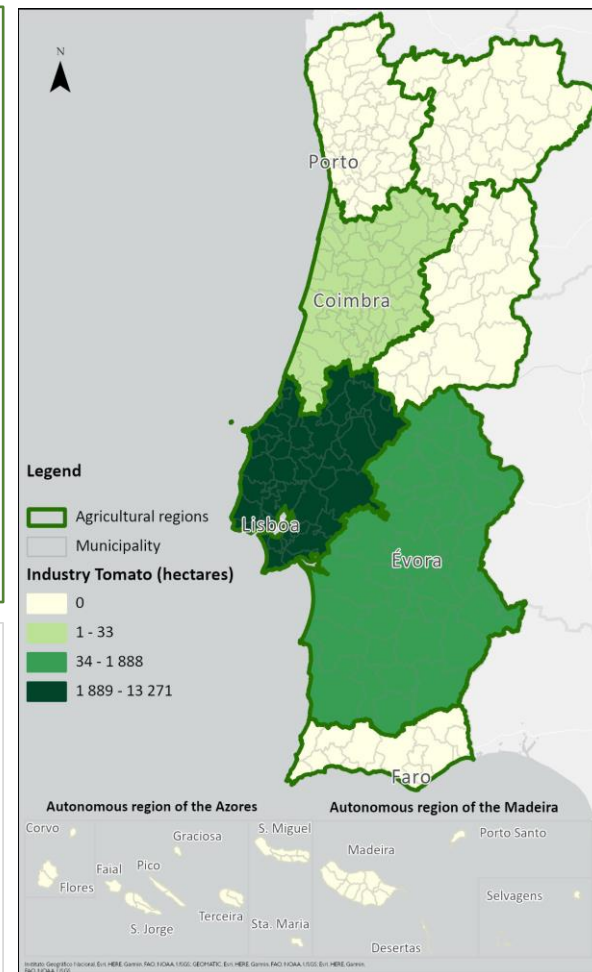
Outlook

- Trend towards the stabilization of areas and increased productivity.
- There is a steady pace of technological innovation applied to the crop, resulting in higher added value in industrial products.



Industry Tomato Area (ha) and Production (t) in Portugal (Source: INE, 2023)

Industry Tomato Production, in volume, per agricultural region (%) (Source: INE, 2023)



Industry Tomato area, per agricultural region, in 2019 (ha) (Source: INE 2019)

1) Processed tomato

4.1. Figures and Outlook – Melon/Watermelon

Technical Data

Area (ha)	2 600
Average Area (ha/producer)	N/A
Production Cycle (months)	Mar - Aug

Performance Data

Yield (t/ha)	25 - 40
Price (€/kg)	0,20 – 0,30
Revenue (€/ha)	5 000 – 12 000

Other Data

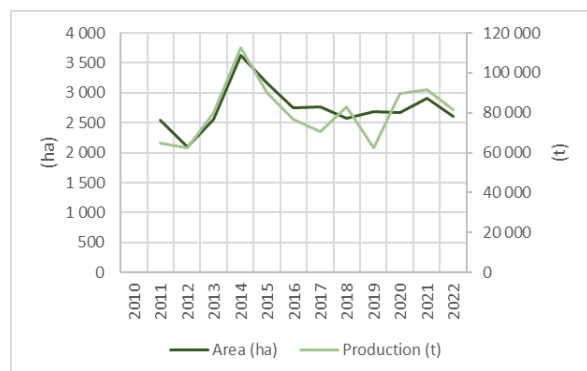
Water need (m ³ /ha)	4 000 – 5 000
Soil type	Loamy – Loamy-Sandy
Self-sufficiency (%)	N/A

Recent Development

- Although it used to be a more significant crop, there has been significant growth in the last decade.
- The crop has shifted from small-scale production and is now focused on the market, with a significant export component.
- The Oeste region concentrates the largest production area, with a growing occupation of areas in horto-industrial rotations.

Outlook

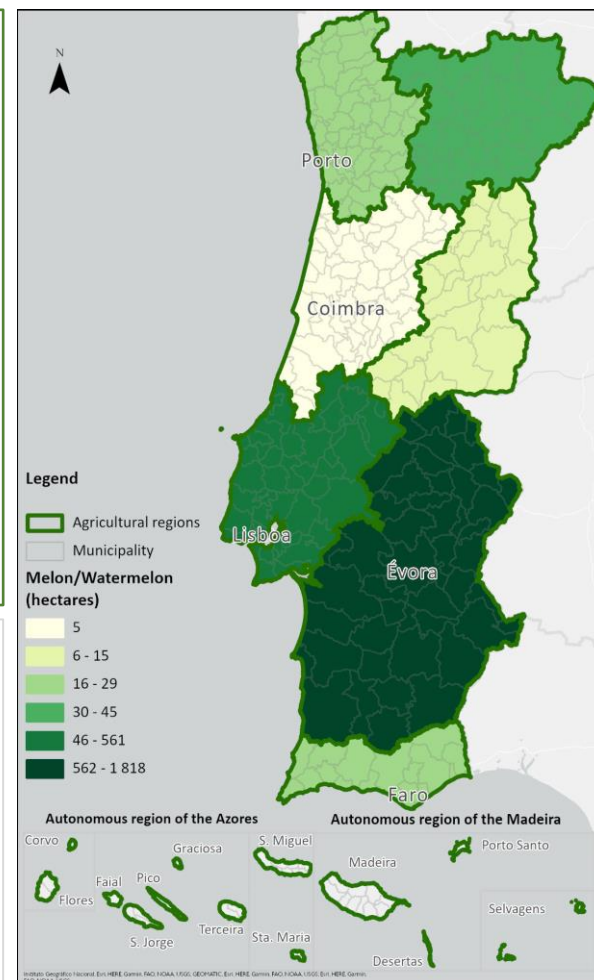
- Production is expected to increase as a result of integration with industry and the introduction of rotations in arable and horticultural crops.



Melon/Watermelon Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Melon/Watermelon Production, in volume, per agricultural region (%) (Source: INE, 2023)



Melon/Watermelon area, per municipality, in 2019 (ha)
(Source: INE 2019)

4.1. Figures and Outlook – Pepper

Technical Data

Area (ha)	1 062
Average Area (ha/producer)	N/A
Production Cycle (months)	Apr - Sep

Performance Data

Yield (t/ha)	30 – 50
Price (€/kg)	0,25 – 0,35
Revenue (€/ha)	7 500 – 17 500

Other Data

Water need (m ³ /ha)	6 500 – 7 500
Soil type	Loamy - Clay
Self-sufficiency (%)	N/A

Recent Development

- Despite the dominance of industrial varieties, there has been some growth in production for fresh consumption, of which greenhouse production is important.
- High level of industrial integration in the Alentejo (north) and Ribatejo (south) for various types of processing.
- Good technological advances and interesting integration into larger irrigated industrial garden rotations.
- Integration into industrial units.
- Compatibility with other irrigated crops.

Outlook

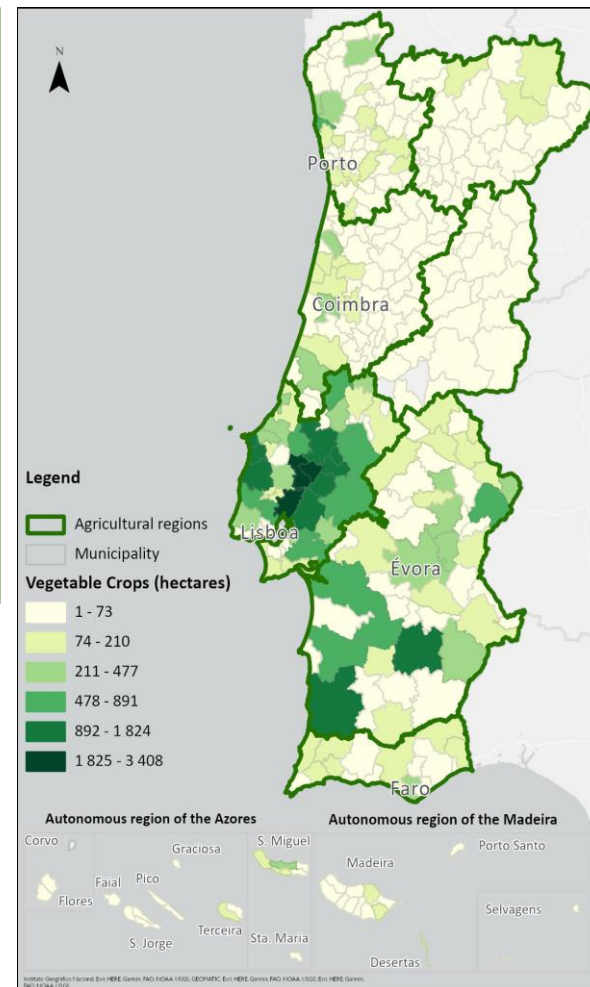
- Production for industry may be increasingly interested in new irrigated areas and diversification of rotations.
- Increasing levels of mechanization.
- Space for innovation in the industry in conjunction with other products.



Pepper Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Pepper Production, in volume, per agricultural region (%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Cabbage

Technical Data

Area (ha)	11 406
Average Area (ha/producer)	N/A
Production Cycle (months)	Apr - Sept

Performance Data¹⁾

Yield (t/ha)	9 - 12
Price (€/kg)	0,55 – 0,65
Revenue (€/ha)	4 950 – 7 800

Other Data

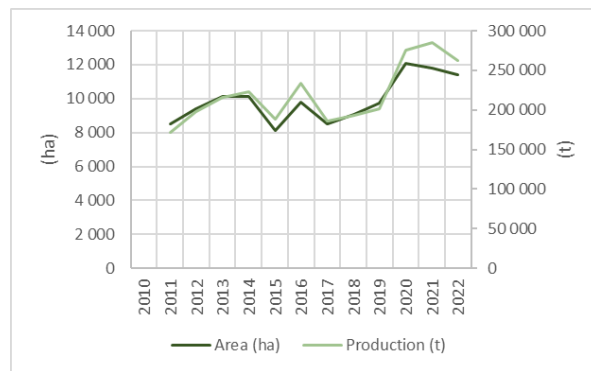
Water need (m ³ /ha)	2 000 – 3 000
Soil type	Loamy - Clay
Self-sufficiency ¹⁾ (%)	N/A

Recent Development

- Production for industry may be increasingly interested in new irrigated areas and diversification of rotations.
- Increasing levels of mechanization.
- Space for innovation in the industry in conjunction with other products.

Outlook

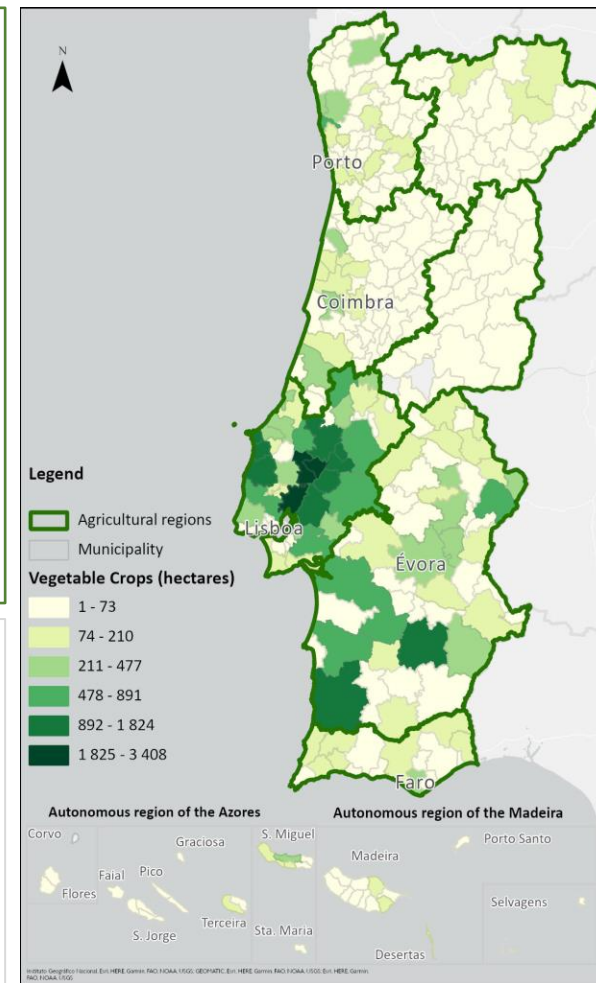
- Explore industrial integration.
- Organic production.
- New varieties (e.g. Bimis).
- Innovation and mechanisation can reduce the need for labour.
- Space for innovation in the industry in conjunction with other products.



Cabbage Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Cabbage Production, in volume, per agricultural region
(%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)²

1) Broccoli
2) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Zucchini

Technical Data

Area (ha)	15 193
Average Area (ha/producer)	N/A
Production Cycle (months)	Apr - Sept

Performance Data

Yield (t/ha)	30 - 50
Price (€/kg)	0,30 – 0,60
Revenue (€/ha)	9 000 – 30 000

Other Data

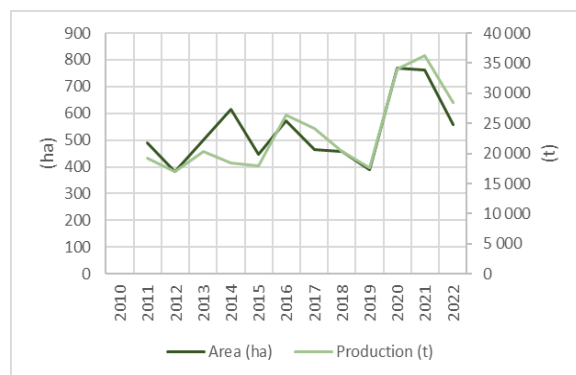
Water need (m ³ /ha)	5 000 – 6 000
Soil type	Loamy
Self-sufficiency (%)	N/A

Recent Development

- Expansion to larger production areas, mainly in Ribatejo.
- Interaction with the frozen food industry, but mainly sold for fresh consumption.
- Interesting production season for integration into crop rotations.
- Increasing level of mechanisation, although harvesting is very demanding.
- Integration into industrial projects.
- Compatibility with other crops in irrigated rotations.

Outlook

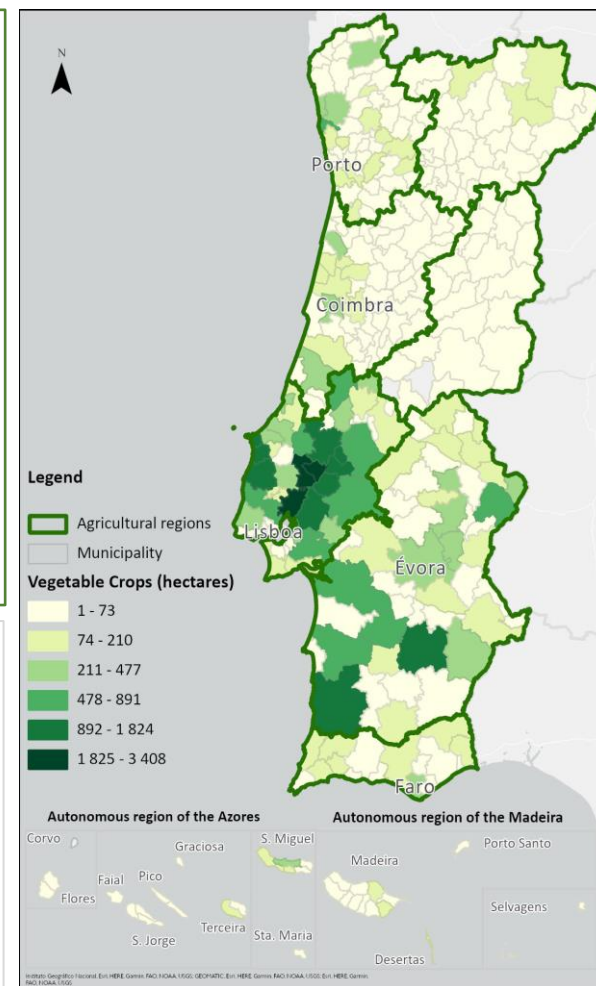
- Explore industrial integration.
- Organic production.
- Innovation and mechanisation can reduce the need for labour.
- Space for innovation in the industry in conjunction with other products.



