







WP3: The bee waggle dance - collecting information for business clusters on the honeybee products

O3.1 Existing situation analysis (study reports) on the economic potential of honeybee handcrafting

Responsible Partner: Cyprus Chamber of Commerce & Industry

Subcontractor: S.K. STIRIXIS Business Consulting Ltd

A3.1.2 Regional study on the economic value of networking around the honeybee

products: Case of Cyprus

Objective of this document

This study was carried locally on the current situation analysis and the potential benefits of the economic exploitation of the honeybee handcraft business and the wider development of the bee-economy concept in Cyprus. The study was based on the proposed template and common methodology prepared by the WP3 coordinator of the project. An identical study will be carried out in four other regions of the Mediterranean participating.











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The beekeeping unique characteristics in the region – an overview

Beekeeping is a very important element to the island of Cyprus and we know that there is an old bond between the people of this island and beekeeping. Cyprus was well known for its honey since antiquity although little evidence is available to support this from ancient sources. We know that during the celebrations in favor of Goddess Aphrodite a sweet product named 'plakountas' was offered that was made with honey and dough (or honey, olive oil and flour). More recent evidence is recorder by Kassianos Bassou in his book Geoponica (6th century), quoting Diophanes of the 1st century AD who wrote that 'the Attican honey is excellent but Cyprus honey from Chytroi (Kithrea village) is also very good'. Pliny in Naturalis Historia (77 A.D.) comments also that 'Sicilian hives are excellent for their bee wax but elsewhere, in places such as Crete and Cyprus, honey is better known for its abundance'. During the medieval period, products of the honey bee, mainly honey and wax were recorded as major export products. Well known traveller and writer of the 18th century, Russian Basilios Barsky makes explicit reference to the fact that ships were approaching Larnaca port to load the main export products of the island, namely olive oil, wines, carobs and honey. Jiovanni Mariti (1760) also makes reference to the trade of wax which was gathered in Nicosia, packaged into barrels and sent to Larnaca port for export. Prussian traveler J. Bramsen (1818) includes honey trade as a major export sector of the island and German archaeologist Magda Ohnefalsch-Richter (1894-1912) noted that bee keeping was in the hands of clergy men who managed especially in the mountainous regions to produce excellent and aromatic honey.

The unique Cypriot bee hive, named 'tziverti' is also highly praised by many foreign travelers who appear to have been impressed by the fact that Cypriots were cultivating bees literally in their houses. First Denis Possot in 1533 and later Clarke (1801) gave a thorough description of the Cypriot hives and the local apiculture practices which are probably dated since ancient times as suggested by the excavation of pottery cylinders dated from 650-750 AD. Tzivertia are the traditional, cylindrical shaped hives made from a mixture of mud and fodder 60-90 cm long and placed top of each other in horizontal rows covering the whole side of an outer house wall. Bees entered the hive from the outer side of the wall and the honey was harvested from the back of the hive which was placed literally inside the house. Data from 1894 indicate that at the time there were 500,000 such tzivertia in Cyprus, a situation that changed as British beekeepers who came in Cyprus during the early colonial period introduced









the more productive European hive, that gradually replaced the older traditional type. In 2005, out of a total 44,338 hives in use only 890 are of the traditional tzivertia type.

This long legacy together with the unique characteristics of the area have brought bee products of the island to be in an advantageous position. Honey from the island has been recognised and honoured with many awards regionally, internationally and globally however, there is still room for improvement for other bee products. This long track of exceptional honeybee products is connected to the unique characteristics of the region which are:

- the distinct subspecies of the bee,
- the weather conditions,
- the flora of the island, and the ecosystem of the island,
- the size of the country, different microenvironments proximity and
- the fact that Cyprus is a Member State of the European Union.

Apis mellifera cypria – Cyprian honeybee

If there would be just one important factor for the uniqueness of the bee products of Cyprus, this would be the distinct subspecies of the cyprian honeybee. *Apis mellifera cypria (A.m. cypria)* is potentially one of the least researched subspecies of the European Honeybee and it is endemic in Cyprus. However, more researchers today, try to unlock the secrets of this subspecies and its vast exporting success during the 19th century.

The aforementioned success was based on the fact that honeybees did not exist in North or South America, Australia or New Zealand until Europeans settled there. In fact, native Americans referred to the honeybees as "White Man's Flies". In the American Continent as in the rest of the New World, introductions of the western and northern European subspecies A. mellifera began as early as 1622, but the main influx took place much later, during the second half of the 19th century. Among the subspecies imported from different parts of Europe, the Near East and Northern Africa an important one was *A.m. cypria*. The Cyprus honey bee which at the same period was also introduced in mainland Europe. A great entomologist and bee researcher of the time, E. Cori managed to ship in the mid-1800s some bee hives to Austria in an effort to strengthen the local bee production. Subsequently, two great American bee keepers and researchers, Canadian D.A. Jones and American writer, Frank









Benton, took Cori's suggestions and other publications that highly touted the subspecies *A.m. cypria*, decided in the 1880s to set up a breeding apiary in Cyprus with the purpose of exporting bees to North America. At that time the importation of honey bees to the American continent intensified as a result of successful imports of Italian bees in 1858, that set ground to the establishment of a bee keeping industry involved in the trade of bee hives and queens from Europe. They both managed to ship the Cypriot race to the American and Canadian market while later on they breaded and exported Cyprian queens. Jones, published several articles in the American Bee Journal including "Cyprian bees: a superior race (1880)" expressing the view that 'the Cyprian bees are superior to any other race in the hands of experienced European bee-keepers'. At a speech he gave in 1880 to a national convention of bee keepers he made reference to the importation of Cyprian bees quoting that 'I feel satisfied that the years 1880-1881 will be marked in the bee history of America as making greater outward strides than any previous years' (ABJ 1880: The Cyprian and the Holy bees). Whether this was an exaggerated claim given the fact that Jones was building a business on the import of Cyprus bees, we don't know – but the fact remains that American bee keeping may owed much to the Cypriot indigenous bee¹.

The recent history is indicative of the importance of *A.m. cypria* but its behavioural traits, as they are described below, might have proven to be a limiting factor for its spread².

Like other Mediterranean subspecies it has developed different morphological and behavioral characteristics as a result of natural isolation³. Unfortunately, due to the introduction of foreign queens and honeybees for decades *A.m. cypria* is possibly in need of conservation actions and certainly in need for more targeted research.

Genetically, the Cyprian honeybee is different from the Greek bee and other *A. mellifera* subspecies of the area and generally homogeneous across the southern part of the island. However, the population of the honeybee on the northern part is closer to the *A. m. ligustica* (Italy) and the *A. m. anatoliaca* (Turkey), due to heavy import of foreign populations and queens⁴.

¹ Strange, J. P., "A severe stinging and much fatigue – Frank Benton and his 1881 search for Apis dorsata", Heritage, American Entomologist, Volume 47, number 2 (Summer 2001): 112-117

² Gounari S. Bee Biology, Εθνικό Ίδρυμα Αγροτικής Έρευνας (ΕΘΙΑΓΕ), Υπουργείο Γεωργίας, Ελλάδα

³ De la Rúa, P., et al. "Biodiversity, conservation and current threats to European honeybees." *Apidologie* 40.3 (2009): 263-284

⁴ Papachristoforou, A., et al. "Genetic characterization of the cyprian honey bee (*Apis mellifera cypria*) based on microsatellites and mitochondrial DNA polymorphisms." Journal of Apiculture Science. 57. (2013): 127-135.

³ Papachristoforou, A., et al. Attack or retreat: contrasted defensive tactics displayed by Cyprian honeybee colonies when preyed by hornets. Behavioural Processes, 86 (2010): 236-241

⁴ Papachristoforou, A., et al. "High frequency sounds produced by Cyprian honeybees *Apis mellifera cypria* when confronting their predator, the Oriental hornet *Vespa orientalis*". Apidologie 39 (2008): 468-474









The Cyprian bee has distinct behavioural characteristics that enable it to adjust, better that other subspecies, to the specific ecosystems of the region. Specifically, it has a notable defensive behaviour against the oriental hornet attacks. During attacks it has been observed that the colony would either attack the invader in big numbers and try to suffocate the hornet or the colony would retrieve. This behaviour was related to the barrier the colony had built in the entrance of the hive³. Also, the cyprian honeybee it is recorder to produce a hissing sound when attacked by hornets, different that other subspecies⁴ and it is able to engulf and suffocate attacking hornets in a ball of workers⁵.

Finally, regarding the growth of colonies over the year, the maximum growth was observed in May and the minimum in August, and this characteristic pattern differs from that of other subspecies.

Weather Conditions

Extreme weather conditions can negatively affect bees therefore the milder climate of the Mediterranean region benefits beekeeping. Dry summers and mild, wet winters can be especially beneficial for the subspecies of the region that have evolutionary adapted to these conditions. Also, according to local beekeepers, the dry climate of Cyprus can be a factor that supports the production of more concentrated honey with lower humidity therefore in need of less process.

Small country with rich biodiversity and many different microclimates and short distances

Cyprus is blessed with many different **microclimates** and habitat types, and due to the small size of the island, it is easier for beekeepers in the country to move their hives in different locations with diverse characteristics.

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⁵ Papachristoforou, A., et al. "Smothered to death. Hornets asphyxiated by honeybees". Current Biology, 17 (2007): R795-796









European Union

The status of Cyprus as one of the Member States of the European Union, might not be a unique characteristic but it undeniably is one of the factors that the country is able to produce high quality bee products. The EU acquis governing nature protection, food safety, animal welfare and the efforts put together by the Union for the protection of bees is another advantage. European Union has always been a champion of sustainability and healthy beekeeping in the region can be a bright example of this philosophy that blends environmental, social and economic factors. Cyprus benefits from the acquis but there is potential for better implementation.









The flora and the ecosystem that support the bees

Bees and plants (ecosystems in general), through millions of years of evolution, have developed an interconnected and co-dependent relationships that both benefit from. Plants provide nourishment to the bees and in return, bees provide pollination services. This relationship is a matter of survival for both, bees collect nectar and pollen from plants to use as food and at concurrently move pollen from one flower to the next, pollinating the plants.

⁵In Cyprus there is a plethora of plants that bees harvest. The flora especially around the Troodos Mountains is varied and rich of aromatic wild herbs while large citrus groves are present around the island leading to the production of two major types of honey, one derived from thyme plants which flower during the summer period and the other derived from citrus trees that flower during the autumn season. Two other unique honeys available in much smaller quantities come from two wild growing plants with a short flowering period, namely wild lavender – known commonly in Cyprus as 'Mirofora' (lavandula angustifolia) and wild growing 'Melissochorto' (Melissa Officinalis).

The State General Laboratory in collaboration with the Department of Agriculture of the Republic, issued the "Pollen Atlas of the Honey Flora of Cyprus" with 120 different apicultural plants. The atlas includes the identification and classification of these well-known Cypriot honey flowers as well as the microscopic examination and display of their pollen grain.

⁶Except from contributing to each type of honey, the plants of each region are important for the support of the bees and these plants can be narrowed down to each season based on the availability and the quantity of the plant in the wild. See below some of the core plants bees mainly use in Cyprus separated in periods/seasons.

⁵ Pollen Atlas of the Honey Flora of Cyprus (2017 Publication - Greek) - Γυρεολογικός Άτλαντας των Μελισσοκομικών Φυτών της Κύπρου (pio.gov.cy)

⁶ Διαχείριση των μελισσοσμηνών, Τμήμα Γεωργίας, Έκδοση 19/2012. Λευκωσία, Γ.Τ.Π. 333/2012—2.000, ISBN 978-9963-50-144-1









Early blooming spring plants

Sarcopoterium spinosum (Thorny Burnet), Oxalis pes-caprae (Sourgrass), Sinapis sp. (Wild Mustard) and Prunus sp. (Almond Tree).



Later blooming spring plants

Citrus sp. (Citrus) and Lavandula stoechas (Wild Levader).







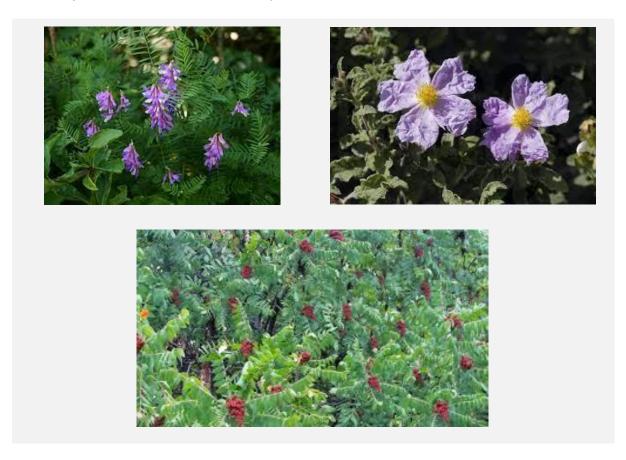






Summer blooming plants

Vicia tenuifolia (Fine-leaved Vetch), Cistus sp. (Rock Rose) and Rhus coriaria (Sicilian Sumac).



Later blooming Summer and early Autumn plants

Thymus sp. (Thyme), Ceratonia siliqua (Carob Tree) and Inula viscosa (False Yellowhead).













See the full list of the 120 plants, found in the pollen atlas, In ANNEX I.

Find in Chapter 6 the blooms beekeepers identify as the most suitable and use, in Cyprus.









The beekeeping sector of the region in numbers (time series data on hives, beekeepers, production, regional concentration if any etc)

According to the data collected through September and October of 2020 for the "Beekeepers Register" by the Agriculture Department, the number of beekeepers was 755, and the number of hives was 58,184. The total honey production for the year 2020 is estimated at 519881 kg and the average annual production per hive at 8.93 kg. The average number of colonies per beekeeper was 77 (find bellow data comparing Cyprus with the EU average). It is important to note that from the 755 beekeepers, only 86 are women and from them only 17 have more than 150 hives (considered professionals). It is important to highlight that the export of Cypriot honey is very limited, less than €50,000 annually (2018 data). This is a robust indicator that imported low quality honey from abroad has not been a deterrent to the distribution of local products⁷

Most data shown below were collected by the Plant Protection and Beekeeping Sector of the Agriculture Department of the Ministry of Agriculture, Rural Development and Environment, and were published through the official webpage of the department⁸.

	Cyprus (2020)	EU average ⁹ (2020-2022)
No. of Beekeepers	755	615,058
No. of hives	58,184	18,926,000
Total honey production (kg)	519,881	240,000,000
Average annual production per hive (kg)	8.93	22
Average no. of hives per beekeeper	77	21

*Detailed data for each EU Member State in **ANNEX II**, regarding:

- Livestock (honeybee colonies), number of beekeepers, distribution and density of honeybee colonies in the European Union in 2010
- Description of the different types of beekeeper activities and sizes of the apiaries in Europe in 2010 (percentage)
- European production of bee products in 2010

⁷ Department of Agriculture.

⁸ Beekeeping Statistics (2020-2021), Xp. T. Agriculture Department, Plant Protection and Beekeeping Sector.

⁹ NAPs 2020-2022







Table 1: Beehive Distribution in 2020, Source: Department of Agriculture

Group based on number of beehives	Number of beekeepers	Beekeepers in group	Number of beehives	Beehives in group
1-9	152	20.1 %	676	1.2 %
10-19	151	20 %	1931	3.3 %
20-29	77	10.2 %	1762	3 %
30-49	113	15 %	4186	7.2 %
50-99	139	18.4 %	9438	16.2 %
100-149	42	5.6 %	4894	8.4 %
>150	81	10.7 %	35297	60.7 %
Total	755	100 %	58184	100 %

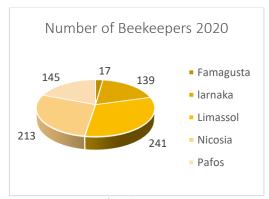


Figure 1: Number of beekeepers in 2020 by province Source: Department of Agriculture

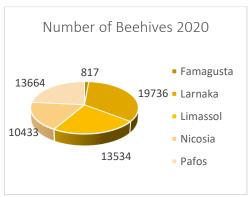


Figure 2: Number of beehives in 2020 by province Source: Department of Agriculture

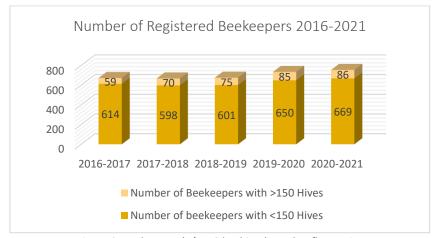


Figure 3: Beekeepers (</>150 beehives) number fluctuation Source: Department of Agriculture







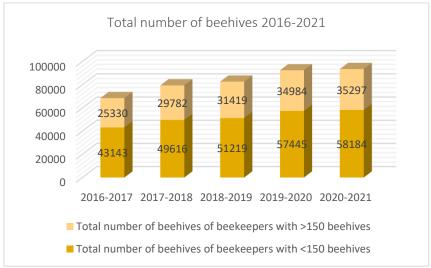


Figure 4: Total number of Beehives based on beekeepers' group (</>150 beehives) Source: Department of Agriculture

Table 2: Precipitation and Honey Production Corelation

Year	Precipitation (mm)	Honey Production (t)	
2015-2016	309	495 ¹⁰	
2016-2017	413	246	
2017-2018	447	515	
2018-2019	785	584	
2019-2020 626		660	
2020-2021	511 ¹¹	520	

Table 3: Production (in kg) of other-than-honey bee products in Cyprus, during the period 2016-2020

Year	Pollen	Royal Jelly	Wax	Propolis
2016	1946	9.27	8350.5	32.6
2017	1777	7.0	10516	15.24
2018	1745	7.5	12194	31
2019	3354	5.0	10794	155
2020	1916	6.55	8145	97.63

¹⁰ Note: Estimation from chart - Beekeeping Statistics (2020-2021), Xp. T. Agriculture Department, Plant Protection and Beekeeping Sector.

¹¹ Climate Change Knowledge Portal, World Bank Group, <u>Cyprus - Climatology | Climate Change Knowledge Portal</u> (<u>worldbank.org</u>) accessed 26/03/2021









Beekeeping economic figures and employment in rural regions (macroeconomic impact of beekeeping)

Beekeeping holds a very small part of the total rural economy of Cyprus. Although as a profession it is considered as traditional and it's been exercised in Cyprus since ancient times, there is an observation that there are no particular increases in beekeepers or beehives. According to the Department of Apiculture, based on the data gathered every year, the ratio shows that each beekeeper has on average about 77 hives.

Most of the professional beekeepers have more than 2,000 hives. Usually, they employ permanent staff. Their main areas of operations are Larnaca, Nicosia and Paphos. This category mainly includes individuals that have beekeeping as their main source of income. However, there are other cases where individuals combine beekeeping with other agricultural sectors, but have smaller number of hives, about 1,000 - 1,500. In total, both categories do not amount more than 10 people-units.

Cyprus Agricultural Payments Organisation (C.A.P.O) periodically announces financial data for all agricultural sectors. These data are collected mainly by the Department of Agriculture and the Agricultural Research Institute. They are mainly used for the European subsidy schemes announced, and for the evaluation of applications, whether a farmer and his unit are financially viable.

Based on the data collected from the last program announced in February 2022 with purpose to strengthen existing units and create new ones, to be considered as a young professional beekeeper and sustainable in the beekeeping industry, his unit must have a standard yield of € 20,000 per year, i.e., to have a minimum of 175 beehives. Given that the current average of 77 hives, the 175 colonies required are more than double of the existing figure.

Below are presented in detail the Expenditures required per hive and the revenues in a productive year. The data are from C.A.P.O. and specifically the list of Revised Indicative Prices of Crops and Productive Animals for the Evaluation of Improvement plans.









Table 4:Typical yields of bees **per hive** in a productive year (**Cyprus Agriculture Payments Organisation**)

	Single beehive (data from CAPO) ¹²	POSSIBLE Annual Amount of beekeeper with 77 beehives	POSSIBLE Sector Income
Total Variable Expenditure outside foreign labour	€60,71	€4,674.67	/
Foreign labour costs	€5.2	/	/
Total hours worked in a year	6h	462h	/
Income	€115.84	€8,919.68	€6.7 millions

The annual income per hive is approximately € 115.84. This amount is only income related to the production of honey. No revenue has been calculated from other hive products. With the data we have, honey has the lowest price per kilo, in comparison to other bee products.