Zucchini Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Zucchini Production, in volume, per agricultural region
(%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Carrot

Technical Data

Area (ha)	2 057
Average Area (ha/producer)	N/A
Production Cycle (months)	Apr - Sept

Performance Data

Yield (t/ha)	20 - 40
Price (€/kg)	0,20 – 0,30
Revenue (€/ha)	4 000 – 12 000

Other Data

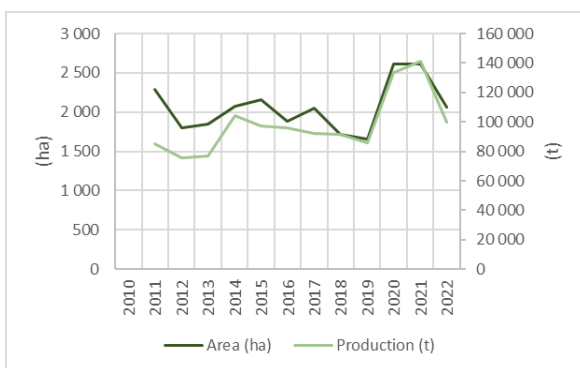
Water need (m ³ /ha)	6 000 – 7 000
Soil type	Sandy
Self-sufficiency (%)	N/A

Recent Development

- Production area stabilised in the last decade, but has grown considerably in the last years.
- Crop very much characterised by small-scale integration into horticulture.
- Progressively being grown in some larger units for the domestic and export markets.
- Articulation with other industrial crops.
- Conservation unit.

Outlook

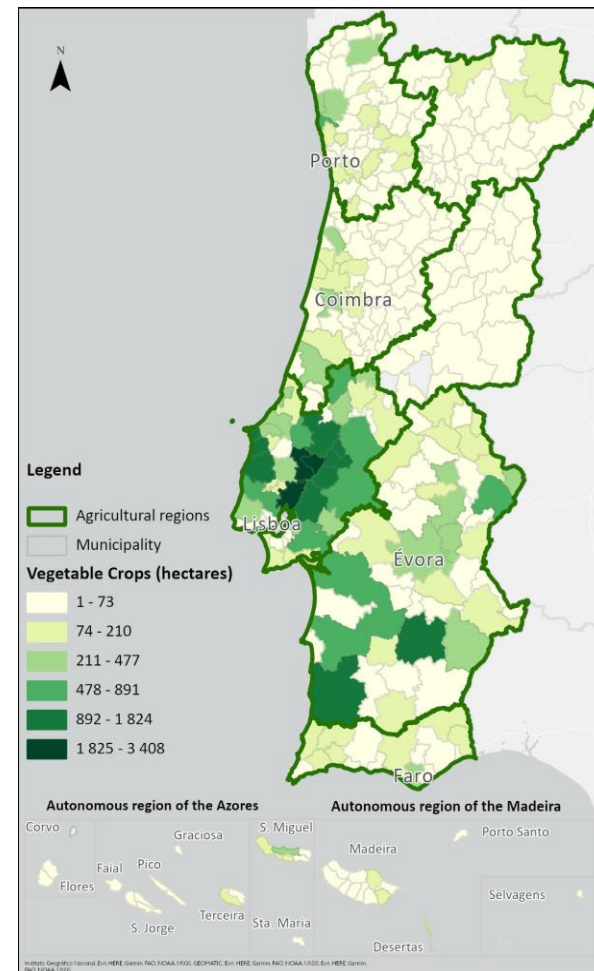
- Pace of technological innovation applied to crop.
- Greater added value in industrial products.
- Integration in rotations with light soils under pivot.



Carrot Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Carrot Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Onion

Technical Data

Area (ha)	1 574
Average Area (ha/producer)	N/A
Production Cycle (months)	Sept - Jun

Performance Data

Yield (t/ha)	25 - 55
Price (€/kg)	0,25 – 0,35
Revenue (€/ha)	6 250 – 19 250

Other Data

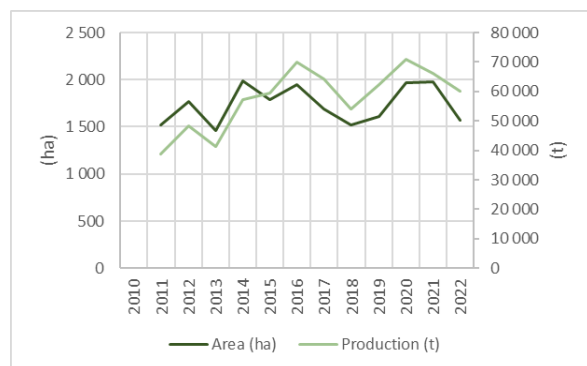
Water need (m³/ha)	6 000 – 7 000
Soil type	Loamy - Sandy
Self-sufficiency (%)	N/A

Recent Development

- Production area stabilised in the last decade.
- Cultivation very marked by small-scale integration into vegetables.
- Product with a high deficit in Portugal.
- Progressively being grown in some larger units for the market.
- Articulation with other industrial crops.
- Conservation unit.

Outlook

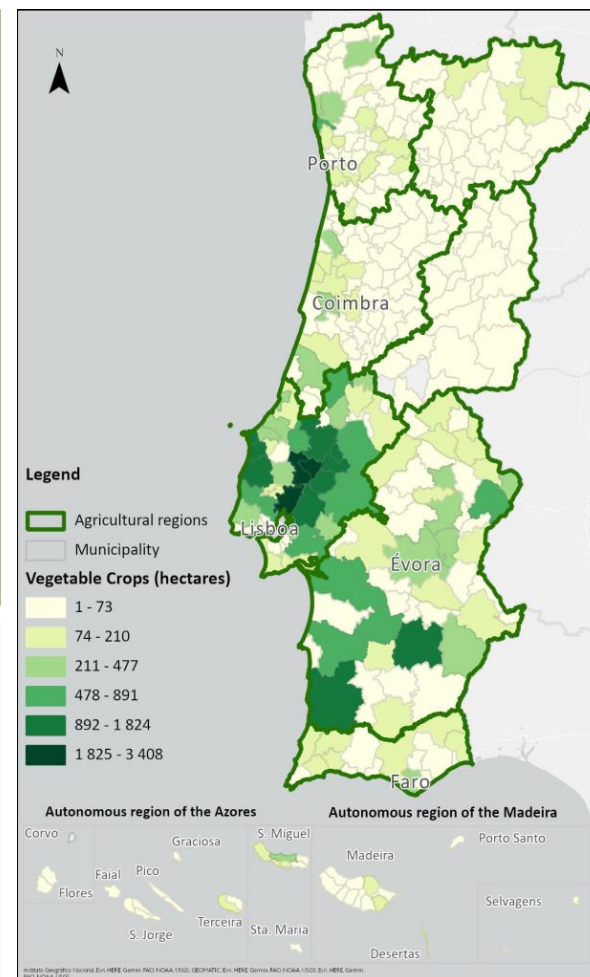
- Pace of technological innovation applied to crop.
- Greater added value in industrial products.



Onion Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Onion Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Garlic

Technical Data

Area (ha)	567
Average Area (ha/producer)	N/A
Production Cycle (months)	Oct - Jul

Performance Data

Yield (t/ha)	8 - 12
Price (€/kg)	0,90 – 1,15
Revenue (€/ha)	7 200 – 13 800

Other Data

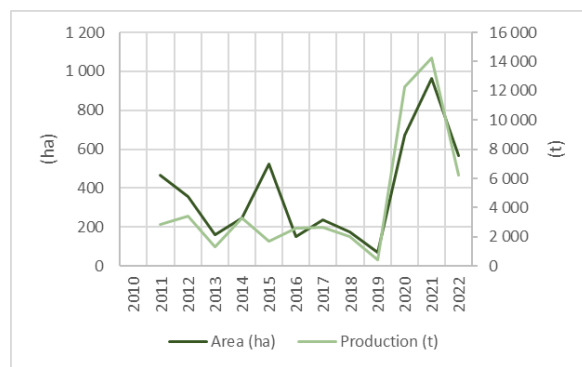
Water need (m ³ /ha)	6 500 – 7 500
Soil type	Loamy - Sandy
Self-sufficiency (%)	N/A

Recent Development

- Growing production area in recent years, largely driven by production contracts with Spanish operators.
- Little integration with industry and the need for conservation.
- Progressively being carried out in some larger units in Alentejo and Ribatejo.
- Good integration into rotations.
- Capacity for conservation and integration with the industry.
- Creation of scale even in the fresh destination.

Outlook

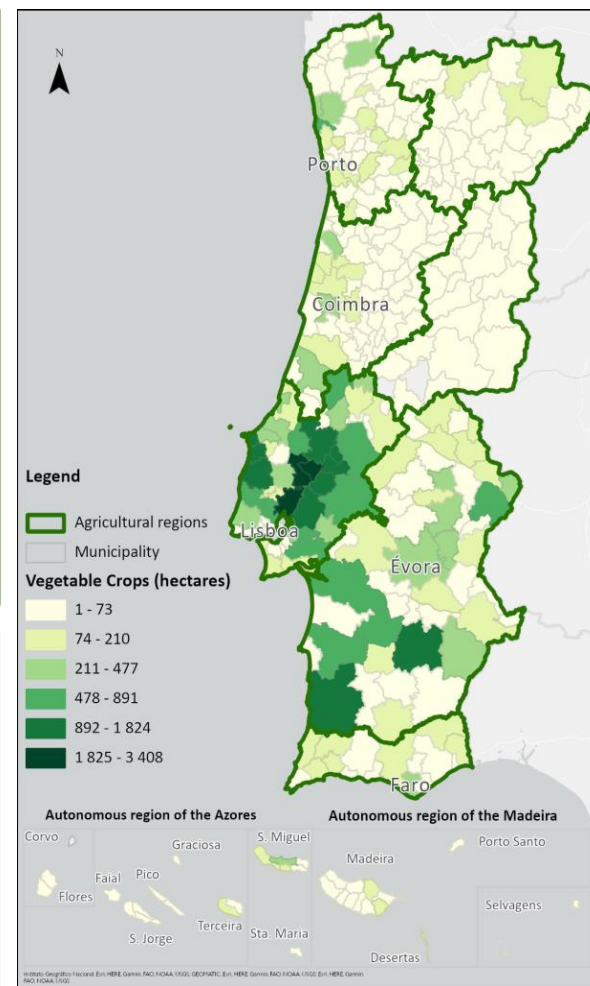
- Pace of technological innovation applied to culture.
- Greater added value in industrial products.
- Possibility of industrial innovation and better valorisation of production.



Garlic Area (ha) and Production (t) in Portugal
(Source: INE, 2023)



Garlic Production, in volume, per agricultural region (%)
(Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Pumpkin

Technical Data

Area (ha)	4 033
Average Area (ha/producer)	N/A
Production Cycle (months)	Apr - Sept

Performance Data

Yield (t/ha)	20 - 50
Price (€/kg)	0,20 – 0,35
Revenue (€/ha)	4 000 – 17 500

Other Data

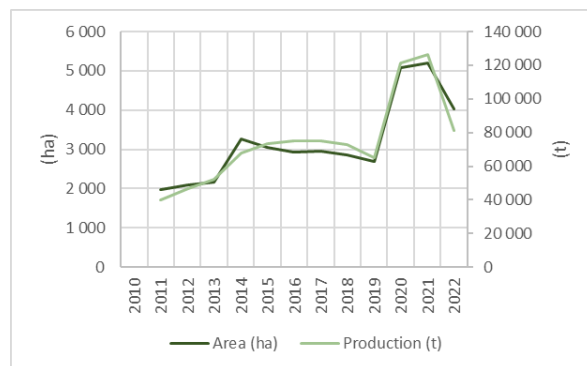
Water need (m ³ /ha)	4 500 – 5 500
Soil type	Loamy – Loamy-Sandy
Self-sufficiency (%)	N/A

Recent Development

- There has been significant growth in the last decade.
- The crop has moved away from small-scale production and is now very much a market-orientated activity with an important export component.
- The western region concentrates the largest production area.
- Growing occupation of areas in horticultural-industrial rotations.
- Integration with other irrigated horticultural and industrial crops.

Outlook

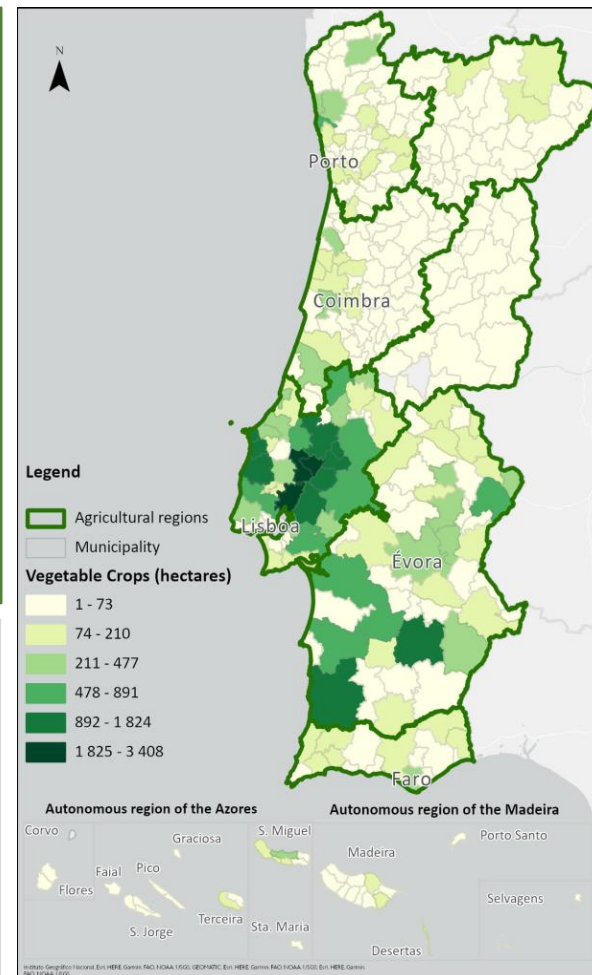
- Organic cultivation.
- Integration into rotations.
- Integration with industry.
- Export growth.
- Opportunity for operators to grow.



Pumpkin Area (ha) and Production (t) in Portugal (Source: INE, 2023)



Pumpkin Production, in volume, per agricultural region (%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha) (Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Fresh Tomato

Technical Data

Area (ha)	1 392
Average Area (ha/producer)	N/A
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	100 - 200
Price (€/kg)	2,00 – 5,00
Revenue (€/ha)	200 000 – 1 000 000

Other Data

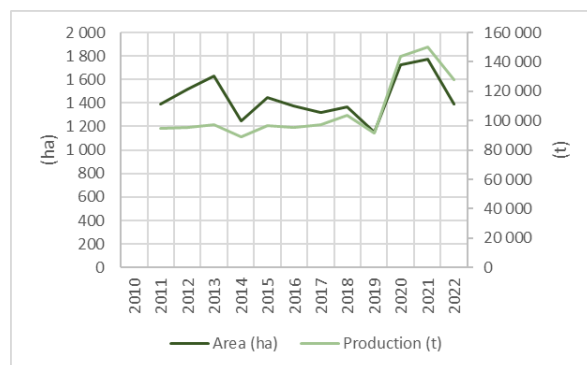
Water need (m ³ /ha)	5 000 – 8 000
Soil type	Loamy – Clay
Self-sufficiency (%)	N/A

Recent Development

- Over the last decade, despite fluctuations, it can be said that the area has remained relatively constant, with an improvement in productivity.
- There have been advancements in the production technologies used, associated with investments made by large groups.
- Production, like other horticultural crops, is concentrated more in the coastal regions of the country.