For the first 5 products of the above list, the main buyers are consumers. With regards the colonies clusters and queens, the main buyers are the beekeepers themselves.

Official state figures show that the quantities of products other than honey are very small. The figures may present a statistical error, as the way of recording the quantities of all products is done either orally (telephone interviews from the Statistical Service of Cyprus) or by filling in a voluntary form sent to beekeepers every year (Department of Agriculture) in order to complete the Register Beekeepers.

In both cases of recording, in addition to the quantities, the sales prices of the products in wholesale (where available) and retail sales are

Table 5: The priceof bee products

Source: Christodoulou C., The impact of climate change to the production of honey in Cyprus, 2018

Product	Average Price
Honey	€4 - €15
Wax	€6 - €20
Pollen	€20 - €45
Propolis	€60 - €100
Royal Jelly	€16 – €25
Venom	/
Colony clusters	€60 - €75
Queens	€5 - €35

 $^{^{12}}$ Christodoulou C., The impact of climate change to the production of honey in Cyprus, 2018







also declared. This point as well may have errors, as beekeepers give lower prices due to concern about their possible taxation. Also, the prices of the two services, Statistical Service and Department of Agriculture, show significant exclusions between them.

^{*}More accurate data on the macroeconomic impact of beekeeping could not be gathered or extracted. This issue should be dealt by research that covers all the parameters mentioned above.











A SWOT analysis of the beekeeping sector in the region

	Strengths		Weaknesses
•	Spring begins early in the year. Many times, from February, with temperatures reaching above 18 – 20°C that result in the growth of bee colonies early. Therefore, the production of honey and other products start earlier in the year in comparison with other European countries.	•	Short winters, with little rainfall and relatively mild temperatures. This initially creates a problem for bees in matters of health and well-being, as the beehive does not rest and spends energy all year round. In terms of production, reduced rainfall negatively affects wild vegetation which is an important source of nectar and pollen for bees.
•	Due to the small geographical area of Cyprus and the fragmentation of agricultural land, there are no monocultures in a large cale. So, per collection area, bees encounter great diversity in plants. This, initially, helps bees in	•	The beekeeping world is outdated/obsolete and attached only to traditional beekeeping. They also lack education and have no access to new technologies, techniques and materials.
	terms of health and well-being but also in the production of products. The honey produced is rich in many different pollen grains and the honey produced per region is different in taste, smell and colour. For those who	•	There are no sufficient incentives, mainly from the state, for a young person to get serious about beekeeping and produce innovative products.
	collect pollen, natural mixtures are created from various plants. The pollen of each flower has a different colour and contains a different percentage of protein and trace elements. The same happens in the propolis collection,	•	Inability to produce honey in large quantities for export at a better price.
	which is enriched by many different secretions of plants. That's why from region to region we find propolis of different colour (green, brown, black) with different percentages of antiseptic substances.	•	Reluctance among beekeepers for collaborations.





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- Due to the warm spring and the dry-warm summer, the nectar in the blossoms
 is more concentrated, resulting in the production of honey that is quite
 viscous, compared to the honey produced in other countries of northern
 Europe. The honey is more aromatic but mainly have an ideal humidity of 1418%, without the risk of yeast growth and microorganisms.
- The plan for aid framed by the National Apiary Program prepared by the Ministry of Agriculture could be more generous. The budget could/should be reconsidered along with the altitude restrictions.

	Opportunities		Threats	
•	Creation of partnerships between beekeepers operating in the same area. Joint treatment of the problems of their area.	•	Imports of honey from other EU countries at a very low price.	
•	Ability to exploit the Cypriot nature as it is, in order to produce products that do not depend on the weather conditions.	•	The beekeeping areas are slowly condensed. They are destroyed by fires or threatened by residential development. Areas destroyed by fires are not reforested with apiculture plants.	
•	Support for young beekeepers who have more knowledge and appetite to engage in beekeeping and raise the sector to a higher level.	•	Exacerbation of diseases and enemies that afflict bees and inability of a large number of beekeepers to identify them on time and cope with them.	









The region's product portfolio on honeybee products and the honey types available

Beehive Products - Beekeeping Products

A hive can produce and exploit economically, Honey, Pollen, Wax, Propolis, Royal Jelly, Venom, Bee Clusters, Queens. The Cypriot nature enables the beekeepers to be able to produce all the hive products. **Honey** is a viscous sweet product that results from nectar or other plant juices or secretions from living plant parts or insect secretions after processing by the bee organism and further maturation within the honeycombs of the hive. (F.A.O. International Organization for Agriculture and Food). **Pollen** comes from the male reproductive cells of plants - pollen grains. It's collected from the collecting bees. Bees collect it because it is the only source of protein for them. The percentage of vegetable protein contained in pollen, ranges from 18 - 23% depending on the plant that comes from. The bees use it mainly for the preparation of Royal Jelly

The wax is produced by the wax glands of the bees at the age stage of the builder, the 3rd working stage of the worker bees. With this, they create cells which have a storage role. In them, the worker bees can store honey and pollen from their foraging, while the queen uses them to lay the eggs she lays. **Propolis** is a sticky substance that is collected from plant secretions. It has many properties, most notably the antiseptic as well as its ability to be used as an adhesive. Its main use inside the cell is to sterilize the cells, cover and close cracks.

Royal Jelly is a whitish, creamy substance, produced by the hypopharyngeal glands of bees in the feeder-nanny stage. It is the main food for the queen and the juvenile stages of bees. A product very rich in vitamins and minerals. The **Venom** is located in a bag, on the back of the bees' body together with the sting. It has anti-inflammatory properties and is used for treatments. Branches are the young beehives created by the sharing of productive bee colonies. The aim is to increase the beekeeping population. **Queens** are produced for the purpose of renewing the genetic material of cells.

Unfortunately, the majority of beekeepers use only honey and wax. This is because most of them are old, have not been trained to produce other products or have not tried and mainly because most of them are engaged in beekeeping as an amateur or as a hobby, so they are not interested in expanding their activities. The public that buys their products is people who do not know about the rest of the hive products and are interested in buying honey from a local producer and not from the retailer. Another reason why most beekeepers only produce honey and wax is because these two products are











linked and the work required from the beekeepers is minimal. That is, the production of honey also causes the production of wax. Although they produce both products, most of them sell only the honey.

At younger ages we meet beekeepers who produce and market more products. Especially wax, pollen and propolis. These products have more added value, they are aimed at a younger audience, who are looking for alternative and innovative products. Of course, their production requires training or search for knowledge and purchase of additional tools or equipment by the beekeepers. Younger ages are more willing to go through a training process to learn to produce these products. Also, their production requires more working time in the apiary. Because as a product they have a higher price than honey, it is also an incentive for their production. So many beekeepers, mostly amateurs, take advantage of their beekeeping business to earn a decent extra income. Some of the products are also sold as raw material for the production of other products, such as cosmetics and natural healing preparations.

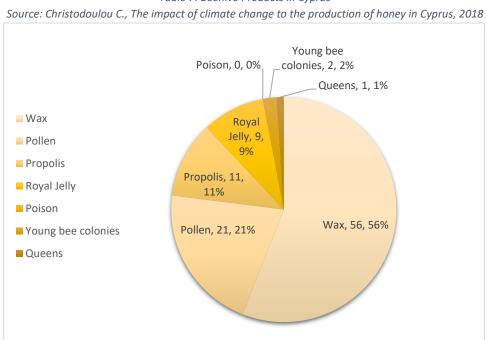




Table 6: Beehive production percentage per product Source: Christodoulou C., The impact of climate change to the production of honey in Cyprus, 2018

Product	Percentage on production
Wax	56 %
Pollen	21 %
Propolis	11%
Royal Jelly	9%
bee cluster colonies	2%
Queens	1%
Venom	0%

Table 7: Beehive Products in Cyprus



Honey Products

Cypriot honey is pure nectar honey, i.e. it is produced from flowers. In many countries honey is produced from the secretions of plants such as pine and fir, which do not bloom or from the secretions of insects. These honeys are called honeydew honeys.

In Cyprus, regarding the origin of honey, research of the Aristotle University of Thessaloniki (2008), proved that the Cypriot honey is purely blossom honey, i.e. that its collection comes exclusively from flowers. This research was called "Identity of Cypriot Honey" and was accepted by both the Department of Agriculture and the Health Services, which use it in the context of analyses for fraud.









The research also presented the basic types of monofloral honeys that are, i.e. honeys that contain in their largest percentage only one plant and can be named from it.

The main categories of honey are the following: Citrus Honey - Orange, Fragrant Honey, Thyme Honey, Carob Honey, Eucalyptus Honey. In order for honey to be named as coming from a plant in the largest percentage, it must meet certain conditions such as its content in a certain number of pollen grains, that are different for each plant. In some categories an important factor is the Dimension and HMF indices that differ. (e.g. orange, fragrant).

Beekeepers know some basic blooms which they seek to exploit for honey production. In some areas of the island other categories of monochloride honey can be produced, since some beekeeping plants are in a large percentage and at the end of flowering to be harvested immediately. Below is a graph with the crops that beekeepers consider to be essential for honey production.

Table 8: Percentage of basic blossoms for honey production as thought of beekeepers Source: Christodoulou C., The impact of climate change to the production of honey in Cyprus, 2018

Blossom	Beekeepers use (%)
Thyme	30
Citrus	15
Eucalyptus	8
False yellowhead	8
French Levander	7
Wild rosemary	7
European heliotrope	7
Carob tree	4
Almond tree	4
Other fruit trees	3
Hawthorn	3
Sicilian Sumac	2
Other wild vegetation	2

The largest category of honey that we find in Cypriot honeys is multifloral. That is, honeys that come from two or more plants, the percentage of which is not to such an extent that it gives its name to honey. It is rich in aroma and taste, with colours that vary depending on the species of plants they contain and their percentage. The mixing may have been done by the bees during the collection process because there were several flowering plants at the same time. Many times, the blend is done in the beekeeping laboratories by the beekeepers in order to combine the production that they had either during the year or from different areas. Below is a list of plants from which bees can collect nectar and pollen and can be found in honeys of various blossom.









Common Local Name	Latin Name	Altitude it is encountered	Offers	Honey production as honey monochloride
Wild Asparagus (Άγρια Σπαράγγια, Αγρέλια)	Asparagus stipularis	0-600 m	Pollen	
French Levander (Αγριολεβάντα, Μυροφόρα)	Lavandula stoechas	0-750 m	Pollen + Nectar	YES
Wild mustard (Αγριοσινάπι, Λαψάνα)	Sinapis arvensis	0-1200 m	Pollen + Nectar	
False yellowhead (Ακονιζιά, Κόνιζος)	Inula viscosa	0-1600 m	Pollen + Nectar	YES
Almond tree (Αμυγδαλιά, Αθασιά)	Prumus amygdalus	0-1500 m	Pollen + Nectar	
Anathrika (Αναθρίκα)	Ferula communis	0-400 m	Nectar	
Androuklia (Ανδρουκλιά, Κουμαριά)	Arbutus antrachne	0-1200 m	Pollen + Nectar	YES
Asphodelos, Spourtoula (Ασφόδελος, Σπουρτούλλα)	Asphodelus aestivus	0-1000 m	Pollen + Nectar	
Pear (Αχλάδι)	Pyrus communis	500-1000 m	Pollen + Nectar	
Scotch thistle (Γαιδουράγκαθο)	Onopordum acanthium	0-600 m	Nectar	
Citrus (Εσπεριδοειδή)	Citrus sp.	0-600 m	Pollen + Nectar	YES
Lemon (Λεμονιά)	Citrus Limon	0-600 m	Pollen + Nectar	
Orange (Πορτοκαλιά)	Citrus sinensis	0-600 m	Pollen + Nectar	
Bitter Orange (Κιτρομηλιά)	Citrus aurantium	0-1000 m	Pollen + Nectar	
Mandarin (Μανταρινιά)	Citrus deliciosa	0-600 m	Pollen + Nectar	
Pomelo (Πόμελο)	Citrus grandis	0-600 m	Pollen + Nectar	
Grapefruit (Γκρέιπφρουτ)	Citrus paradisi	0-600 m	Pollen + Nectar	
Eucalyptus (Ευκάλυπτος)	Eucalyptus sp	0-400 m	Pollen + Nectar	YES
Thyme (Θυμάρι)	Thymus capitatus	0-900 m	Pollen + Nectar	YES
Crimson bottlebrush (Καλλιστήμωνας)	Callestemon lanceolatus	0-600 m	Pollen + Nectar	
Caper bush (Κάππαρι)	Capparis spinosa	0-900 m	Pollen + Nectar	
European heliotrope (Κατσουνόχορτο)	Heliotropium europaeum	0-500 m	Pollen + Nectar	
Wild rosemary (Κενταύριο, Αρκολασμαρί)	Ptilostemon chamaepauce	50-1600 m	Pollen + Nectar	
Cherry tree (Κερασιά)	Prunus avium	500-	Nectar	

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Hawthorn (Κράταιγος, Μοσφιλιά) Pink rock-rose (Λαδανιά, Ξυσταρκά) Japanese medlar (Μουσμουλιά, Μεσπιλιά) Common Myrtle (Μύρτος, Μεσρινιά Sourgrass (Οξαλίδα, Οξινούδι) Common jujube (Παλιούρι, Παλλούρα) Jerusalem thorn (Παρκισσσόνια) Pomegranate tree (Ροδιά) Sicilian sumac (Ρούδιν, Σουμάκι) Sage (Φασκόμηλο, Σπατζιά) Palm tree (Φοινικίες) Prickly pear cactus (Φραγκοσυκιά, Παπουτσοσυκιά) Carob tree (Χαρουπιά, Τερατσιά) Siberian apricot (Χρυσομηλιά, Καισιά) Spanish hedge-nettle (Φασσόχορτο)

> Black locust (Ψευδακακία)

Crataegus azarolus	0-800 m	Pollen + Nectar	
Cistus cretica	0-1800 m	Pollen	
Mespilus japonica	0-1200 m	Pollen + Nectar	
Myrtus communis	0-1500 m	Pollen + Nectar	
Oxalis pes caprae	0-800 m	Pollen + Nectar	
Ziziphus lotus	0-500 m	Pollen + Nectar	
Parkinsonia acuelata	0-400 m	Pollen + Nectar	YES
Punica granatum L.	0-1200 m	Pollen + Nectar	
Rhus coriaria L.	600-1600 m	Nectar	
Rhus coriaria L. Salvia officinalis	600-1600 m 0-1500 m	Nectar Nectar	YES
			YES
Salvia officinalis	0-1500 m	Nectar	YES
Salvia officinalis Palm trees sp.	0-1500 m 0-600 m	Nectar Pollen + Nectar	YES
Salvia officinalis Palm trees sp. Opuntia ficus-indica	0-1500 m 0-600 m 0-750 m	Nectar Pollen + Nectar Pollen + Nectar	
Salvia officinalis Palm trees sp. Opuntia ficus-indica Ceratonia siliqua	0-1500 m 0-600 m 0-750 m 0-1000 m	Nectar Pollen + Nectar Pollen + Nectar Pollen + Nectar	









Marketing & packaging



Figure 5: Cyprus honey trademark symbol

Beekeepers, the Cyprus Beekeeper's Association and other stakeholders have managed, after a long time, a lot of effort and a lot of discussions internally and externally, to present in September of 2019 the trademark of Cypriot honey. The trademark is a golden hexagon (honeycomb shape) with a foil effect (foil printing) and in the middle it has the shape of Cyprus with a bee on top. The trademark indicates the "quality and authenticity" that defines Cyprus honey and it is placed on all locally-produced honey, allowing for easy recognition. Honey carrying the trademark is 100% locally-produced from the nectar of Cyprus flowers, which is verified through strict

authenticity and quality checks carried out by the state. The trademark is a strong marketing asset and it could be promoted and used at it's full potential not only for the market of Cyprus but also internationally.

A large number of small-scale bee-product producers sell their products hand to hand because they rely on the quality of the product to be the selling point. This might be a good practice for smaller-scale, slower-growth businesses but building a more diverse marketing plan can give more stability. Marketing wise, beekeepers and other beehive product producers in Cyprus could develop more progressive marketing strategies and use more advanced marketing tools. Out of the 755 beekeepers on the island maybe only a handful use social media and has a website to promote their products, these data would need further research¹³.

In other products, using bee-products as raw material, we see that the use of these materials is used as a selling point to the final customer. The last decades and especially ne last few years we see a shift of the consumers' preference towards more natural, more sustainable products because consumers are more aware of the global environmental issues. Unfortunately, some companies and some producers use this consumption practices in their own benefit by presenting their products as natural

¹³Pougounia S., ΣΗΜΕΙΩΜΑ_Η ΚΥΠΡΙΑΚΗ ΑΓΟΡΑ ΜΕΛΙΟΥ cy.pdf (mfa.gr), 2019







and sustainable, this is called greenwashing. In this sector, the sector of bee-products, greenwashing can be easier to encounter as control can be challenging to enforce.

Packaging, an important element of promotion and image of a product is often not considered deeply in Cyprus. Plastic and glass are the choice of preference for most producers and retailers, in many sizes and typically with a squeezable option. The graphic design and of the labels but also the design of the actual bottle or vase is for the majority rudimentary. Below there are some examples of honey brands in Cyprus.

Disclaimer: It is very important to highlight that there has not been carried out extensive research for the packaging preferences of consumers for the purposes of this report and the examples given below are solely for the reader to decide which style/resign is more compatible to their own personal aesthetic.































There is an abundance of packaging shame shapes and sizes producers use in other countries and Cypriot producers could be benefited from getting inspired by those ideas. See below some examples of imaginable honey packaging.





































Regional tourism products and services based on the honeybee

Cyprus is a world-renowned tourist destination for many decades because it offers great weather, 340 days of sunshine per year and high-quality bathing water. The island is also rich in history and culture and any tourist has a long list of activities and sightseeing's to pick and choose from. Tourism is one of the mane products of the country and throughout most of the later decade has represented a percentage of 20% of the GDP¹⁴. However, there has been a shift and efforts have been made to upgrade and diversify Cyprus' tourism product to fit into the needs and expectation of travellers.

Paving the way towards a more sustainable future, Cyprus is actively targeting new markets, reassessing existing ones and rebranding in order to create a richer holiday experience emphasizing culture, nature and indigenous heritage¹⁵¹⁶. This is where regional tourism products and services based on the honeybee fit in and are called to deliver a memorable experience to the visitor. In Cyprus at the moment there is a movement of a handful of businesses offering this type of tourism and there is also involvement of local stakeholders that promote them.

Local organisations, beekeepers and other individual started offering new products to internal and external tourists. For example, some offer tours, others show tourist how to be a beekeeper, how to tent to bees, how to extract honey and other products, even how to make candles and cosmetics from bees' wax. Moreover, there have been established specific routes for honey tasting and generally visiting places where one can get to know more about bees, the beekeeping practices and the beekeeping history of the island. Below are listed some examples, the list is not extensive.

Name	Location	Details
G.S. Ecophysis	Vavla	Bee Tour: "Become a Beekeeper for a Day", Eco Tour: "Get to Know Nature", Tasting program "Gastronomy" and Beeswax aromatic candle making workshop
Oros Maxaira	Melini	Tours, Honey tasting, Interactive games
Bee & Embroidery Museum	Kato Drys	
Bee & Embroidery Museum	Odou	

¹⁴ Clerides S., Pashourtidou N., Tourism in Cyprus: Recent Trends and Lessons from the Tourist Satisfaction Survey, University of Cyprus 2007

¹⁵ Deputy Ministry of Tourism, Republic of Cyprus

¹⁶ <u>https://www.cyprusprofile.com/sectors/tourism</u>









Bee Park	Melini	
Bee Hotels	Layia, Melini, Ora, Odou	
World Bee Day & Bee Festival in		
May		
Honey & Beekeeping Festival in		
June		
Honey Festival for Children in		
September		
Antelia Bee Park	Next to the Dam of Achna in Famagusta	









Honey in the local/traditional gastronomy

Honey for the Cypriots of the Ottoman and modern period was considered a component for preparing sweet foods. This idea is found in the folk tale "O Aκίνητος" (O Akinitos). The fairy tale "O Akinitos" tells the story of princess Eugenia. When her father called his daughters to tell him how much they loved him, the first two said that they loved him like honey and like sugar¹⁷.