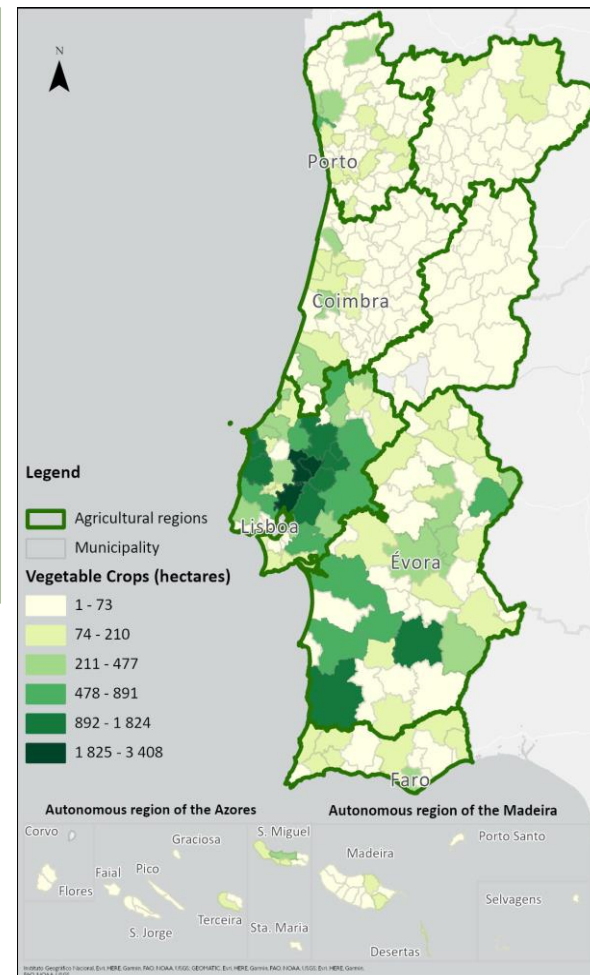
Outlook

- No significant changes are anticipated in the sector.
- Export growth.
- Opportunity for operators to grow.



NA

Fresh Tomato Production, in volume, per agricultural region (%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha) (Source: INE 2019)¹

Fresh Tomato Area (ha) and Production (t) in Portugal (Source: INE, 2023)

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Lettuce

Technical Data

Area (ha)	2 309
Average Area (ha/producer)	N/A
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	20 - 40
Price (€/kg)	0,45 – 1,30
Revenue (€/ha)	9 000 – 52 000

Other Data

Water need (m ³ /ha)	3 000 – 6 000
Soil type	Loamy – Loamy-Sandy
Self-sufficiency (%)	N/A

Recent Development

- In the last decade, both the area and production volume have experienced a slight reduction.
- Production, like other horticultural crops, is concentrated more along the country's coastline.

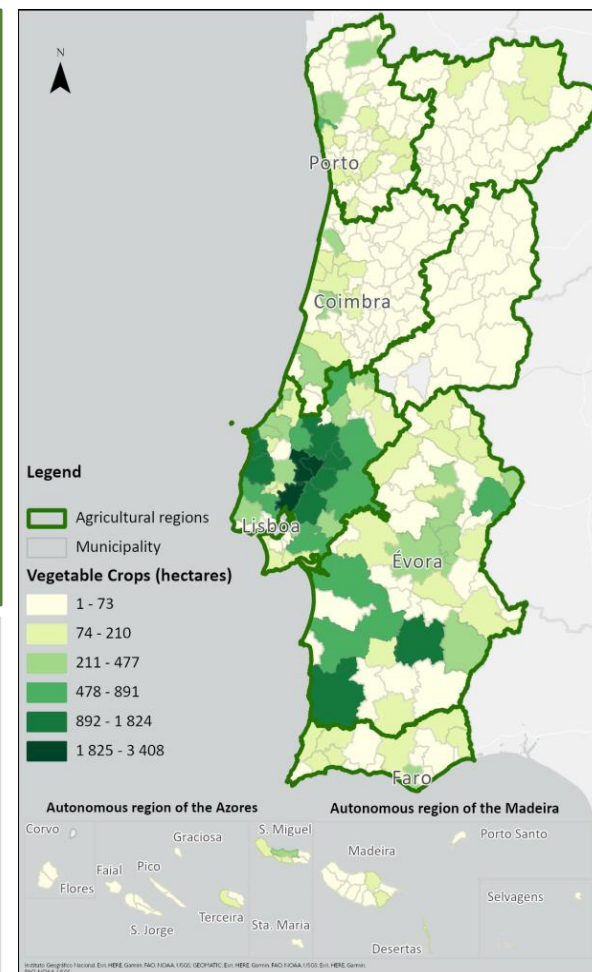
Outlook

- No significant changes are anticipated in the sector, with expectations of production stabilizing



Lettuce Area (ha) and Production (t) in Portugal (Source: INE, 2023)

Lettuce Production, in volume, per agricultural region (%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha) (Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Other Vegetables

Technical Data

Area (ha)	7 492
Average Area (ha/producer)	N/A
Production Cycle (months)	All year

Performance Data

Yield (t/ha)	20 - 40
Price (€/kg)	0,45 – 1,30
Revenue (€/ha)	9 000 – 52 000

Other Data

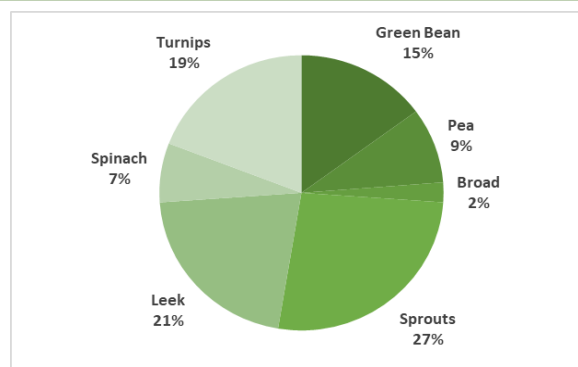
Water need (m ³ /ha)	3 000 – 6 000
Soil type	Loamy – Loamy-Sandy
Self-sufficiency (%)	N/A

Recent Development

- There are also other horticultural crops of some importance, namely Green Beans, Peas, Broad Beans, Turnip Greens, Spinach, and Turnips, which have remained relatively stable over the last decade, despite fluctuations in some years.
- Currently, production is concentrated more in coastal areas and regions with water availability.

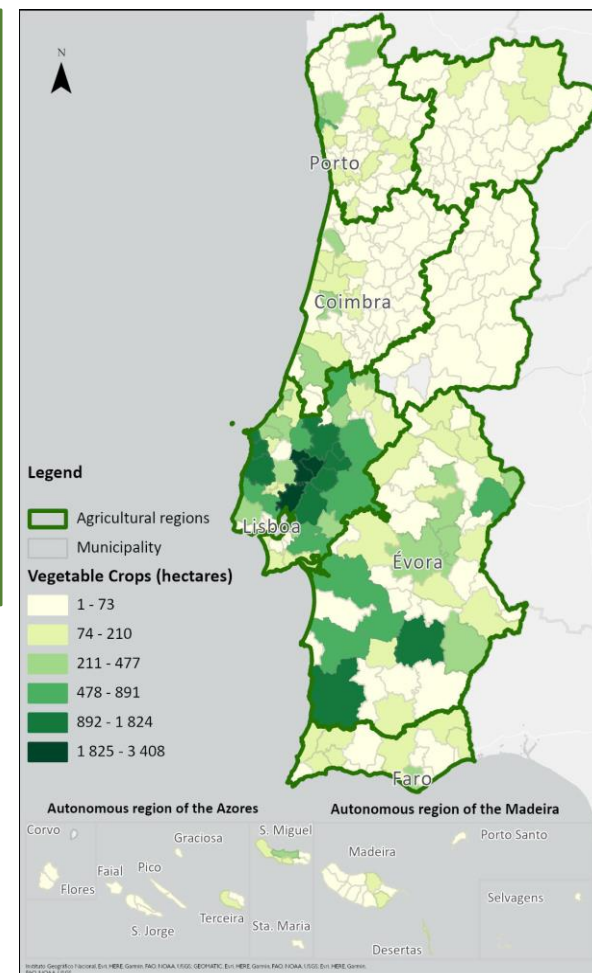
Outlook

- It is expected that the sector will remain relatively stable, with the possibility of some horticultural crops becoming more important while others lose importance.



Other Vegetables Area (ha) and Production (t) in Portugal
(Source: INE, 2023)

Other Vegetables Production, in volume, per agricultural region
(%) (Source: INE, 2023)



Vegetables area, per municipality, in 2019 (ha)
(Source: INE 2019)¹

1) Map concerns all vegetables, since regionalised data on this crop is not available

4.1. Figures and Outlook – Flowers & Ornamental Plants

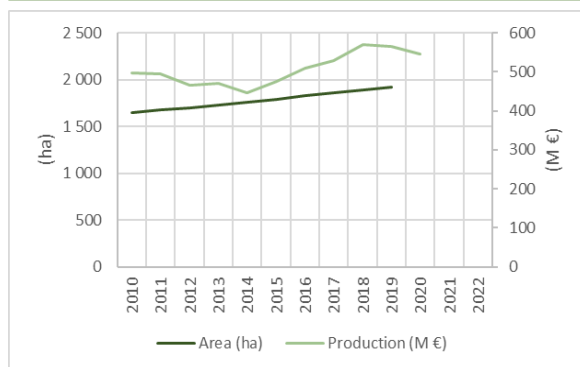
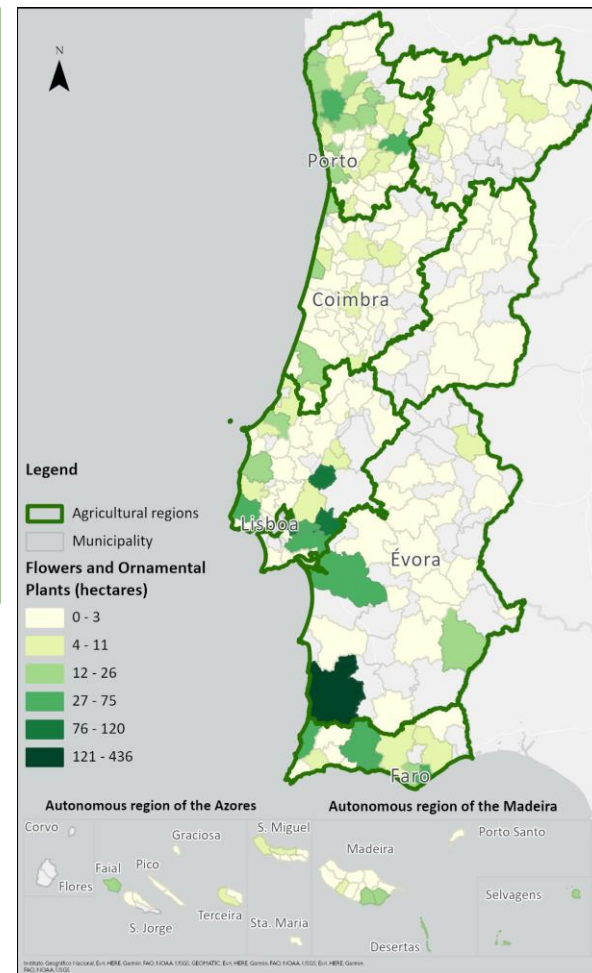
Technical Data		Performance Data		Other Data	
Area (ha)	1 922	Yield (t/ha)	Variable	Water need (m ³ /ha)	3 000 – 5 000
Average Area (ha/producer)	1,36	Price (€/kg)	Variable	Soil type	N/A
Production Cycle (months)	All year	Revenue (€/ha)	200 000 – 600 000	Self-sufficiency (%)	94,0

Recent Development

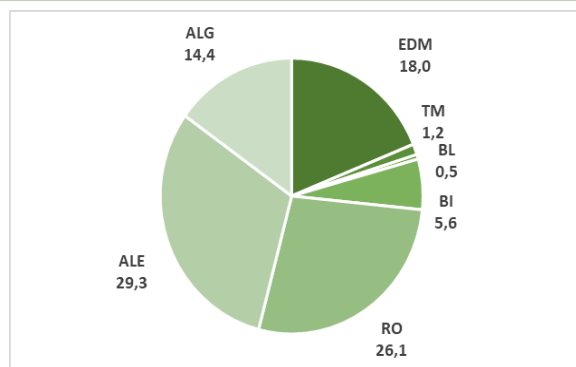
- In the last decade, there has been a positive evolution in both area and production, although the growth has been slow.
- This growth is primarily attributed to the expansion of existing businesses, with few new companies entering the market.
- The sector faces a high dependency on labor, and there is an increasing challenge in meeting this demand.

Outlook

- Similar trends to those of the last decade are expected to continue.
- Labor shortages are expected to become increasingly evident
- Potential for innovation with the need for adopting new production technologies.



Flowers & Ornamental Plants Area (ha) and Production (M €) in Portugal (Source: INE, 2023)



Flowers & Ornamental Plants Production, in area, per agricultural region (%) (Source: INE, 2023)

Flowers & Ornamental Plants, per municipality, in 2019 (ha) (Source: INE 2019)



5. MAIN VALUE CHAIN CHARACTERISTICS

5. Main Value-chain Characteristics

Downstream from production, it is important to describe the main aspects of each of the more important Value-chains, by type. In that sense, the crops analyzed previously are grouped into the following Value-chains:

- Olive oil;
- Wine;
- Nut crops;
- Flowers;

- Berries
- Vegetables;
- Fresh Fruits.



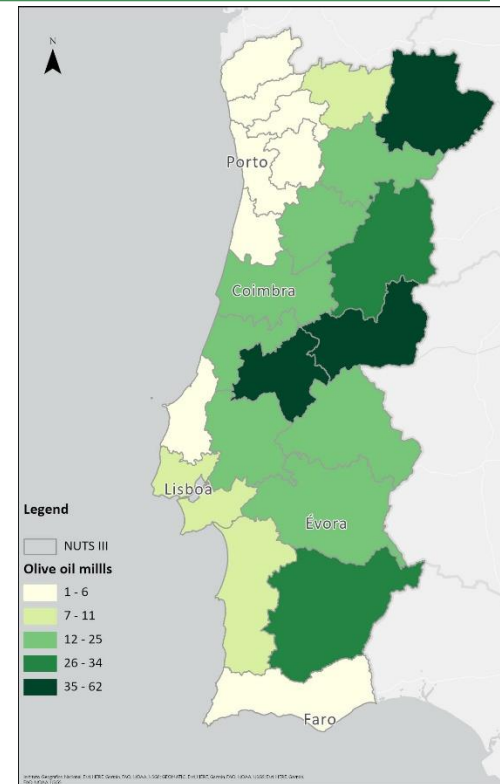
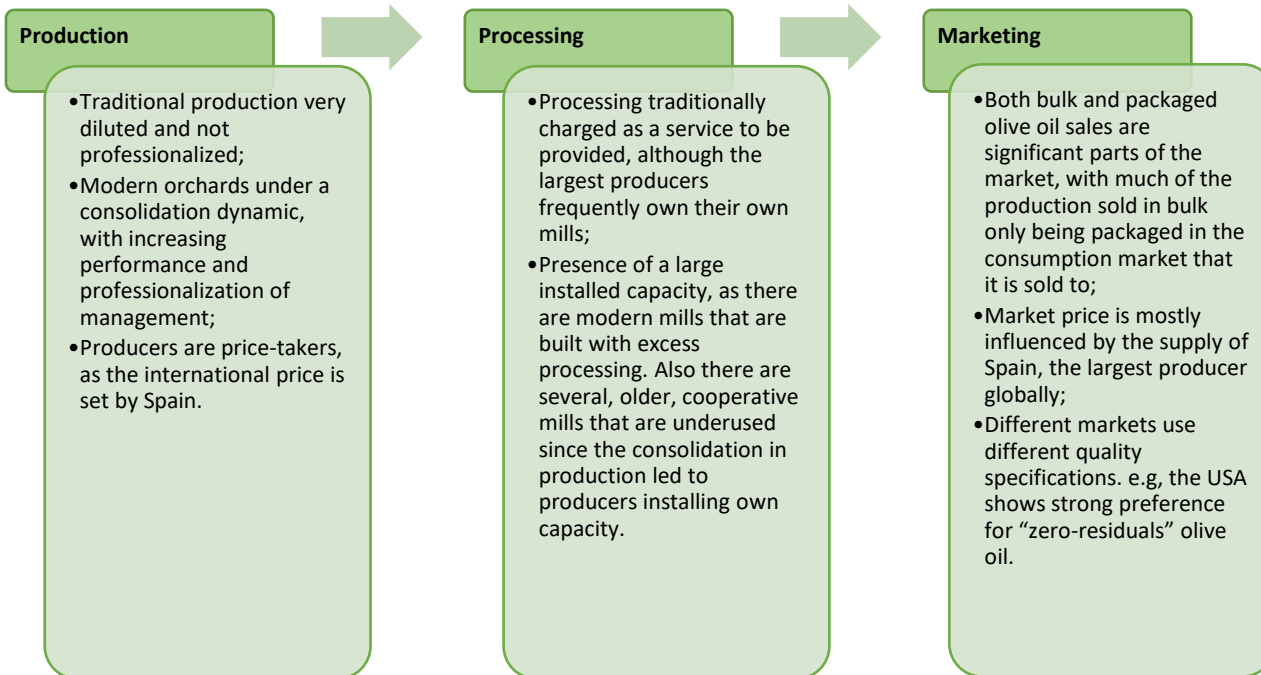
Treated together, as the Fresh Fruits and Annual Horticulture Value-chain, due to the form in which national statistics are presented.