There are findings that suggest the use of honey on the island from as early as the 4^{th} - 3^{rd} BCE (Before Common Era). Honey has been used by the people of the island as a sweetener alongside other products like carob syrup and epsima (thick syrup from grape must). The main use of honey was for making sweet recipes that were served as desserts but after the late Byzantine period (mid 7^{th} century – 1191), sugar gradually started replacing these traditional sweeteners¹⁸.

Thankfully, sugar hasn't entirely replaced honey and we still have many traditional recipes that use it. Honey is still a basic element for Cypriot cuisine, it is even used as a healthy alternative to sugar in coffee and tea. It is typically used during breakfast on toasted bread, over yogurt with sprinkled nuts on top, over fresh unsalted anari (a local soft white mascarpone-like cheese), and in any other form one can think. In more modern versions of starters and desserts one can drizzle honey over grilled Halloumi cheese.

Fortunately, Cypriots continue to make traditional foods that use honey, some of the most known are listed below:

Pishies. Deep fried pastry dessert filled with cinnamon and sugar, served with honey and crushed almonds. It was a common dough preparation made on many occasions. It was prepared as a gift to the midwife after the birth but also as a gift of the midwife to the friends and relatives who wished her for the baby. Pishies were also part of the sweets prepared offered at christenings and at weddings.

See recipe in ANNEX II page 28

Pastellaki. Cruncy and sweet snack, made with honey and sesame seeds. Pastellaki or Pastelli
is of great nutritional value and an energy booster well suited for substituting candies, lollies

¹⁷ Cyprus Food Virtual Museum - μέλι,το (ucy.ac.cy)

¹⁸ https://estia.hua.gr/file/lib/default/data/8506/theFile







and other manufactured sweets which involve chemical stabilizing agents. A recent variation of the product involves the addition of almond or pistachio nuts in the mix.

See recipe in ANNEX II page 29

Grape must cookies with honey¹⁹
 See recipe in ANNEX II page 30





Today honey is not only used as a sweetener in desserts and sweet snacks but also in savoury recipes. It can be used in sauces for any dish and in salad dressings. Three fairly modern recipes prepared by Cypriots the last decades are:

- o Pork pancetta with thyme honey
- o Gigantes (butter/giant beans) with honey in the oven
- o Anarokrema (cream made with anari) with honey and walnuts

¹⁹ Αγρότης, τεύχος 481 (publications.gov.cy)









See the recipes of the foods mentioned and others in ANNEX II









Chapter 10

Needs & expectations of the local honeybee MSMEs and the people in building up a bee-business

Needs

- Knowledge: Every person who wishes to acquire bees should necessarily have the basic knowledge on how to take care of them during the year in matters of living, dealing with diseases, nutrition. Bees are living organisms and if they do not have the right care they will be destroyed. Then he should supplement his knowledge about the production of quality beekeeping products. The acquisition of knowledge in the management of an agricultural enterprise is also considered necessary.
- Financial support: From the state or Europe in terms of funding. A very important part given the difficulty nowadays for financing through borrowing in the agricultural sectors.
- Scientific support: Support should also exist at an advisory or even scientific level to address problems, such as the cases of bee diseases, in order to avoid the risks of total destruction. It is necessary to have specialized scientists in beekeeping who are readily available. This part should be undertaken jointly by the Ministry of Agriculture and the organised groups of beekeepers.
- Cooperation: Cooperation between beekeepers operating in the same area. Cooperation should involve both the treatment of diseases and seasonal enemies, in order to limit outbreaks of diseases and the loss of bee swarms. Cooperation should also be established in the distribution of products to the public. For example, the creation of a cooperative that promotes beekeeping and the products of a region.

Expectations

- Sustainability: The main expectation is the creation of a business that is economically viable that will withstand the pressures of both environmental and competition.
- Response: The consumer public does not know all the hive products. Some of them he treats with disbelief.
- Innovation: Creation of new products based on bee products.

Linings

- Basic Equipment: Beehives for the hospitality of bees. There are several options. Wooden, Plastic or a combination of the two.
- Honey laboratory equipment:
 - 1. Honey extractor: this machine extracts the honey from the honeycombs. Necessary for every beekeeper. It is available in various sizes. From 4 frames to 48 frames.







- 2. Metal tanks (stainlesteel) for the storage of honey before bottling. Their sizes range from 50L 4 tons.
- 3. Cooling chamber for the maintenance of honeycombs from wax moth (*Galleria mellonella*). The size ranges from a Horizontal Ice Cream Cabinet to a freezer room.
- 4. Freezer for storing pollen. Horizontal freezer without drawers or vertical freezer with drawers can be used.
- 5. Machine for melting honeycombs.
- 6. Frame wire-wiring device.
- 7. Washing machine of glass containers for honey jars.
- 8. Honey bottling machine: From simple system to fully automated.
- 9. Labeller: there are several sizes
- 10. Wax press for the construction of honeycombs. (Special case)
- 11. Micro-tools and micro-equipment: uniforms, gloves, honeycombs, scraper, electric frame fluidizer, smoker.









ANNEX I

List of Bee-friendly plants in Cyprus

Pollen Atlas of the Honey Flora of Cyprus

State General Laboratory, Ministry of Health

Department of Agriculture, Ministry of Agriculture, Rural Development and Environment

Num.	Family	Latin name	Local name in Greek
1.	Acanthaceae	Justicia adhatora	Ιουστικία, Πολυέλαιος
2.	Agavaceae	Agave americana	Ακάβη, Αθάνατος (Αλάς)
3.	Anacardiaceae	Schinus molle	Σχίνος η Μόλλειος (Αρτυμαθκιά)
4.		Pistacia lentiscus	Σχίνος
5.		Rhus coriaria	(Ρούδιν, Σουμάτζιη)
6.		Schinus terebinthifolius	Μαστιχόδεντρο (Μαστισσιά)
7.		Pistacia terebinthus	Τρεμιθιά
8.	Apocynaceae	Thevetia neriifolia	Θιβετιανή (Καμπανούλα)
9.	Bingnoniaceae	Tecomaria capensis	Τεκομάρια
10.	Boraginaceae	Heliotropium europaeum	Ηλιοτρόπιο (Κατσουνόχορτο, Βρωμόχορτο,
			Μπαστουνόχορτο)
11.		Echium vulgare	Έχιον (Μαννούιν, βοϊδόγλωσσο)
12.	Brassicaceae	Sinapis sp.	Σινάπι (Λαψάνα)
13.		Raphanus raphanistrum	Ραπανίδα (Αρκορέπανο)
14.		Erucaria alepina	Ερουκάρια (Κοτσιηνολαψάνα)
15.		Eruca sativa	Ρόκα
16.		Brassica oleracea	Μπρόκολο
17.		Sisymbrium officinalis	Συσίμπριο
18.	Cactaceae	Opuntia ficus indica	Φραγκοσυκιά (Παπουτσοσυτζιά)
19.	Caesalpiniaceae	Ceratonia siliqua	Χαρουπιά (Τερατσιά)
20.		Cercis siliquastrum	Κερκίδα, Δέντρο του Ιούδα
21.		Bauhinia variegata	Μποχίνια (Παθκιά του καμήλου)
22.	Capparidaceae	Capparis spinosa	Κάππαρη
23.	Caprifoliaceae	Viburnum tinus	Βιβούρνο
24.	Caryophylaceae	Silene vulgaris	Σιληνή (Τσακρίθκια, Στρουφούθκια)
25.	Cistaceae	Cistus sp.	Λαδανιά (Ξυσταρκά, Λεούτιν, Κλαδίν)
26.	Compositae (ή	Inula viscosa	Ακονιζιά (Κόνυζος)
27.	Asteraceae)	Centaurea hyalolepis	Κενταύριο (Ατρατζίδα, Τρισατσία)
28.		Ptilostemon chamaepeuce	Χαμαιπεύκη (Αρκολασμαρίν)
29.		Onopordum cyprium	Γαϊδουράγκαθο
30.		Phagnalon rupestre	Ασπροθύμαρο
31.		Echinops spinosissimus	Εχίνοπας (Κεφαλάγκαθος, Μουσκοκαύλιν,
0.7			Σαρατζιηνός)
32.		Sonchus oleraceus	Σόγχος (Τζιόγχος, Γαλατόχορτο)
33.		Jurinea cypria	Ιουριναία
34.		Helichrysum italicum	Αθάνατο, Κλάματα της Παναγίας, Λουλούδι της
			Παναγίας







35.		Taraxacum officinale	Αγριοράδικο
36.		Calendula arvensis	Καλεντούλα
37.		Chrysanthemum	Χρυσάνθεμο (Λάζαρος, Σιμιλλούδι)
		coronarium	
38.		Carthamus tenuis	(Χριστάγκαθο)
39.	Cucurbitaceae	Ecballium elaterium	Πικραγγουριά
40.		Citrullus lanatus	Καρπουζιά
41.	-	Cucurbita sp.	Κολοκυθιά
42.	Dipsacaceae	Pterocephalus multiflorus	Πτεροκέφαλος (Μαννουθκιά)
43.		Putoria calabrica	Πουτόρια (Λιζάριν, Ριζάρι)
44.	Ericaceae	Arbutus andrachne	Κόμαρος (Αντρουκλιά)
45.	Euphorbiaceae	Chrozophora tinctoria	Χρωζοφόρα
46.	Fagaceae	Castanea sativa	Καστανιά
47.	Gramminae (ή	Zea mays	Καλαμπόκι (Σιταροπούλλα)
	Poaceae)	-	
48.	Guttiferae (ή	Hypericum triquetrifolium	Υπερικό (Σουμάτζιη, Ψυλλίνα)
	Clusiaceae)		
49.	Hydrophyllaceae	Phacelia tanacetafolia	Φακελωτή
50.	Labiatae (ή Lamiaceae)	Rosmarinus officinalis	Δεντρολίβανο (Λασμαρί)
51.		Lavandula stoechas	Αγριολεβάντα (Μυροφόρα, Λαμπρή)
52.		Salvia sp.	Φασκομηλιά (Σπατζιά, Χαχομηλιά)
53.		Prasium majus	Φασσόχορτο (Μηλιάκος)
54.		Thymus sp.	Θυμάρι (Θρουμπί)
55.		Teucrium creticum	Τεύκριο (Αρκολασμαρίν)
56.		Teucrium kotschyanum	Τεύκριον
57.		Lavandula angustifolia	Λεβάντα
58.		Ocimum basilicum	Βασιλικός
59.	Lauraceae	Laurus nobilis	Δάφνη, Πικροδάφνη
60.	Leguminosae (ή	Calicotome villosa	Ασπάλαθος (Σπαλαθκιά)
61.	Fabaceae,	Parkisonia aculeata	Παρκισσόνια
62.	Papilionaceae)	Robinia pseudoacacia	Ψευδακακία
63.		Vicia tenuifolia	Αγριόβικος (Άσιερο)
64.		Astragalus lusitanicus	Αστράγαλος ο ανατολικός (Αγριορέβυθο, Πιφάνης)
		subsp. orientalis	
65.		Vicia sativa	Βίκος
66.		Vicia faba	Κουκιά
67.		Tipuana tipu - Macherium	Μαχαίριον
60		tipu Malilatus officinalis	MeXXX
68.		Melilotus officinalis	Μελίλωτος
69.	Lilianaa	Sophora japonica	Σοφόρα
70.	Liliaceae	Urginea maritima	Σκυλοκρεμμύδα (Αβρόσσιηλλα, Λαμπάδι,
71		Asphadalaus gastinus	Μουσκούνι) Ασφόδελος (Σπουρτούλλα)
71. 72.		Asphodelous aestivus Asphodelous fistulosus	Ασφοδελος (Σπουρτουλλα) Ασφόδελος ο κοίλος
73.		Asparangus stipularis	Σπαράγγι (Αγρελιά)
74.		Muscari comosum	Αγριοϋάκινθος (Σταφύλι του κούκου)
75.	Makasasa	Althon ross	(Σκορτάλλι)
76.	Malvaceae	Althea rosa	Δεντρομολόχα
77.		Malva sylvestris	Μολόχα
78.	Maliana	Hibiscus rose	Ιβίσκος
79.	Meliaceae	Melia azedarah	Μελιά (Λουλουθκιά)







80.	Mimosaceae	Acacia salygna	Ακακία
		(cyanophylla)	
81.		Albizia jullibrissin	Αλπίτσια η ροδομέταξη
82.		Prosopis farcta	Προσωπίς (Σκουρούμανθος)
83.	Myoporaceae	Myoporum tenuifolium	Μυόπορο
84.	Myrtaceae	Myrtus communis	Μυρτιά (Μερσινιά)
85.	,	Eucalyptus gomphocephala	Ευκάλυπτος
86.		Eucalyptus torquata	Ευκάλυπτος η Στρεπτοφόρος
87.		Callestemon lanceolatus	Καλλιστήμων
88.	Oleaceae	Olea europaea	Ελιά
89.	Oxilidaceae	Oxalis pes-caprae	Οξαλίδα (Ξυνούδι, Ξυνάκι)
90.	Palmae (ή Arecaceae)	Phoenix sp.	Φοίνικας
91.	Papaveraceae	Papaver rhoeas	Παπαρούνα
92.	Pauloniaceae	Paulownia sp.	Παουλώνια
93.	Polygonaceae	Polygonum aviculare	Πολυγόνατος, Πολύκομπος
	70	(equisetiforme)	,
94.	Proteaceae	Grevillea robusta	Γρεβιλλέα
95.	Punicaceae	Punica granatum	Ροδιά
96.	Ranunculaceae	Anemone sp.	Ανεμώνη, Λαλές
97.	Rosaceae	Sarcopoterium spinosum	Αστοίβη (Μάζα)
98.		Crataegus azarolus	Κράταιγος (Μοσφηλιά)
99.		Prunus sp.	Αμυγδαλιά, Κερασιά, Καϊσιά, Βερικοκιά, Δαμασκηνιά
100.		Eriobotrya japonica	Μουσμουλιά (Μεσπιλιά)
101.		Rubus sanctus	Βάτος
102.		Pyrus malus	Μηλιά
103.		Rosa sp.	Τριανταφυλλιά, Αγριοτριανταφυλλιά
104.		Pyracantha coccinea	Πυράκανθα
105.	Rutaceae	Citrus sinensis	Πορτοκαλιά
106.		Citrus medica	Κίτρο
107.		Citrus aurantium	Νεραντζιά (Κιτρομηλιά)
108.	Sapindaceae	Dodonaea viscosa	Δωδώνεια
109.	Scrofulariaceae	Verbascum sinuatum	Φλώμος (Τσούνα)
110.	Sterculiaceae	Brachychiton diversifolius	Στερκούλια
111.	Tamaricaceae	Tamarix hampeana	Αλμυρίκι (Μυριτζιά, Αρμυρίδι)
112.	Thymelaeaceae	Thymelaea hirsuta	Θυμελαία (Φυτιλίτζιη)
113.	Umbelliferae (ή	Foeniculum vulgare	Μάραθος
114.	Apiaceae)	Ammi sp.	(Χαλαβάνι, Καραγάνι)
115.		Ferula communis	Νάρθηκας (Αναθρήκα, Βανούκα)
116.		Smyrnium olusatrum	Σμύρνιο (Αρκοσέλλινο)
117.	Urticaceae	Urtica sp.	Τσουκνίδα (Ξυνίθθα)
118.	Verbenaceae	Vitex agnus-castus	Αλυγαριά (Αγνιά)
119.	Zygophyllaceae	Tribulus terrestris	Τριβόλι
120.		Fagonia cretica	Φαγόνια









ANNEX II

Comparison between EU Member States

	No colonies	No beekeepers	Mean no	Mean no
	(Percentage of total)	(Percentage of total)	colonies/beekeepers	colonies/km
Austria	367 583 (2.7%)	24 453 (4.0%)	15.0	4.4
Belgium	110 000 (0.8%)	10 000 (1.6%)	11.0	3.6
Bulgaria	613 262 (4.4%)	27 477 (4.4%)	22.3	5.5
Cyprus	40 066 (0.3%)	552 (0.1%)	72.6	4.3
Czech Republic	517 300 (3.7%)	46 600 (7.5%)	11.1	6.6
Denmark	170 000 (1.2%)	5 000 (0.8%)	34.0	3.9
Estonia	42 000 (0.3%)	3 080 (0.5%)	13.6	1.0
Finland	37 500 (0.3%)	2 500 (0.4%)	15.0	0.1
France	1 346 575 (9.7%)	69 237 (11.2%)	19.5	2.5
Germany	680 000 (4.9%)	89 000 (14.4%)	7.6	1.9
Greece	1 5000 000 (10.8%)	20 000 (3.2%)	75.0	11.4
Hungary	995 812 (7.2%)	17 556 (2.8%)	56.7	10.7
Ireland	24 000 (0.2%)	2 200 (0.4%)	10.9	0.3
Italy	1 127 000 (8.1%)	70 000 (11.3%)	16.1	3.7
Kosovo	70 6664 (0.5%)	6 453 (1.0%)	11.0	6.5
Latvia	64 133 (0.5%)	3 500 (0.6%)	18.3	1.0
Lithuania	1117 977 (0.9%)	4 565 (0.7%)	25.8	1.8
Netherlands	80 000 (0.6%)	8 000 (1.3%)	10.0	1.9
Norway	50 000 (0.4%)	3 000 (0.5%)	16.7	0.1
Poland	1 122 396 (8.1%)	44 951 (7.3%)	25.0	3.6
Portugal	580 065 (4.2%)	17 291 (2.8%)	33.6	6.3
Romania	963 342 (7.0%)	41 794 (6.8%)	23.1	4.0
Slovakia	246 214 (1.8%)	15 709 (2.5%)	15.7	5.0
Slovenia	156 178 (1.1%)	9 100 (1.5%)	17.2	7.7
Spain	2 498 003 (18.0%)	24 251 (3.9%)	103.0	4.9
Sweden	125 000 (0.9%)	12 000 (1.9%)	10.4	0.3
United Kingdom	200 000 (1.4%)	40 000 (6.5%)	5	1.3
Europe	13 845 070 (100%)	618 269 (100%)	22.4	4.2

Livestock (honeybee colonies), number of beekeepers, distribution and density of honeybee colonies in the European Union in 2010.

The minimum and the maximum are reported in bold in each column.

Source: Chauzat M-P, Cauquil L, Roy L, Franco S, Hendrikx P, et al. (2013) Demographics of the European Apicultural Industry. PLoS ONE 8(11): e79018. doi:10.1371/journal.pone.0079018

Operation Size	Beekeeper ctivity
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	<50 colonies	51-150 colonies	151-300 colonies	>300 colonies	Profession al	Non- profession al	Part-time beekeeper s	Hobby beekeepe rs
Austria	NS	NS	NS	NS	NS	NS	NS	NS
Belgium	NS	NS	NS	NS	1	99	0	99
Bulgaria	NS	NS	NS	NS	1.4	98.6	0	98.6
Cyprus	14	60	20	6	9	91	NS	NS
Czech Republic	93.8	6	0.2	0	0.2	99.8	15	85

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Denmark	90	6	2	2	2	98	8	90
Estonia	75	20	4.9	0.1	1	99	29	70
Finland	90	NS	NS	0.4	4	96	14	82
France	93	4	2	1	3	97	7	90
Germany	98	NS	NS	NS	0.1	99.9	19.9	80
Greece	45	35	14.8	5.2	39.5	60.5	NS	NS
Hungary	20	73	5	2	7	93	73	20
Ireland	95	4	1	1	1	99	4	95
Italy	60	20	10	10	10	90	20	70
Kosovo	NS	NS	NS	NS	88.4	11.6	7.2	4.3
Latvia	83	14	2.5	0.5	3	97	14	83
Lithuania	NS	NS	NS	NS	3.1	96.9	NS	NS
Netherlan ds	95	5	1	0	1	99	5	94
Norway	94	5	1	0	1	99	17	82
Poland	90	9.5	0.4	0.1	0.5	99.5	NS NS	NS
Portugal	88	9	2	1	3	97	NS	NS
Romania	56.6	23.9	10.4	9.1	27	73	23.8	49.2
Slovakia	95	4	0.7	0.3	1	99	5	94
Slovenia	96.5	2.9	0.5	0.1	NS	NS	NS	NS
Spain	NS	NS	22.9	NS	22.9	70.5	NS	NS
Sweden	89	7	3	1	1	99	10	89
United Kingdom	96.5	1	1	1	1	99	NS	NS
Europe	78	16	4	2	9.3	90.7	15.1	76.4

Description of the different types of beekeeper activities and sizes of the apiaries in Europe in 2010 (percentage).