Grouped in this fashion, the crops here studied will now be observed in their journey from the farm gate to the consumer. This description will attempt to provide the best available information regarding the context, processes and other conditions that are more relevant for each value-chain.

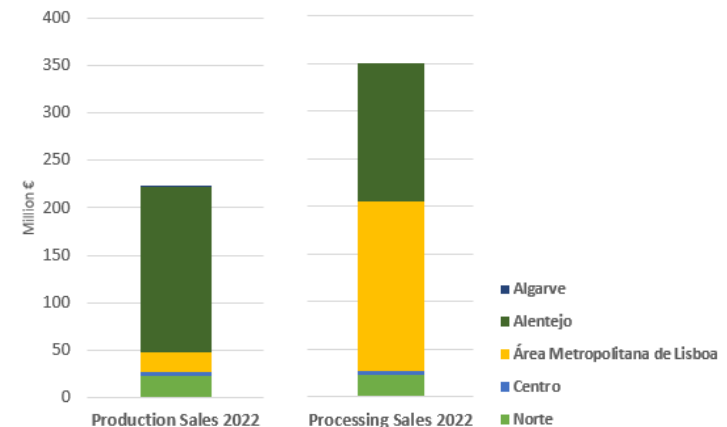
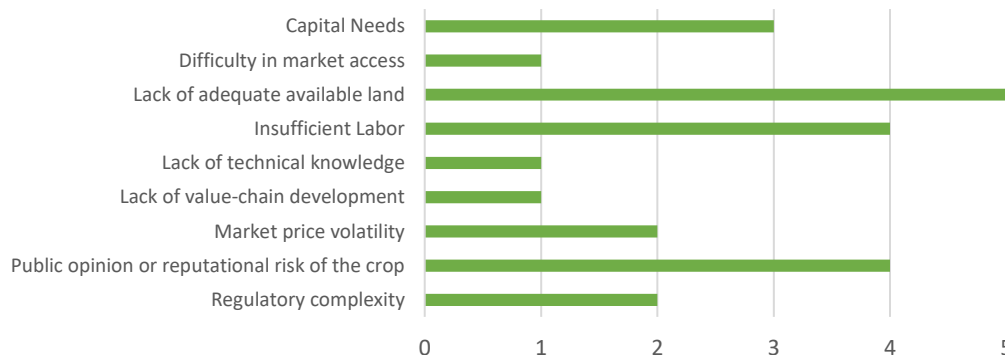
Main hurdles, existing capacity and location of stakeholders will be described to the degree of the finest information available.

An analysis of the characteristics of greenhouse and polytunnel production, as well as of production organization in Portugal is also presented.

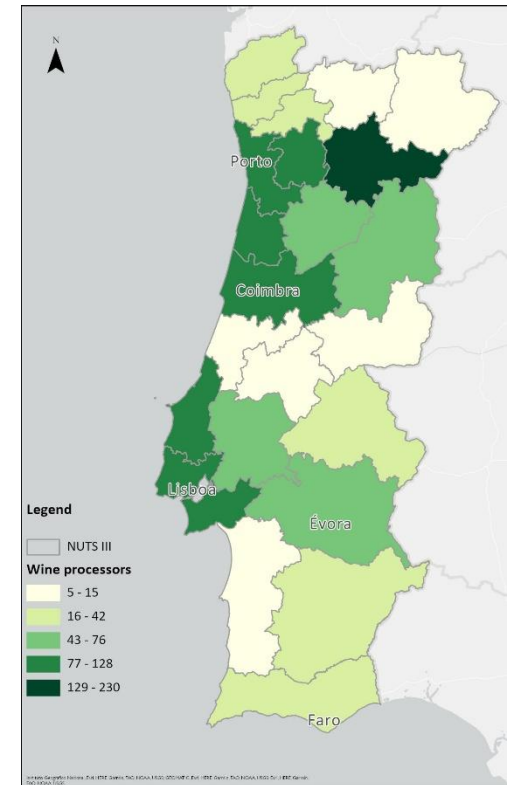
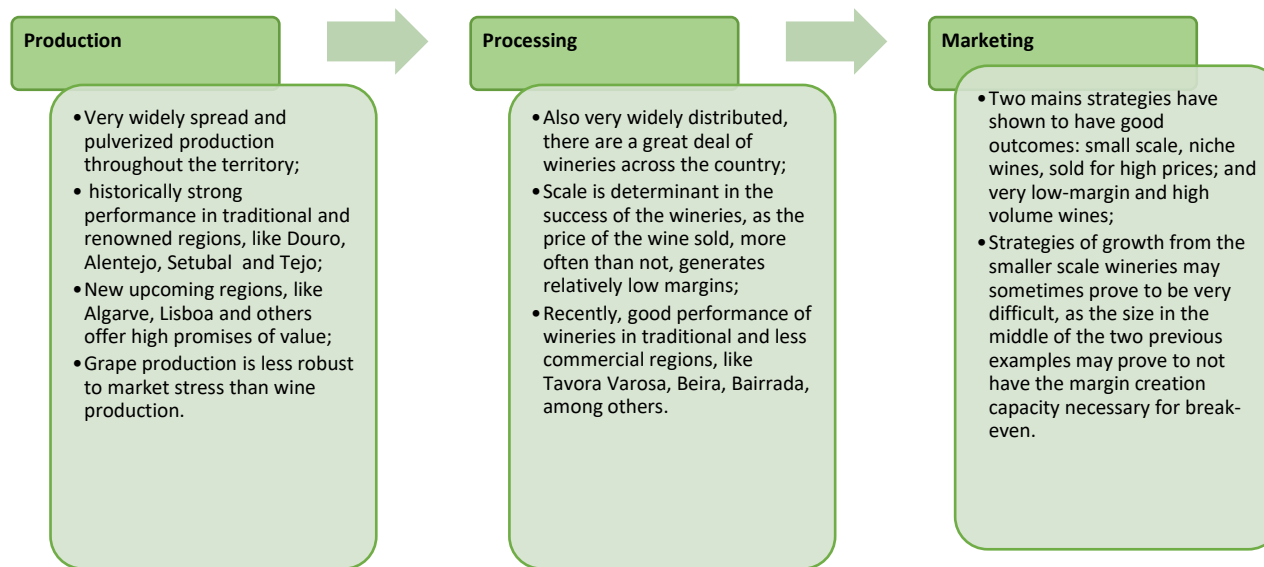
5.1. The Olive Oil Value-chain



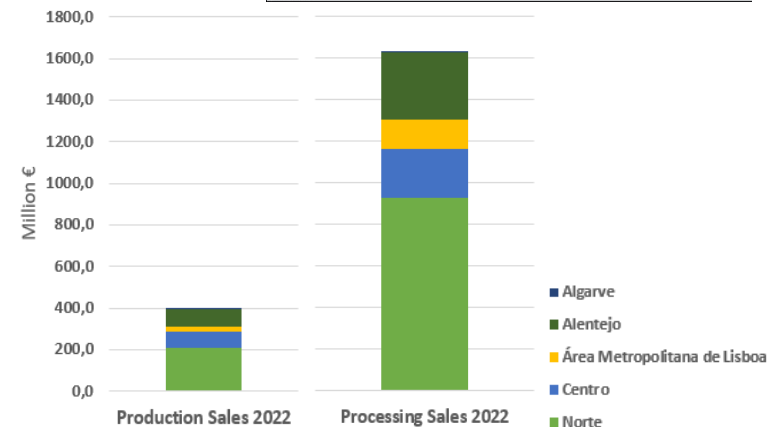
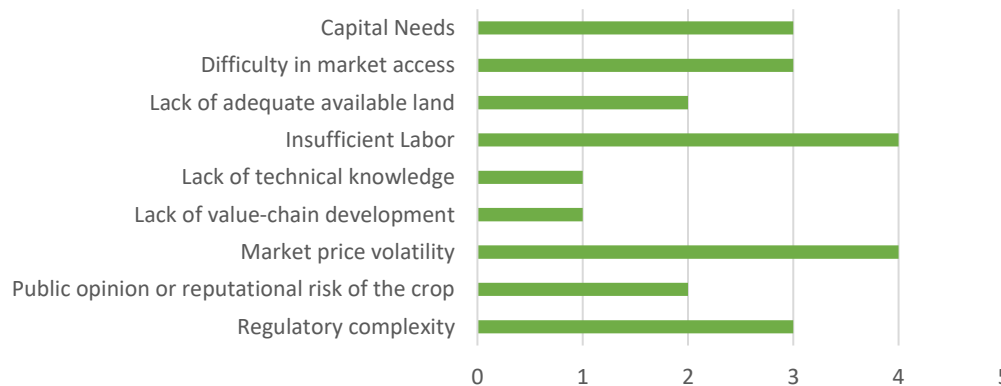
Severity of the main barriers to entry - Olive Oil Value-chain



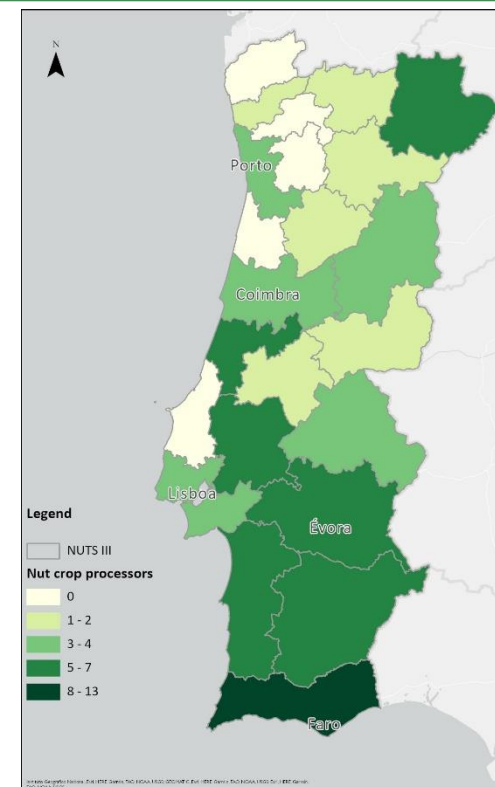
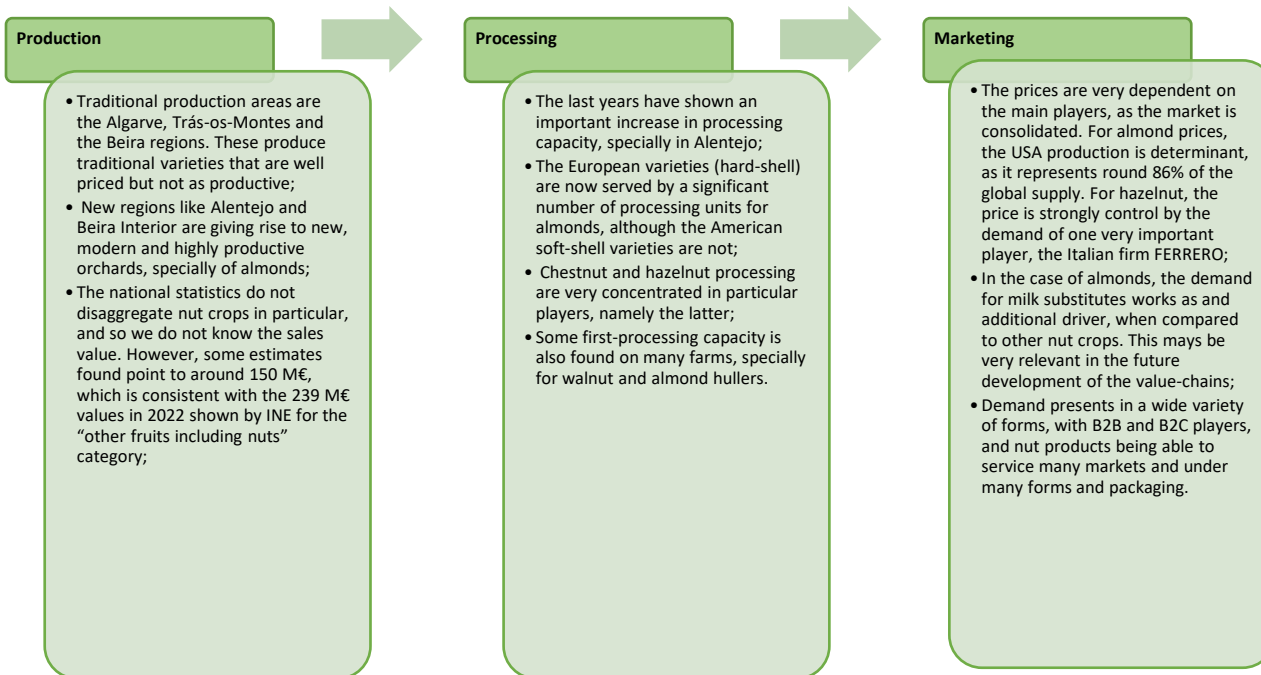
5.2. The Wine Value-chain



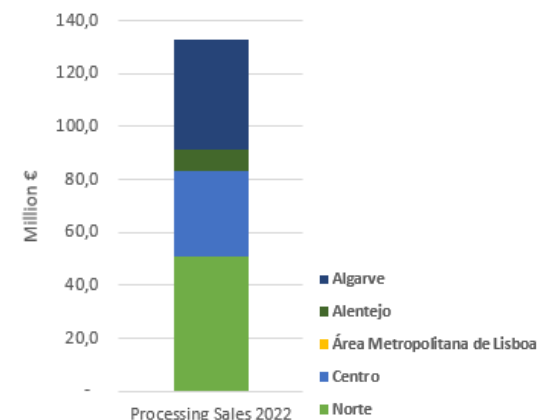
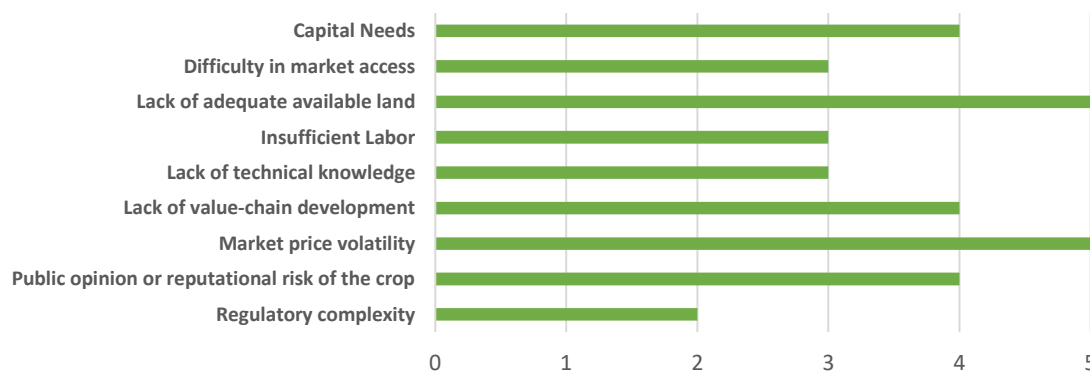
Severity of the main barriers to entry - Wine Value-chain