 $\it NS: Not specified. The minimum and the maximum are reported in bold in each column.$

Source: Chauzat M-P, Cauquil L, Roy L, Franco S, Hendrikx P, et al. (2013) Demographics of the European Apicultural Industry. PLoS ONE 8(11): e79018. doi:10.1371/journal.pone.0079018

	Honey production (tons)	Honey production (tons/100k m²)	Honey production (tons/100 colonies)	Pollen production (kg)	Royal jelly production (kg)	Queen production (number)	Swarm production (number)
Austria	6 000	7.2	1.6	NS	NS	NS	NS
Belgium	NS	NS	NS	NS	NS	NS	NS
Bulgaria	10 595	9.5	1.7	NS	NS	55 00	10 000
Cyprus	590	6.4	1.5	893	7.5	1 000	NS
Czech Republic	7 455	9.5	1.4	NS	NS	60 000	NS
Denmark	3 000	7.0	1.8	500	5	20 000	2 000
Estonia	1 100	2.5	2.6	7 000	NS	NS	NS
Finland	1 500	0.4	4	1 000	NS	5 000	7 000
France	20 000	3.7	1.5	NS	7 000	NS	NS
Germany	20 441	5.7	3.0	NS	NS	NS	NS
Greece	15 00	11.4	1	NS	NS	NS	NS
Hungary	18 400	19.8	1.8	100 00	NS	45 000	1 000
Ireland	150	0.4	1.0	NS	NS	500	100
Italy	23 000	7.6	2.0	NS	4 000	350 000	NS







Kosovo	1 100	10.1	1.6	NS	NS	20 000	NS
Latvia	676	1.0	1.1	NS	NS	20 000	NS
Lithuania	1 110	1.7	0.9	NS	NS	NS	NS
Netherlands	400	1.0	0.5	NS	NS	NS	ND
Norway	1 500	0.4	3	NS	NS	12 000	5 000
Poland	12 467	4.0	1.1	NS	NS	85 000	30 000
Portugal	7 426	8.1	1.3	NS	NS	NS	NS
Romania	22 224	9.3	2.3	100	3	40 000	85 000
Slovakia	3 160	6.4	1.3	100 000	30	75 000	50 000
Slovenia	1 700	8.4	1.1	NS	NS	26 000	NS
Spain	33 084	6.5	1.3	761 540	NS	NS	NS
Sweden	3 500	0.8	2.8	NS	NS	NS	NS
United	6 000	4.0	3	NS	NS	4 500	5 000
Kingdom	6 000	4.0	5	INS	INS	4 300	3 000
Europe	221 678	4.8	1.6				

European production of bee products in 2010

NS: Not specified. The minimum and the maximum are reported in bold in each column

Source: Chauzat M-P, Cauquil L, Roy L, Franco S, Hendrikx P, et al. (2013) Demographics of the European Apicultural Industry. PLoS ONE 8(11): e79018. doi:10.1371/journal.pone.0079018









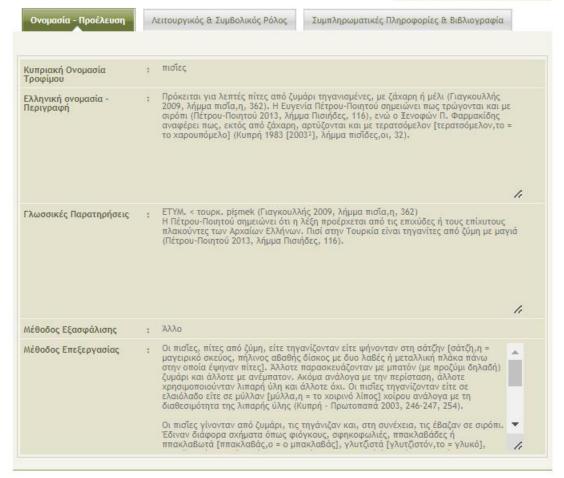
ANNEX III

Traditional Cypriot Recipes using honey

Τίτλος πισί(δ)ες (πισί(δ)ες),οι

Οι πισίες σερβίρονταν με ζάχαρη, με μέλι ή με χαρουπόμελο. Ήταν ένα συνηθισμένο παρασκεύασμα από ζυμάρι που παρασκευαζόταν σε πολλές περιστάσεις. Παρασκευάζονταν ως δώρο προς τη λεχώνα μετά τον τοκετό αλλά και σαν δώρο της λεχώνας προς τους φίλους και τους συγγενείς που της ευχήθηκαν για το νεογέννητο (Λεοντίου 1983, 176; Κυπρή - Πρωτόπαπα 2003, 167). Ακόμα οι πισίες ήταν μέρος των γλυτζιστών που παρασκευάζονταν στη βάφτιση του νεογέννητου και στον γάμο (Κυπρή - Πρωτοπαπά 2003, 169, 175, 217).









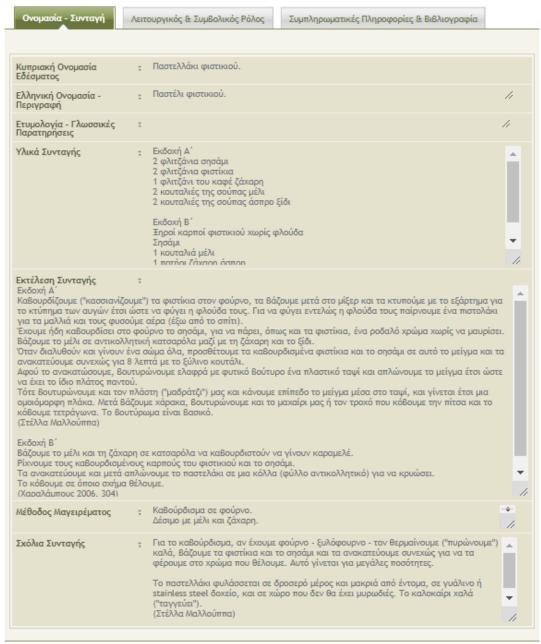


Τίτλος

Παστελλάκι φιστικιού

Παραδοσιακό γλυκό από αγνά και θρεπτικά υλικά της κυπριακής κουζίνας. Το παστελλάκι ήταν ένα από τα χαρακτηριστικά εδέσματα που αγοράζονταν από τις υπαίθριες αγορές των πανηγυριών.













Μουστοκούλουρα κρασοχωρίων με μελι

Τεχνική Σχολή Λάρνακας

Υλικά - (για 12 μερίδες, περίπου 24 κουλουράκια)

4 φλιτζάνια (500 γρ.) αλεύρι για όλες τις χρήσεις 9 κουταλιές (125 γρ.) ελαιόλαδο 4 κουταλιές (65 γρ.) σταφυλόμελο 4 κουταλιές (65 γρ.) μέλι 1/2 φλιτζάνι (120 γρ.) χυμό σταφυλιού (κόκκινο) 1 κουταλάκι (5 γρ.) αμμωνία (σκόνη)

2 κουταλάκια (8 γp.) «baking powder» 1 κουταλάκι (5 γp.) κανέλα αλεομένη 1/4 κουταλάκι γλυκού «mixed spices»

3 κουταλιές ζάχαρη σκούρα

1 κουταλιά κακάο

Παρασκευή

Ανάμειγνύουμε όλα τα υλικά μαζί και ζυμώνουμε. Αφήνουμε τη ζύμη να ξεκουραστεί για 30 λεπτά και στη συνέχεια πλάθουμε μικρές στενόμακρες λωρίδες, στις οποίες δίνουμε το σχήμα κουλουριού.

Ψήνουμε σε προθερμασμένο φούρνο στους 170° για 20-30 λεπτά.

Άλλα παρασκευάσματα από χυμό σταφυλιού

Σταφυλόμελο: Μπορούμε να το χρησιμοποιήσουμε ως τρόφιμο για τόνωση. Περιέχει φαινόλες, ιχνοστοιχεία, βιταμίνες, αμινοξέα, ωμέγα 3 και ωμέγα 6 λιπαρά οξέα τα οποία είναι απαραίτητα για την υγεία του ανθρώπινου οργανισμού. Δεν περιέχει πρόσθετη ζάχαρη και μπορεί να χρησιμοποιηθεί στη ζαχαροπλαστική καθώς μπορεί να αντικαταστήσει τη ζάχαρη.

Φρέσκος χυμός σταφυλιού: Δεν είναι απλώς ένα υπέροχο δροσιστικό ρόφημα, αλλά και ένα ευεργετικό ελιξίριο αφού περιέχει όλα τα θρεπτικά συστατικά του σταφυλιού σε μορφή που χωνεύεται και αφομοιώνεται εύκολα από τον οργανισμό. Είναι προτιμότερο να καταναλώνουμε φρέσκο χυμό σταφυλιού, ο οποίος περιέχει κάλιο, βιταμίνες Α, Β και C, αντιοξειδωτικές ουσίες που ονομάζονται φλαβονοειδή και θεωρείται πως συμβάλλουν στην πρόληψη χρόνιων νοσημάτων. Η ρεσβερατρόλη, που βρίσκεται στις φλούδες, αποτελεί το «διασημότερο» συστατικό του σταφυλιού.



Πηγή: Το έντυπο μαγειρικής «Ο τόπος μας ...στο πιάτο σας», το οποία εκδόθηκε από τη Διαχειριστική Αρχή του ΠΑΑ 2014-2020 του Υπουργείου Γεωργίας, Αγροτικής Ανάπτυξης και Περιβάλλοντος σε συνεργασία με τις Τεχνικές Σχολές του Υπουργείου Παιδείας, Πολιπισμού, Αθληπισμού και Νεολαίας. Στο έντυπο περιλαμβάνονται γνωστές και διαχρονικές συνταγές, αλλά και ξεχασμένες παραδοσιακές συνταγές σε μοντέρνα έκδοση, που δίνουν έμφαση στα παραδοσιακά τοπικά προτόντα.