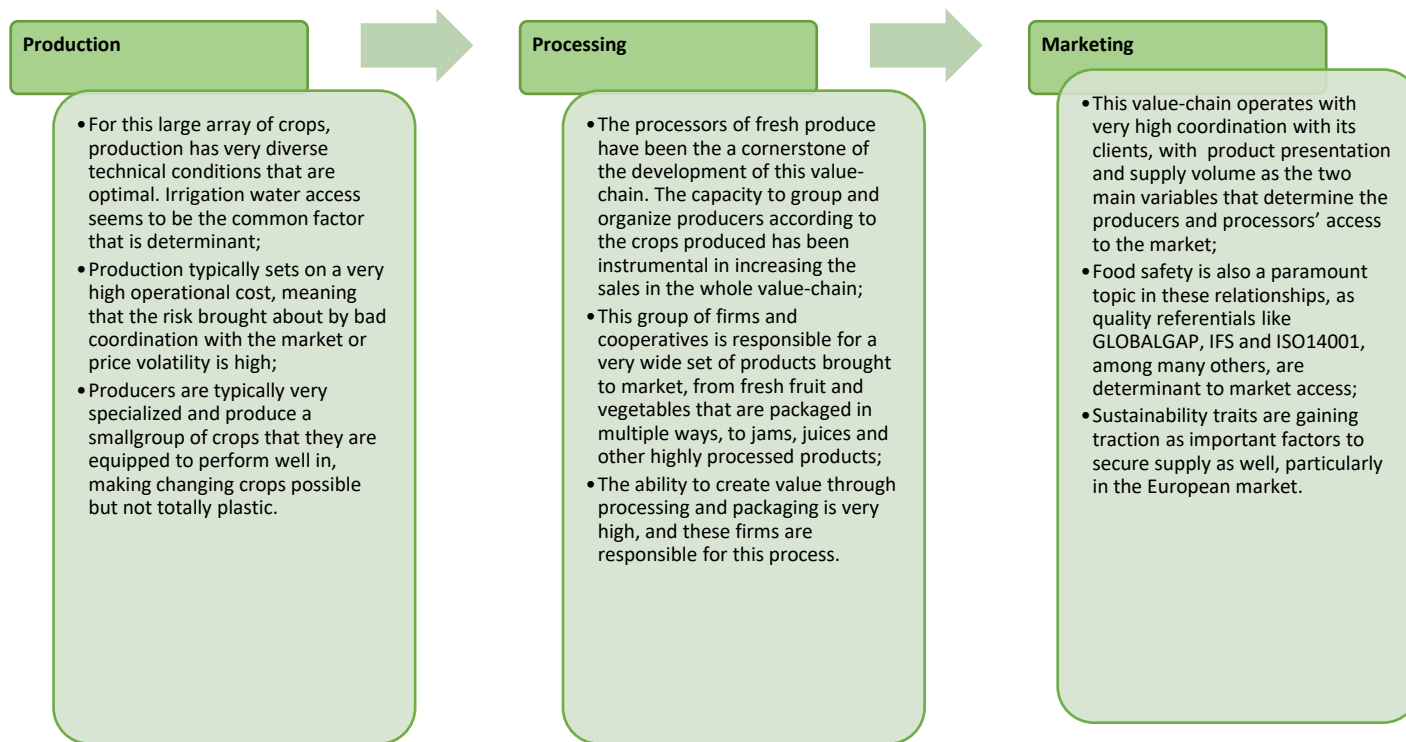
5.3. The Nut Value-chain



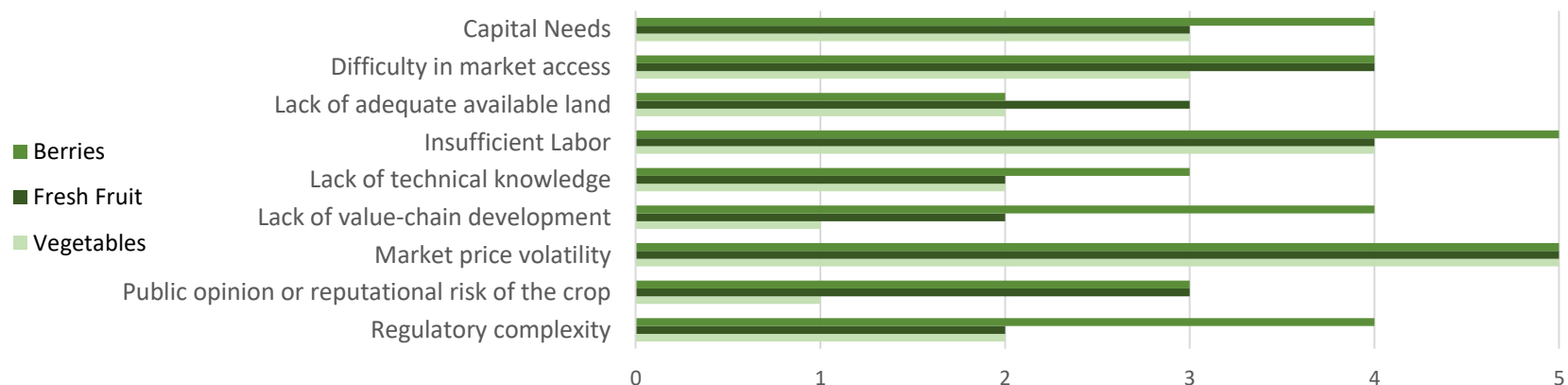
Severity of the main barriers to entry - Nut Crops Value-chain



5.4. The Fresh Fruits and Annual Horticulture Value-chain

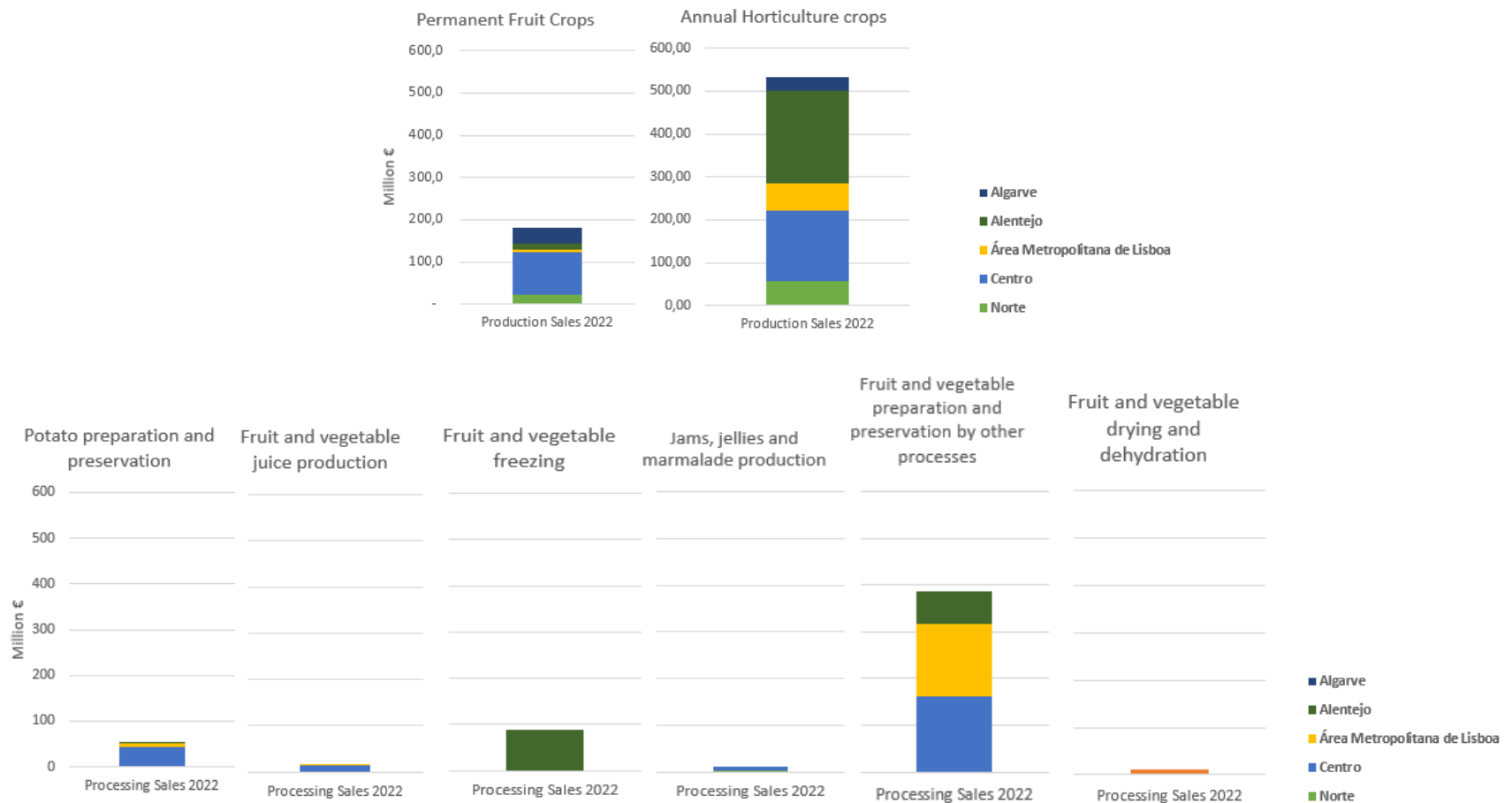


Severity of the main barriers to entry - Fresh Fruit and Annual Horticulture Value-chain

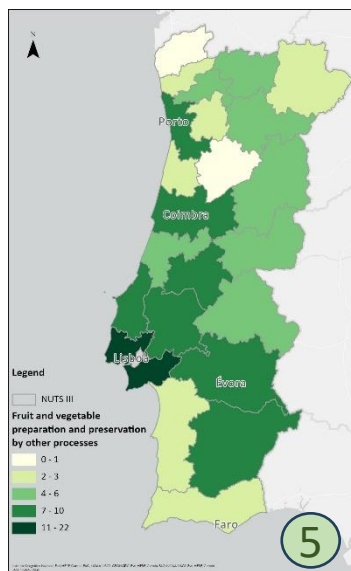
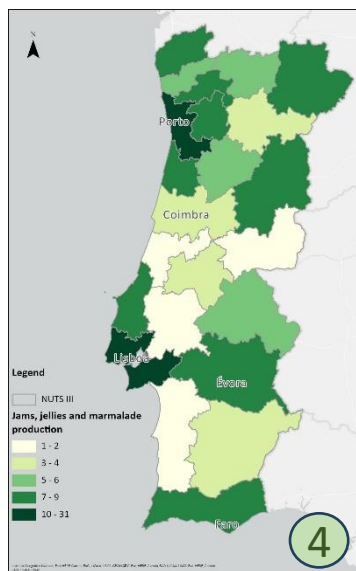
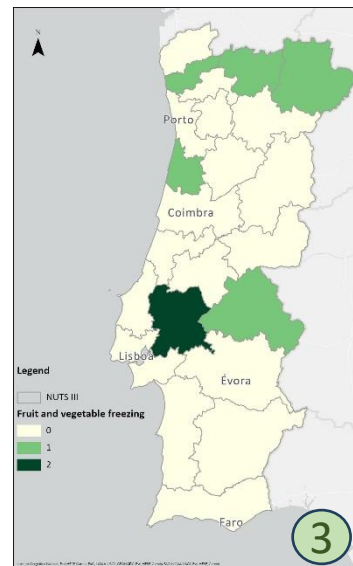
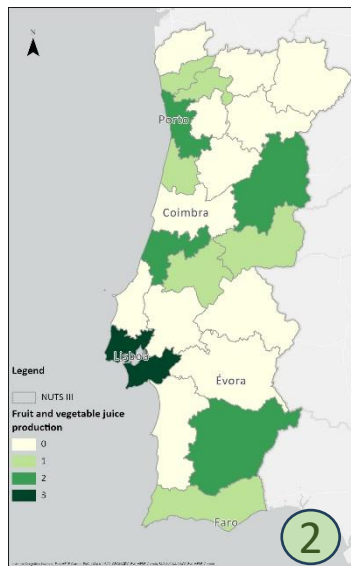
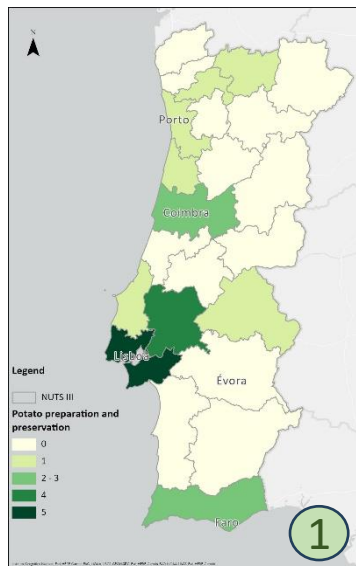


5.4. The Fresh Fruits and Annual Horticulture Value-chain

- Sales volume for the production stage, 2022: 716,3 M€
- Sales Volume for the processing stage, 2022: 563,6 M€

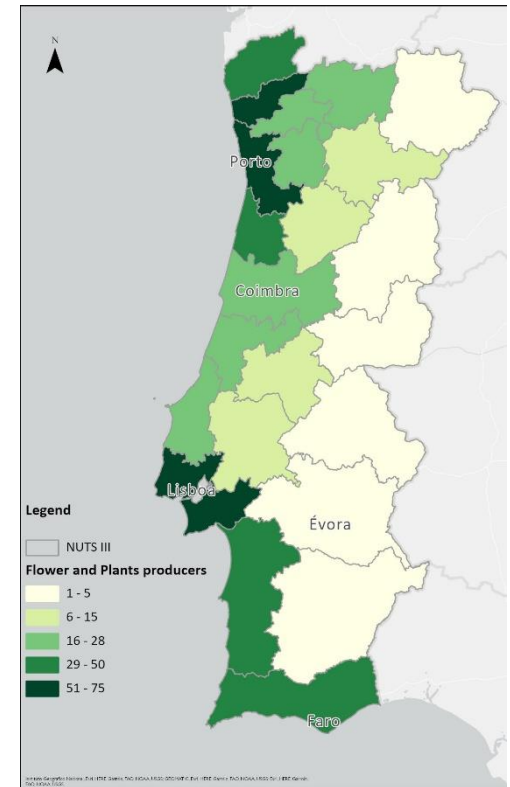
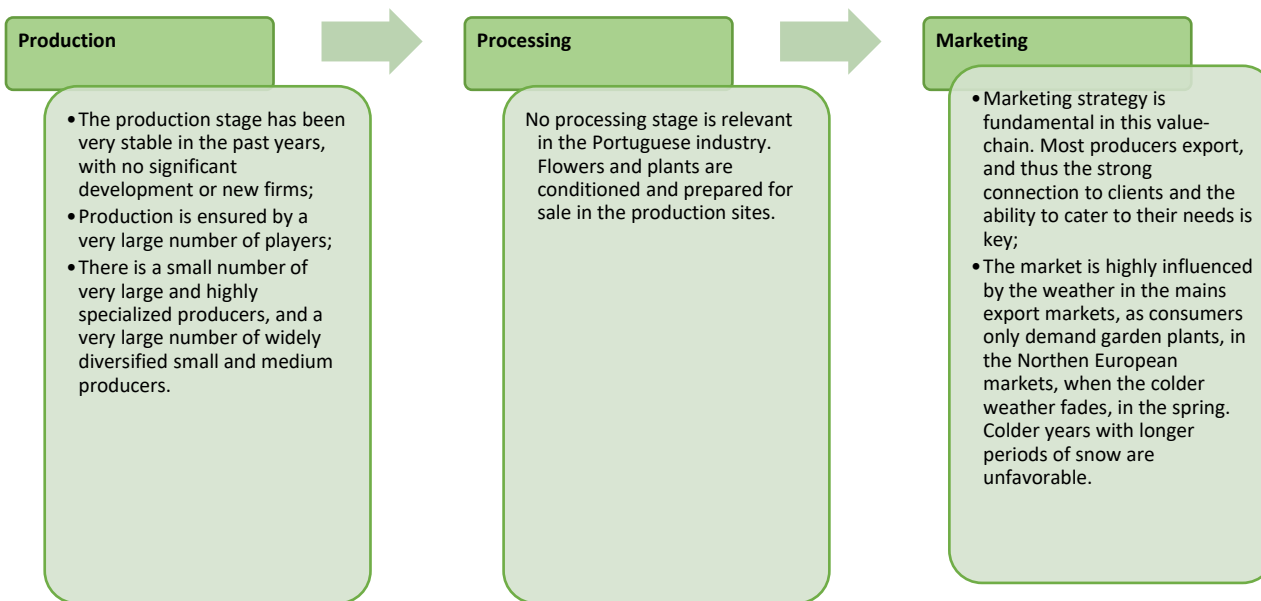


5.4. The Fresh Fruits and Annual Horticulture Value-chain

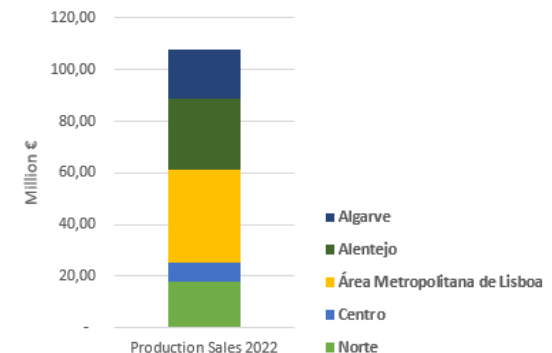
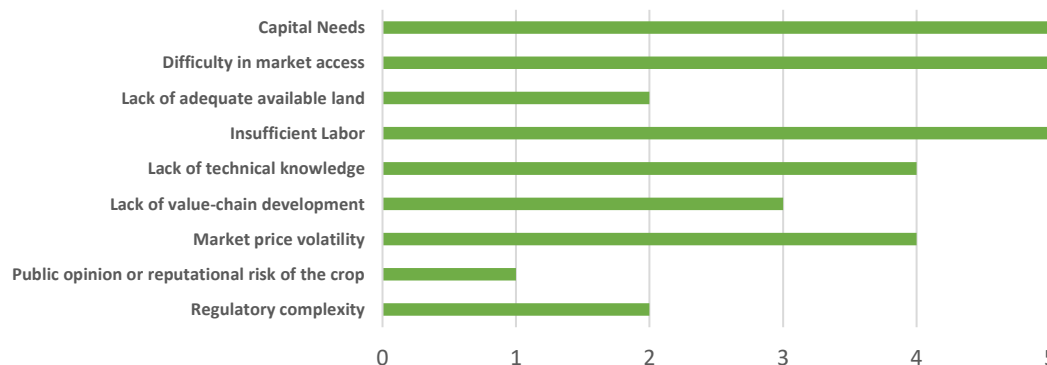


1. Potato preparation and preservation
2. Fruit and vegetable juice production
3. Fruit and vegetable freezing
4. Jams, jellies and marmalade production
5. Fruit and vegetable preparation and preservation by other processes
6. Fruit and vegetable drying and dehydration

5.5. The Flowers Value-chain



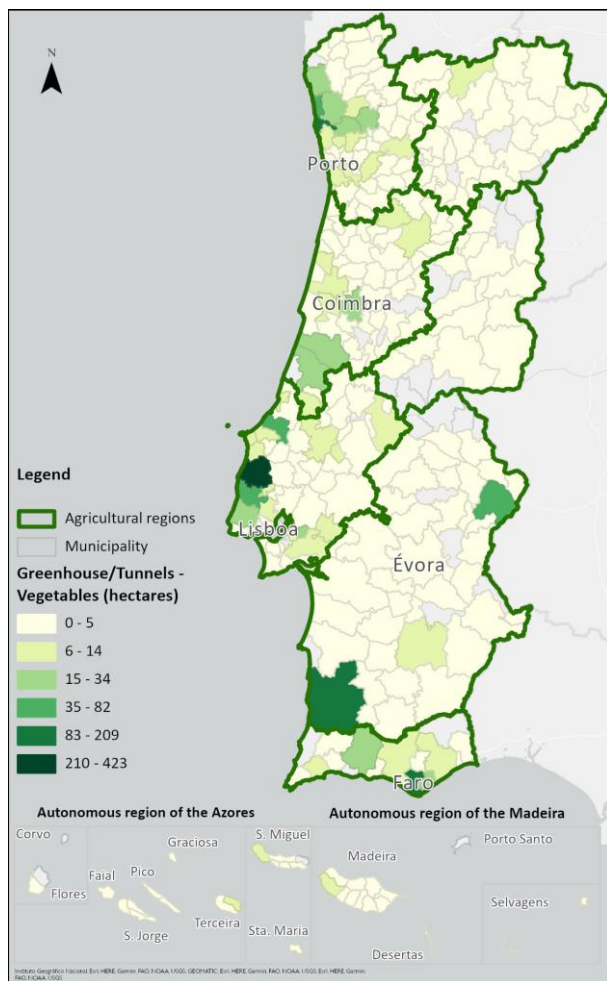
Severity of the main barriers to entry - Flowers Value-chain



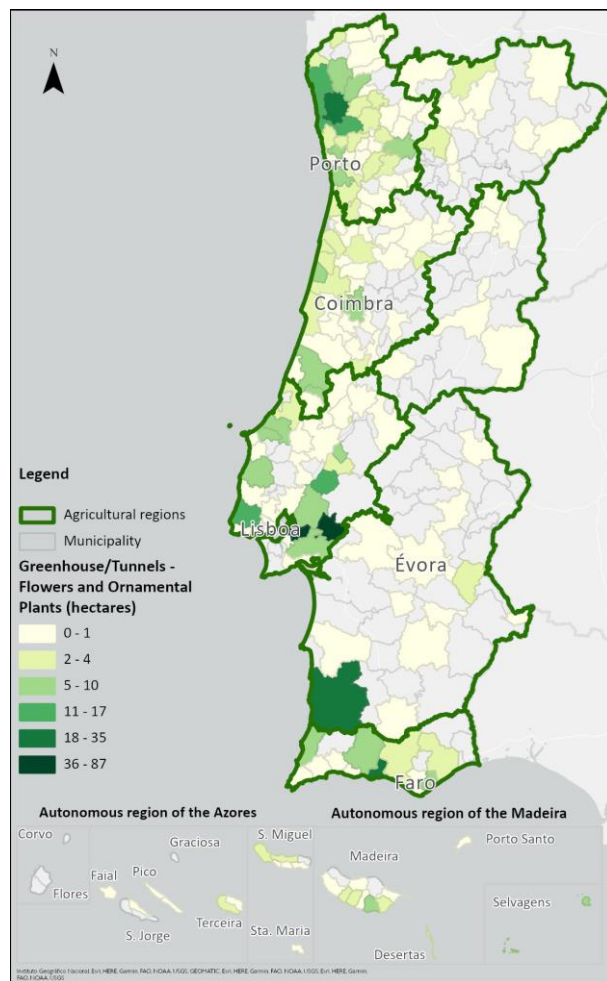
5.6. The Greenhouse/Polytunnels Production System

Characteristics	Advantages	Disadvantages
• The main crops produced in greenhouses are vegetables, flowers, and ornamental plants, as well as berries. • In 2019, there were 1,927 hectares of greenhouses/polytunnels for vegetables and 610 hectares for flowers and ornamental plants. Statistics on this sector in Portugal are still underdeveloped. • Greenhouse cultivation is mostly concentrated in the coastal regions of the country. • There are various types of greenhouses, ranging from simple plastic structures to glass structures equipped with advanced technologies such as ventilation, heating, humidity control, and hydroponics. • The production technologies vary widely, associated with different levels of investment and yield. • There are also pilot projects for other crops, including fresh fruits like cherries	• Greenhouse cultivation allows for year-round production, anticipating and extending harvest seasons. • It helps mitigate risks associated with the climate, providing a controlled environment for crops. • This systems are particularly suitable for high-value-added crops • It enables harvesting during periods of better prices, addressing the shortage of supply in certain seasons, especially in markets with higher prices.	• High investment costs • High demand for labor, which has been a challenge and is being addressed through technology and foreign labor, are key aspects of greenhouse cultivation. • Difficulties in obtaining licenses and authorizations • A highly competitive market where significant risks are involved if production is not closely coordinated with customers.
Plastic vs Glass		
• Lower CAPEX • Adequate for lower temperatures inside the greenhouse • Higher economies of scale possible • Lower risk of breakage • Lower maintenance cost		• Higher optimization for very light sensitive crops (ex: tomato, strawberry...) • Adequate for higher temperatures inside the greenhouse • Higher durability • Better energy efficiency

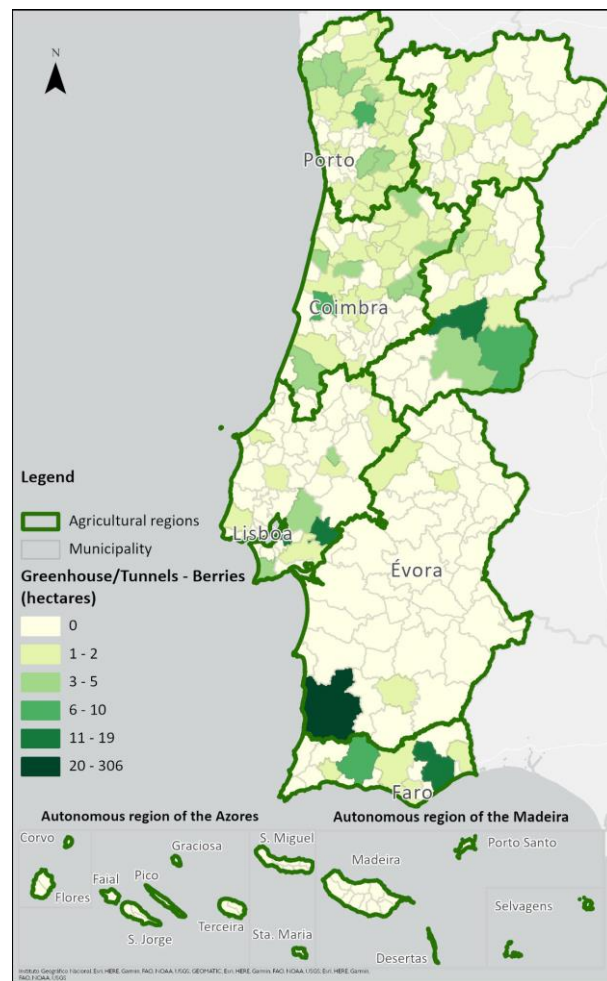
5.6. The Greenhouse/Polytunnels Production System



Vegetables Greenhouse/Polytunnels Area (ha), in 2019, per municipality (Source: INE, 2023)



Flowers and Ornamental Plants Greenhouse/Polytunnels Area (ha), in 2019, per municipality (Source: INE, 2023)



Berries Greenhouse/Polytunnels Area (ha), in 2021, per municipality (Source: IFAP, 2023)

5.7 Knowledge Institutions & Universities

For the Agriculture Sector, there are some important institutions, shown in the following table:

Knowledge Institution & Universities		
Name	Region	Website
Ministério da Agricultura, Florestas e Desenvolvimento Rural	National	https://www.portugal.gov.pt/pt/gc23
Direção-Geral de Agricultura e Desenvolvimento Rural (DGADR)	National	https://www.dgadr.gov.pt/
Gabinete de Planeamento, Políticas e Administração Geral (GPP)	National	www.gpp.pt
Direção-Geral de Alimentação e Veterinária (DGAV)	National	www.dgav.pt
Autoridade de Gestão do Programa de Desenvolvimento Rural do Continente (PDR 2020)	National	www.pdr-2020.pt/
Instituto da Vinha e do Vinho, I.P. (IVV, I.P.)	National	www.ivv.gov.pt
Instituto Nacional de Investigação Agrária e Veterinária, I.P. (INIAV, I.P.)	National	www.iniaiv.pt
Centro de Competências para o Regadio Nacional (COTR)	National	https://www.cotr.pt/empresa/CC.php
Centro Operativo e Tecnológico Hortofrutícola Nacional - Centro de Competências (COTHN-CC)	National	https://www.cothn.pt/
Centro de Competências das Plantas Aromáticas, Medicinais e Condimentares (CCPAMC)	National	https://www.ccpam.pt/
Centro Nacional de Competências dos Frutos Secos (CNCFS)	National	http://www.wp.cncfs.pt/
Centro de Competências para o Tomate Indústria (CCTI)	National	https://www.ccti.pt/
Centro Nacional de Competências para a Inovação Tecnológica do Sector Agrofloresta (InovTechAgro)	National	https://www.inovtechagro.pt/
Centro Nacional de Competências para as Alterações Climáticas do Setor Agroflorestal (CNCACSA)	National	https://www.cncalteracoesclimaticas.pt/
Centro Nacional de Competências dos Cereais praganosos, Oleaginosas e Proteaginosas (Cerealtech)	National	https://www.cerealtech.pt/
Universidade de Lisboa - Instituto Superior de Agronomia (ISA)	Lisbon	https://www.isa.ulisboa.pt/
Universidade de Évora - Escola de Ciências e Tecnologia	Évora	https://www.ect.uevora.pt/
Universidade do Algarve - Faculdade de Ciências e Tecnologia	Algarve	https://fct.ualg.pt/
Universidade dos Açores - Faculdade de Ciências Agrárias e do Ambiente	Azores	https://fcaa.uac.pt/
Universidade do Porto - Faculdade de Ciências	Porto	https://sigarra.up.pt/fcup/pt/web_page_inicial
Universidade de Trás-os-Montes e Alto Douro - Escola de Ciências Agrárias e Veterinárias	Vila Real	https://www.utad.pt/ecav/
Instituto Politécnico de Beja - Escola Superior Agrária	Beja	https://www.ipbeja.pt/UnidadesOrganicas/ESA/Paginas/default.aspx
Instituto Politécnico de Castelo Branco - Escola Superior Agrária de Castelo Branco	Castelo Branco	https://www.ipcb.pt/esacb/escola-superior-agraria
Instituto Politécnico de Portalegre - Escola Superior Agrária de Elvas	Elvas	https://esae.ipportalegre.pt/pt/
Instituto Politécnico de Santarém - Escola Superior Agrária de Santarém	Santarém	https://www.ipsantarem.pt/escola-superior-agraria-de-santarem/
Instituto Politécnico de Viana do Castelo - Escola Superior Agrária	Ponte de Lima	https://www.ipvc.pt/esa/
Instituto Politécnico de Coimbra - Escola Superior Agrária de Coimbra	Coimbra	https://www.esac.pt/
Instituto Politécnico de Viseu - Escola Superior Agrária de Viseu	Viseu	http://www.esav.ipv.pt/index.php/
Instituto Politécnico de Bragança - Escola Superior Agrária de Bragança	Bragança	https://esa.ipb.pt/

5.8 Main Players

For each of the sectors, some of the most important players, on the production stage, are shown in the following tables.

Vegetables, roots and tubers Production		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
VITACRESS PORTUGAL, S.A.	Boavista Dos Pinheiros	Ribatejo e Oeste
HORTIPOR - EXPORT, LDA	Pinheiro Manso	Ribatejo e Oeste
G.O.BERRYS, LDA	Alcaria	Alentejo
PLANICIEVERDE - SOCIEDADE AGRÍCOLA, LDA	Casais da Própria	Ribatejo e Oeste
VARANDAS DE SOUSA, S.A.	Benlhevai	Alentejo
FRUPOR - SOCIEDADE AGRO INDUSTRIAL, S.A.	Brejão	Alentejo
CAMPO SOL, LDA	Alagoachos	Alentejo
HORTÍCOLAS SATURNINO, LDA	Alcochete	Península de Setúbal
FRESTIA PORTUGAL, SUCURSAL EM PORTUGAL	Malavado	Alentejo
SOCIEDADE AGRO-PECUÁRIA DO VALE DA ADEGA, S.A.	Azambuja	Ribatejo e Oeste
Flowers and plants		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
BUIJNINK INTERNACIONAL, UNIPESOAL, LDA	Fataca	Alentejo
UNIKONSTRÓI, LDA	Algueirão	Área Metropolitana de Lisboa
JACOBUS VAN SCHIE, UNIPESOAL, LDA	Santo Isidro de Pegões	Península de Setúbal
SALM PORTUGAL, SOCIEDADE UNIPESOAL, LDA	Marinhais	Ribatejo e Oeste
VIPLANT - VIVEIROS DO ALGARVE, LDA	Oeiras	Área Metropolitana de Lisboa
PLANTA LIVRE - PRODUÇÃO E COMÉRCIO DE PLANTAS ORNAMENTAIS, LDA	Algueirão	Área Metropolitana de Lisboa
FLORES PENDULARES, LDA	Murtais	Ribatejo e Oeste
VIVEIROS MONTEROSA, LDA	Cabeça	Península de Setúbal
FLORINEVE - PRODUÇÃO E COMÉRCIO DE FLORES, LDA	Samouco	Península de Setúbal
VIVEIROS VITOR LOURENÇO, LDA	Algueirão	Área Metropolitana de Lisboa
Wine grapes		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
BACALHÔA - VINHOS DE PORTUGAL, S.A.	Azeitão	Ribatejo e Oeste
COMPANHIA GERAL DA AGRICULTURA DAS VINHAS DO ALTO DOURO - REAL COMPANHIA VELHA, S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
VITIVINICOLA DO BONFIM, S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
CONDADO PORTUGALENSE - SOCIEDADE DE VINHOS, LDA	Corredouras	Ribatejo e Oeste
ALIANÇA - VINHOS DE PORTUGAL, S.A.	Sangalhos	Beira Litoral
SOCIEDADE AGRÍCOLA QUINTA DO CONDE, S.A.	Aldeia Galega	Ribatejo e Oeste
NIEPOORT (VINHOS), S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
SOCIEDADE AGRÍCOLA DE NOGUEIRA, LDA	Pinhão	Trás-os-Montes e Alto Douro
D. F. J. VINHOS, S.A.	Vila chã de Ourique	Ribatejo e Oeste
VIDIGAL WINES, S.A.	Cortes	Ribatejo e Oeste

5.8 Main Players

For each of the sectors, some of the most important players, on the production stage, are shown in the following tables.

Tropical and Subtropical fruits		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
FRUSOAL - FRUTAS SOTAVENTO ALGARVE, LDA	Cevadeiras	Algarve
FRUTAS TERESO - COMÉRCIO DE FRUTOS E HORTÍCOLAS, LDA	Ferrarias	Algarve
EUROPONTAL - MATERIAIS DE CONSTRUÇÃO, LDA	Faro	Algarve
MORGADINHO FARM, LDA	Tavira	Algarve
VALMARQUES - SOCIEDADE AGRÍCOLA E PECUÁRIA, LDA	Moita Vaqueira	Beira Litoral
MULTIMADE, LDA	Funchal	Madeira
SOCIEDADE AGRÍCOLA QUINTA DA MÓ DE CIMA, S.A.	Lisboa	Área Metropolitana de Lisboa
CARXOP - BARCELOS & FLORENÇA, LDA	Funchal	Madeira
ARISTIFRUTAS - COMÉRCIO DE FRUTAS, LDA	Santorum	Algarve
FMS FRESH, UNIPessoal, LDA	Faro	Algarve
Citrus		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
CACIAL - COOPERATIVA AGRÍCOLA DE CITRICULTORES DO ALGARVE, C.R.L.	Vale da Venda	Algarve
VIVID FOODS, LDA	Atalaia	Área Metropolitana de Lisboa
CELOLI - ACTIVIDADES TURÍSTICAS, LDA	Quarteira	Algarve
FRUTAS MARTINHO - SOCIEDADE AGRÍCOLA, LDA	Bernarda	Algarve
ABÍLIO ANTÓNIO JUSTO - COMÉRCIO DE FRUTAS UNIPessoal, LDA	Luz de Tavira	Algarve
FRUTAS TERESO - COMÉRCIO DE FRUTOS E HORTÍCOLAS, LDA	Ferrarias	Algarve
PARAFRUTAS - PRODUÇÃO E COMÉRCIO DE FRUTAS, LDA	Charneca do Carvalhal	Ribatejo e Oeste
FRUTALGOZ - SOCIEDADE AGRÍCOLA DO ALGOZ, LDA	Ferrarias	Algarve
MORGADINHO FARM, LDA	Tavira	Algarve
AZÁFAMA TROPICAL, LDA	Torres Vedras	Ribatejo e Oeste
Pome fruits and Stone fruits		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
CAMPOTEC IN - CONSERVAÇÃO E TRANSFORMAÇÃO DE HORTOFRUTÍCOLAS, S.A.	Zona Industrial de Casalinho	Ribatejo e Oeste
LUÍS VICENTE, S.A.	Freixo de Freitas	Beira Interior
FERREIRA DA SILVA - IMPORTAÇÃO E EXPORTAÇÃO, S.A.	Casal Vale da Murta	Beira Interior
O MELRO - FRUTAS E LEGUMES, LDA	Lisboa	Área Metropolitana de Lisboa
FRUTAREAL - COMÉRCIO DE FRUTAS, LDA	Porto	Área Metropolitana do Porto
FMB - FRUTAS E HORTÍCOLAS DO BARRIO, LDA	Bárrio	Ribatejo e Oeste
CERMOUROS - CEREJAS DE SÃO MARTINHO DE MOUROS, LDA	Rendufe	Entre Douro e Minho
ESPECIAL FRUTAS - COMÉRCIO DE FRUTAS E PRODUTOS HORTÍCOLAS, LDA	Vimeiro	Ribatejo e Oeste
FRUTUS - ESTAÇÃO FRUTEIRA DO MONTEJUNTO, C.R.L.	Sobrena	Ribatejo e Oeste
GRANFER - PRODUTORES DE FRUTAS, C.R.L.	Usseira	Ribatejo e Oeste

5.8 Main Players

For each of the sectors, some of the most important players, on the production stage, are shown in the following tables.

Nut Crops		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
DE PRADO Group	Monte Fonte Frades	Alentejo
INNOLIVA Group	Monte Carapetal	Alentejo
CASA DA FONTE-PEQUENA, S.A.	Vinhós	Trás-os-Montes e Alto Douro
HERDADE DAS AMÊNDOAS DOCES - JDLC, UNIPessoal, LDA	Évora	Alentejo
LLOPIS PORTUGAL, S.A.	Monte Xacafré	Alentejo
SOCIEDADE AGRÍCOLA HERDADE DA MANCOCA, S.A.	Ervidel	Alentejo
MIGDALO, S.A.	Ferreira do Alentejo	Alentejo
TREEMOND	Miraflores	Área Metropolitana de Lisboa
VERACRUZ	Idanha-a-nova	Beira Baixa
PRADO DE CASTRO VERDE, LDA	Monte Dos Gregórios	Alentejo
Olives		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
DE PRADO Group	Monte Fonte Frades	Alentejo
INNOLIVA Group	Monte Carapetal	Alentejo
OLIVO GESTÃO ALQ, LDA	Serpa	Alentejo
TERRAS DE AZEITE, LDA	Mina da Juliana	Alentejo
OLINORTE - PRODUÇÃO AGRÍCOLA, LDA	Monte das Mesas	Alentejo
Grupo Lagar do Vale	Serpa	Alentejo
FALCÕESTERRA - SOCIEDADE AGRÍCOLA, UNIPessoal, LDA	Beja	Alentejo
AGGRARIA Group	Monte da Oripa	Alentejo
Nutrifarms Group	Miraflores	Área Metropolitana de Lisboa
SOCIEDADE AGRÍCOLA LAGOA DA ORDEM, LDA	Rio de Moinhos	Alentejo

5.8 Main Players

For each of the sectors, some of the most important players, focused on processing, are shown in the following tables.

Potato preparation and preservation		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
MONLIZ - PRODUTOS ALIMENTARES MONDEGO E LIZ, S.A.	Alpiarça	Ribatejo e Oeste
S & A - SOCIEDADE INDUSTRIAL DE APERITIVOS, S.A.	Mourão	Alentejo
CAMPOTEC - COMERCIALIZAÇÃO E CONSULTADORIA EM HORTO-FRUTÍCOLAS, S.A.	Casalinhos de Alfaiata	Ribatejo e Oeste
MATUTANO - SOCIEDADE DE PRODUTOS ALIMENTARES, LDA	NA	NA
BATATAS MIRENSE, LDA	Cabeças Verdes	Ribatejo e Oeste
OLIVEIRA, PINHO E FILHOS, LDA	Carapelhos	Ribatejo e Oeste
PELARIGO & FILHOS - PRODUTOS PARA A AGRICULTURA, LDA	Foros de Salvaterra	Ribatejo e Oeste
HORTÍCOLAS SATURNINO, LDA	Alcochete	Ribatejo e Oeste
A SALOINHA - PRODUTOS ALIMENTARES, LDA	Encarnação	Ribatejo e Oeste
ABÍLIO CAETANO PAULINO & FILHOS, LDA	Zibreira	Ribatejo e Oeste
Fruit and vegetable juice production		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
LACTOGAL - PRODUTOS ALIMENTARES, S.A.	Porto	Área Metropolitana do Porto
COMPAL - COMPANHIA PRODUTORA DE CONSERVAS ALIMENTARES, S.A.	Miraflores	Área Metropolitana de Lisboa
CISTER - INDÚSTRIA DE PRODUTOS ALIMENTARES, LDA	Casal da Areia	Ribatejo e Oeste
PARMALAT PORTUGAL - PRODUTOS ALIMENTARES, LDA	Linhó	Área Metropolitana de Lisboa
GL INTERNATIONAL FOOD, S.A.	Vila Nova da Rainha	Ribatejo e Oeste
INDUMAPE, S.A.	Pombal	Beira Litoral
FRUTALCARMO - COMÉRCIO E INDÚSTRIA DE PRODUTOS ALIMENTARES, LDA	Alcoentre	Ribatejo e Oeste
FRUTÍSSIMA - CONCENTRADOS DE FRUTOS DA COVA DA BEIRA, LDA	Salgueiro	Ribatejo e Oeste
ENCOSTAS DO ATLÂNTICO, S.A.	Cortes	Beira Litoral
2 BE FRESH - TRANSFORMAÇÃO PRODUTOS ALIMENTARES, UNIPESSOAL, LDA	Abrunheira	Beira Interior
Fruit and vegetable freezing		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
IGLOOLA - DISTRIBUIÇÃO DE GELADOS E ULTRACONGELADOS, LDA	Lisboa	Área Metropolitana de Lisboa
MONLIZ - PRODUTOS ALIMENTARES MONDEGO E LIZ, S.A.	Alpiarça	Ribatejo e Oeste
LUÍS VICENTE, S.A.	Freixofeira	Beira Interior
BONDUELLE (PORTUGAL) - AGROINDÚSTRIA, S.A.	Zona Industrial	Área Metropolitana de Lisboa
DARDICO - AGRO-INDÚSTRIA, S.A.	Avis	Alentejo
SORTEGEL - PRODUTOS CONGELADOS, S.A.	Sortes	Trás-os-Montes e Alto Douro
FRUTADIVINA - PRODUÇÃO E COMÉRCIO DE FRUTAS E PLANTAS, SOCIEDADE UNIPESSOAL, LDA	Boavista Dos Pinheiros	Alentejo
FRIOPESCA - REFRIGERAÇÃO DE AVEIRO, S.A.	Gafanha da Nazaré	Beira Litoral
CERMOUROS - CEREJAS DE SÃO MARTINHO DE MOUROS, LDA	Rendufe	Entre Douro e Minho
BIOSONEGA, LDA	Cachão	Trás-os-Montes e Alto Douro

5.8 Main Players

For each of the sectors, some of the most important players, focused on processing, are shown in the following tables.

Fruit and vegetable drying and dehydration		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
INDÚSTRIAS DE ALIMENTAÇÃO IDAL, S.A.	Fonte das Sombras	Ribatejo e Oeste
DESTILARIA LEVIRA, LDA	Levira	Entre Douro e Minho
CASA ALTA - SOCIEDADE TRANSFORMADORA DE BAGAÇOS, LDA	Odivelas	Área Metropolitana de Lisboa
J.CARRANCA REDONDO, LDA	Meiral	Entre Douro e Minho
TOUL - SOCIEDADE PORTUGUESA DE DESIDRATAÇÃO, LDA	Azambuja	Ribatejo e Oeste
PIPE MASTERS - SERVIÇOS DE SOLDADURA E MANUTENÇÃO INDUSTRIAL, LDA	Amorim	Trás-os-Montes e Alto Douro
OLEOALEGRE, LDA	Monforte	Alentejo
ECOFRUTAS - ESTAÇÃO FRUTEIRA DA ESTREMADURA, LDA	Sobral do Parelhão	Ribatejo e Oeste
SOCIEDADE AGRÍCOLA QUINTA DE VILAR, LDA	Travancela	Trás-os-Montes e Alto Douro
MINIKIWI FARM, LDA	Landim	Entre Douro e Minho
Jams, jellies and marmalade production		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
PRISCA - ALIMENTAÇÃO, S.A.	Trancoso	Beira Interior
FRUTALCARMO - COMÉRCIO E INDÚSTRIA DE PRODUTOS ALIMENTARES, LDA	Alcoentre	Alentejo
CORVO & CORVO, LDA	Vila Real de Santo António	Algarve
CALIMENTA - AGRO-INDÚSTRIA, S.A.	Caldas da Rainha	Ribatejo e Oeste
DOM DUARTE - INDÚSTRIA DE PRODUTOS ALIMENTARES, LDA	Maia	Área Metropolitana do Porto
ILHOPAN - PANIFICAÇÃO E PASTELARIA, LDA	Caniço	Madeira
SOCIEDADE CORRETORA, LDA	Ponta Delgada	Açores
SOCIEDADE AGRÍCOLA QUINTA DA MÓ DE CIMA, S.A.	Lisboa	Área Metropolitana de Lisboa
DECORGEL - PRODUTOS ALIMENTARES, S.A.	Santiago do Bougado	Entre Douro e Minho
CASA MARIA VITÓRIA, LDA	Alcáçovas	Alentejo
Nut crop processors		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
RAIMUNDO & MAIA, S.A.	Alcobaça	Beira Interior
LAGAR DO VALE - PRODUÇÃO E TRANSFORMAÇÃO DE AZEITES, LDA	Beja	Alentejo
MADEIRA & MADEIRA, LDA	Alfandanga	Beira Interior
SORTEGEL - PRODUTOS CONGELADOS, S.A.	Sortes	Trás-os-Montes e Alto Douro
FRUTORRA - PIMENTA, LDA	Degraças	Trás-os-Montes e Alto Douro
CASA DA FONTE-PEQUENA, S.A.	Vinhós	Trás-os-Montes e Alto Douro
ESTABELECIMENTOS TEÓFILO FONTAÍNHAS NETO - COMÉRCIO E INDÚSTRIA, S.A.	São Bartolomeu de Messines	Algarve
MARIA EMÍLIA PEREIRA SOARES & FILHOS, LDA	Fafe	Entre Douro e Minho
AGROPECUÁRIA DE LENTISCA, LDA	Oriola	Alentejo
CHORONDO & FILHOS, LDA	Vale Rodrigo	Algarve

5.8 Main Players

For each of the sectors, some of the most important players, focused on processing, are shown in the following tables.

Fruit and vegetable preparation and preservation by other processes		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
SUMOL+COMPAL - MARCAS, S.A.	Carnaxide	Área Metropolitana de Lisboa
SUGAL - ALIMENTOS, S.A.	Fonte das Sombras	Ribatejo e Oeste
COMPAL - COMPANHIA PRODUTORA DE CONSERVAS ALIMENTARES, S.A.	Miraflores	Área Metropolitana de Lisboa
FRUTAS PATRÍCIA PILAR, S.A.	A Dos Cunhados	Ribatejo e Oeste
VILA GALÉ - SOCIEDADE DE EMPREENDIMENTOS TURÍSTICOS, S.A.	Oeiras	Área Metropolitana de Lisboa
NOBRE ALIMENTAÇÃO, LDA	Porto Salvo	Área Metropolitana de Lisboa
DE PRADO PORTUGAL, S.A.	Monte Fonte Frades	Alentejo
CISTER - INDÚSTRIA DE PRODUTOS ALIMENTARES, LDA	Casal da Areia	Ribatejo e Oeste
FRULACT - INDÚSTRIA AGRO-ALIMENTAR, S.A.	Tortosendo	Beira Interior
MONLIZ - PRODUTOS ALIMENTARES MONDEGO E LIZ, S.A.	Alpiarça	Ribatejo e Oeste
Olive oil		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
VICTOR GUEDES - INDÚSTRIA E COMÉRCIO, S.A.	Lisboa	Área Metropolitana de Lisboa
AGGRARIA LAGAR, LDA	Monte da Oripa	Alentejo
LAGAR DO SOBRADO, LDA	Gasparões	Alentejo
LAGAR DO VALE - PRODUÇÃO E TRANSFORMAÇÃO DE AZEITES, LDA	Beja	Alentejo
OLIBEST - GESTÃO AGRÍCOLA, LDA	Serpa	Alentejo
VALE DE S.MARTINHO - SOCIEDADE AGRÍCOLA, S.A.	Aljô	Trás-os-Montes e Alto Douro
DE PRADO Group	Monte Fonte Frades	Alentejo
SOCIEDADE AGRÍCOLA DO VALE DE UMBRIA, S.A.	Monte Carapetal	Alentejo
OLIVOMUNDO - SOCIEDADE AGRÍCOLA, LDA	Beja	Alentejo
NUTRIFARMS II OLIVES, S.A.	Miraflores	Área Metropolitana de Lisboa
Wine		
Main Players (selection by relevance and reported EBITDA in 2022)	Location - headquarters	Region
SOGRAPE VINHOS, S.A.	Avintes	Área Metropolitana do Porto
SYMINGTON FAMILY ESTATES - VINHOS, S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
COOPERATIVA AGRÍCOLA DE BARCELOS, C.R.L.	Barcelos	Entre Douro e Minho
SYMINGTON - VINHOS, S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
QUINTA AND VINEYARD BOTTLERS - VINHOS, S.A.	Vila Nova de Gaia	Área Metropolitana do Porto
CASA SANTOS LIMA - COMPANHIA DAS VINHAS, S.A.	Aldeia Galega	Ribatejo e Oeste
AVELEDA, S.A.	Penafiel	Entre Douro e Minho
ESPORÃO, S.A.	Reguengos de Monsaraz	Alentejo
GRANVINHOS, LDA	Vila Nova de Gaia	Área Metropolitana do Porto
CASA ERMELINDA FREITAS - VINHOS S.A.	Agualva de Cima	Área Metropolitana de Lisboa
ENCOSTAS DO ALQUEVA - PRODUÇÃO E COMÉRCIO DE PRODUTOS AGRÍCOLAS, S.A.	Póvoa de São Miguel	Alentejo
BACALHÔA - VINHOS DE PORTUGAL, S.A.	Azeitão	Ribatejo e Oeste
CARMIM - COOPERATIVA AGRÍCOLA DE REGUENGOS DE MONSARAZ, C.R.L.	Reguengos de Monsaraz	Alentejo
COOPERATIVA AGRÍCOLA DE SANTO ISIDRO DE PEGÕES, C.R.L.	Santo Isidro de Pegões	Ribatejo e Oeste
JOSÉ MARIA DA FONSECA - VINHOS, S.A.	Vila Nogueira de Azeitão	Ribatejo e Oeste

5.9 Producer Organisation

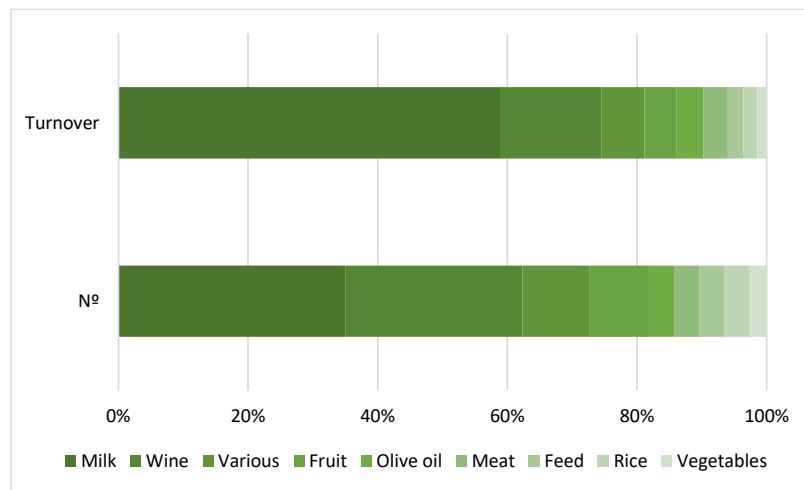
Introduction:

- The agricultural sector in Portugal lacks in organisation, since in most sector the level of producer organisation and association is quite low.
- Most farmers are linked to local associations, which provide some level of technical and administrative support, namely with CAP subsidies, and sometimes with input purchase, but the level of association and the extent of the services provided is very variable.
- Cooperatives are dominant for small farmers in sectors such as milk, wine and olive oil.
- Producer organisations, many of which are cooperatives, are relevant in some sectors, but the overall degree of organisation is low when compared to other EU countries;
- Few sectors have higher levels of organisation, such as Interprofessional Organisations.

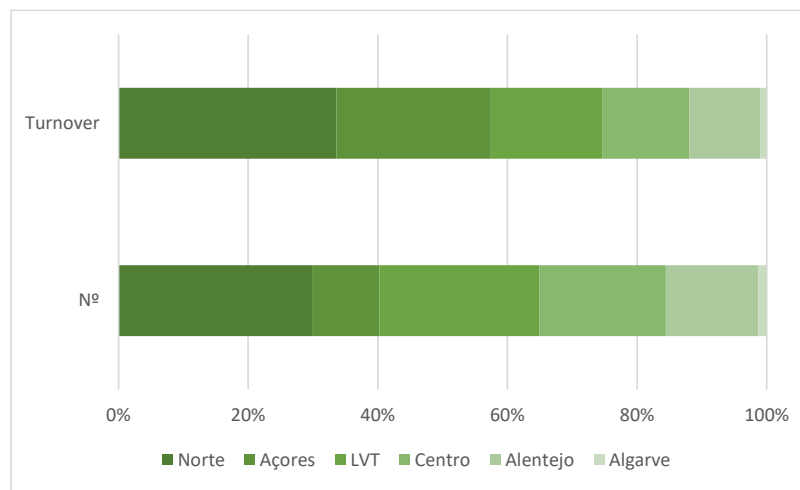
5.9 Producer Organisation

Cooperative sector:

- Portugal has some very large cooperatives in the agricultural sector, mostly in the milk sector, but also with some relevance in sectors such as wine, fruits, olive oil and generic farming.
- Out the 100 largest cooperatives in Portugal, 77 are in the agricultural sector. These accounted, in 2019, for an aggregated turnover of 1,641 M€, with the following breakdown:



Nº and turnover of agricultural cooperatives by sector in 2019 (Source: CASES, 2020)



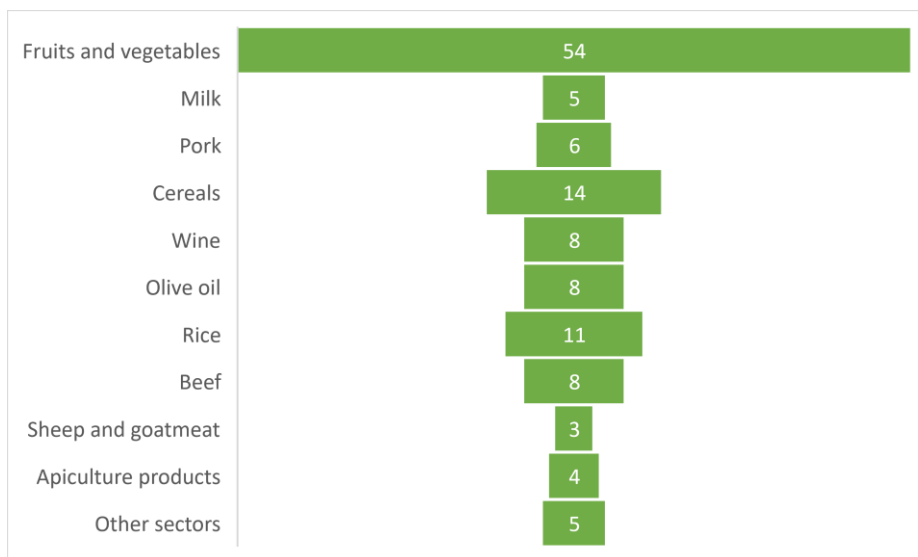
Nº and turnover of agricultural cooperatives by region in 2019 (Source: CASES, 2020)

- The milk sector in Norte and the Azores, with 20 of these 77 cooperatives, accounts for 50% of their turnover.
- Many cooperatives are also recognised Producer Organisations.

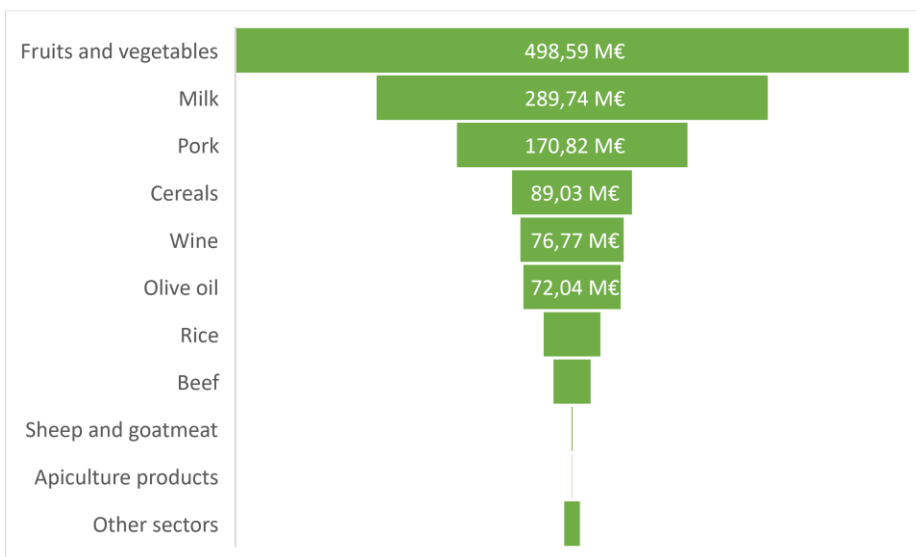
5.9 Producer Organisation

Producer Organisations:

- In Portugal, in 2021, there were 126 recognised Producer Organisations (POs) with a value of marketed production (VMP) of 1,280 M€. These were cooperatives (51%) or private companies of several types (49%).
- Fruits and vegetables are the sector with the most POs and with the highest VMP by these POs:



Nº of POs by sector in 2021 (Source: GPP, 202)



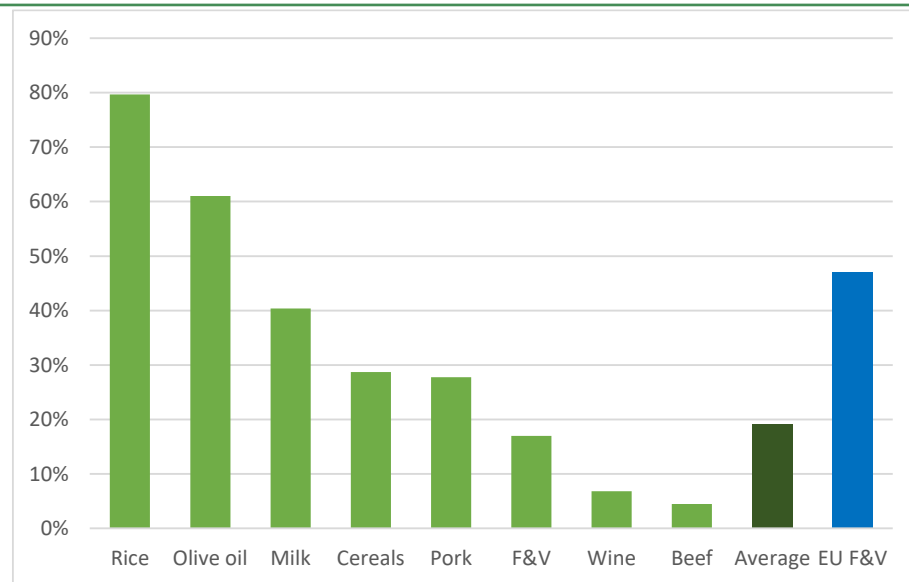
VMP of POs by sector in 2021 (Source: GPP, 2023)

- The milk sector is by far the one with the largest POs, with an average VMP of 58 M€, while the global average is of 10 M€.
- The region of Lisbon and Tagus Valley accounts for 41% of the number of POs and 40% of their VMP. VMP is also relevant in the Alentejo (26%) and Norte (24%) regions.

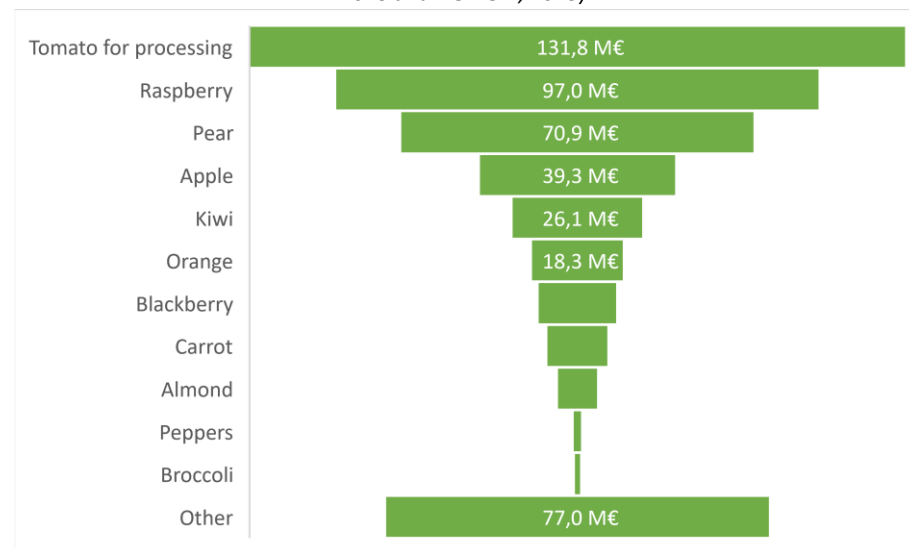
5.9 Producer Organisation

Producer Organisations:

- Most sectors have a relatively low degree of organisation, with only the rice and olive oil sectors having more than half of their sectors production value marketed by POs.
- On average, PO organisation rate is of 19% for all sectors and of 17% for the F&V sector, which compares with an EU average for the F&V sector of 47%.
- Within the fruits and vegetables sector, tomato for processing is by far the product with the highest VMP.
- Raspberries, pears, apples, kiwis and oranges also have relevant levels of VMP, which illustrates their good levels of organisation.



Rate of POs organization (VMP / total production value) by sector in 2021 (Source: GPP, 2023 and DG AGRI, 2023)



VMP for the main F&V products in 2021 (Source: GPP, 2023)

5.9 Producer Organisation

Inter-Branch Organisations:

- Inter-Branch Organisations aim at bringing together several parts of a products value chain, namely production, processing and marketing/distribution, with a balanced proportion of each part. They may also include consumer representatives.
- They must include representatives of at least 20% of the production, processing and marketing entities and 20% of the volume of production, processing and marketing in the country.
- Although these are common in some EU countries, in Portugal there are currently only 5 recognised Inter-Branch Organisations:
 - AIFO — Inter-Branch Organisations for the Olive Sector;
 - [ALIP](#) – Inter-Branch Milk and Dairy Association;
 - [Casa do Arroz](#) - Inter-Branch Rice Association;
 - [VINIPORTUGAL](#) - Inter-Branch Association for the Promotion of Portuguese Wine;
 - [FILPORC](#) — Inter-Branch Pork Sector Association.



Rua Cova da Moura nº2-3ºEsq | 1350-117
Lisboa



Tel. 21 484 7440 | Fax. 21 484 7441



www.agroges.pt