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Τίτλος

Αναρόκρεμα με μέλι και καρύδια

Επιδόρπιο των νεότερων χρόνων, βασισμένο στην κυπριακή εκδοχή του τυριού μυζήθρα.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος Συμπληρωματικές Πληροφορίες & Βιβλιογραφία	
Κυπριακή Ονομασία Εδέσματος	: Αναρόκρεμα με μέλι και καρύδια.	
Ελληνική Ονομασία - Περιγραφή	: Μυζηθρόκρεμα με μέλι και καρύδια.	h
Ετυμολογία - Γλωσσικές Παρατηρήσεις		
Υλικά Συνταγής	 ¾ κιλού αναρή ανάλατη 250γρ. κρέμα γάλακτος ½ φλιτζάνι γάλα φρέσκο ¼ φλιτζανιού ροδόσταγμα 7-8 κ.σ. μέλι 2 κ.σ. ζάχαρη άχνη 1 φλιτζάνι καρύδια χοντροκομμένα Κανέλα 	*
Εκτέλεση Συνταγής	 Αλείφουμε τα φύλλα κρούστας με ελαιόλαδο, τα βάζουμε λίγα λίγα σε ένα ταψί και τα ψήνουμε σε φούρνο μέχρι να ροδοκοκκινίσουν. Αφού ροδοκοκκινίσουν, τα θρυματίζουμε σε μια λεκάνη. Λιώνουμε πολύ καλά την αναρή και τη χτυπάμε μαζί με την κρέμα γάλακτος. Διαλύουμε 3-4 κ.σ. μέλι στο γάλα και τα προσθέτουμε στο μείγμα της αναρής. Προσθέτουμε την κανέλα, τη ζάχαρη και το ροδόσταγμα και χτυπάμε πολύ καλά όλα τα υλικά μέχρι να γίνουν ένας παχύρευστος χυλός. Προσθέτουμε στο χυλό τα ¾ του φλιτζανιού από τα χοντροκομμένα καρύδια και ανακατεύουμε ελαφρά. Σε μια πιατέλα απλώνουμε τα μισά φύλλα που θρυματίσαμε και τα ραντίζουμε με 2 	* * * * * * * * * * * * * * * * * * *
Μέθοδος Μαγειρέματος	: //	
Σχόλια Συνταγής		1

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Τίτλος

Χοιρινό φλαμαντζέρι με θυμαρίσιο μέλι

Κυρίως πιάτο μοντέρνας υφής, φτιαγμένο με υλικά της παραδοσιακής κυπριακής κουζίνας.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος	Συμπληρωματικές Πληροφορίες & Βιβλιογραφία					
Κυπριακή Ονομασία Εδέσματος	: Χοιρινό φλαμαντζέρι με θυμαρί	σιο μέλι.					
Ελληνική Ονομασία - Περιγραφή	: Χοιρινό φλαμαντζέρι με θυμαρί	: Χοιρινό φλαμαντζέρι με θυμαρίσιο μέλι.					
Ετυμολογία - Γλωσσικές Παρατηρήσεις	:	:					
Υλικά Συνταγής	 1 κιλό χοιρινό φλαμαντζέρι 4 κουταλιές θυμαρίσιο μέλι 2 πράσινα μήλα Τροόδους 8 μικρές πατάτες 4 κλωναράκια από φρέσκο λασ 12 φρέσκα αγρέλια (άγρια σπα 4 λεπτές φέτες καπνιστό χοιροι ½ ποτήρι ελαιόλαδο Λίγο αλάτι Λίγο πιπέρι 	ράγγια)	^ / ₁				
Εκτέλεση Συνταγής	Το βάζουμε σε ταψί μαζί με τα Ψήνουμε σε χαμηλή θερμοκρασ Πλένουμε καλά τις πατάτες και ρίχνουμε λίγα φυλλαράκια από με λίγο ελαιόλαδο. Βάζουμε τις πατάτες στο φούρν Ψήνουμε τα αγρέλια σε ζεστό α		1				
Μέθοδος Μαγειρέματος	: Ψήσιμο σε φούρνο. Βράσιμο.		11				
Σχόλια Συνταγής	: Το κρέας δεν πρέπει να ψηθεί γ (Χριστιάνα Βουζούνη, Μαγειρεύ	για περισσότερο από 1½ ώρα, για να διατηρηθεί ζουμερ ω Κυπριακά 2012-2013).	oó //				

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Τίτλος **Πισίες δερυνειώτικες**

Παλαιότερα παρασκεύαζαν τις πισίες κυρίως όταν έσφαζαν τον οικόσιτο χοίρο, αφού τις τηγάνιζαν με το λίπος του. Τις πισίες τις έφτιαχναν επίσης σε γιορτές, καθώς ήταν ένα από τα Βασικά παραδοσιακά γλυκά.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος	Συμπληρωματικές Πληροφορίες & Βιβλιογραφία
Κυπριακή Ονομασία Εδέσματος	: Πισίες δερυνειώτικες.	
Ελληνική Ονομασία - Περιγραφή	: Τηγανητές πίτες με μέλι. Συνταγ	νή από τη Δερύνεια Αμμοχώστου.
Ετυμολογία - Γλωσσικές Παρατηρήσεις	:	
Υλικά Συνταγής	½ κιλό αλεύρι χωριάτικο 1/3 ποτηριού ηλιέλαιο 1 ποτήρι νερό χλιαρό Λίγο αλάτι (περίπου ¼ κουταλά Λάδι για τηγάνισμα Μέλι Κανέλα αλεσμένη	κι του γλυκού) •
Εκτέλεση Συνταγής	χέρια μας). Προσθέτουμε το χλιαρό νερό κα	
Μέθοδος Μαγειρέματος	: Τηγάνισμα. Μέλωμα.	
Σχόλια Συνταγής	 Παλιά για το τηγάνισμα χρησιμο 	ποιούσαν μίλλα (λίπος) του χοίρου, αφού δεν είχαν στη κάποιοι που δεν είχαν μέλι έβαζαν ζάχαρη (Μιχαήλ Κυπριακά 2013-2014).







Τίτλος

Μελόκρεμα

Απλό γλυκό με αγνά υλικά της κυπριακής κουζίνας. Η συνταγή προέρχεται από τα Πυργά της επαρχίας Λάρνακας και φτιαχνόταν κατά τη δεκαετία του 1950. Την εποχή εκείνη, λόγω φτώχειας, οι άνθρωποι δεν είχαν στη διάθεσή τους πολλά υλικά, και χρησιμοποιούσαν κυρίως αυτά που παρήγαν.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος	Συμπληρωματικές Πληροφορίες & Βιβλιογραφία	
Κυπριακή Ονομασία Εδέσματος	: Μελόκρεμα.		
Ελληνική Ονομασία - Περιγραφή	; Κρέμα με μέλι και καρύδια.	//	
Ετυμολογία - Γλωσσικές Παρατηρήσεις	:	//	
Υλικά Συνταγής	6 κουταλιές μέλι ½ ποτήρι καρυδόκουννες (καρυ ½ κουταλάκι γλυκάνισο αλεσμέ	3 κουταλιές αλεύρι ή άνθος αραβοσίτου	
Εκτέλεση Συνταγής	Βάζουμε σε μια κατσαρόλα το μ και τοποθετούμε στη φωτιά. Μόλις Βράσει το μείγμα μας, ρίν ανακατεύουμε μέχρι να πήξει η Προσθέτουμε τις καρυδόκουννε Βάζουμε την κρέμα στο ψυγείο	Διαλύουμε το αλεύρι ή το άνθος αραβοσίτου σε λίγο από το νερό. Βάζουμε σε μια κατσαρόλα το μέλι, το γλυκάνισο, το ροδόσταγμα και το υπόλοιπο νερό, και τοποθετούμε στη φωτιά. Μόλις βράσει το μείγμα μας, ρίχνουμε το διαλυμένο αλεύρι ή άνθος αραβοσίτου και ανακατεύουμε μέχρι να πήξει η κρέμα μας. Προσθέτουμε τις καρυδόκουννες και σερβίρουμε σε μπολάκια. Βάζουμε την κρέμα στο ψυγείο να παγώσει καλά. (Θεοχάρης Χριστοδούλου, Μαγειρεύω Κυπριακά 2013-2014)	
Μέθοδος Μαγειρέματος	: Βράσιμο.	//	
Σχόλια Συνταγής	:		







Τίτλος

Γλύκισμα με τυρί και μέλι

Σύγχρονη συνταγή για επιδόρπιο, στο οποίο διασκευάζονται γνωστές γεύσεις της κυπριακής κουζίνας. Η αναρή αναμειγνύεται με τα αυγά και το αλεύρι, σχηματίζοντας ζύμη που τηγανίζεται σε κουλούρες. Πριν σερβιριστούν, τοποθετούνται σε ζεστό μέλι ώστε να το απορροφήσουν.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος	Συμπληρωματικές Πληροφορίες & Βιβλιογραφία	
Κυπριακή Ονομασία Εδέσματος	: Γλύκισμα με τυρί και μέλι.		
Ελληνική Ονομασία - Περιγραφή	: Γλυκό με τυρί και μέλι.	Γλυκό με τυρί και μέλι.	
Ετυμολογία - Γλωσσικές Παρατηρήσεις	÷	,	
Υλικά Συνταγής		2-3 φύλλα δάφνης ½ φλιτζάνι μέλι	
Εκτέλεση Συνταγής	Χτυπάμε την αναρή μέχρι να μο Φτιάχνουμε ένα μικρό ζυμάρι κ Ανοίγουμε με κάθε κομμάτι μια με ένα φύλλο δάφνης, μέχρι νο Ζεσταίνουμε το μέλι και βουτάμ Τις αφήνουμε για 30° πριν τις ο	Κοσκινίζουμε το αλεύρι σε μια λεκάνη. Χτυπάμε την αναρή μέχρι να μαλακώσει και τη ρίχνουμε στο αλεύρι, μαζί με το αυγό. Φτιάχνουμε ένα μικρό ζυμάρι και το χωρίζουμε στα τέσσερα. Ανοίγουμε με κάθε κομμάτι μια πίτα (κουλούρα) και τις τηγανίζουμε με βούτυρο, μαζί με ένα φύλλο δάφνης, μέχρι να ροδοκοκκινίσουν. Ζεσταίνουμε το μέλι και βουτάμε μέσα τις πίτες, ώστε να το απορροφήσουν. Τις αφήνουμε για 30΄ πριν τις σερβίρουμε. (Νίκος Βασιλειάδης και Σαββούλλα Μενελάου, Μαγειρεύω Κυπριακά 2014)	
Μέθοδος Μαγειρέματος	: Τηγάνισμα. Μέλωμα.		





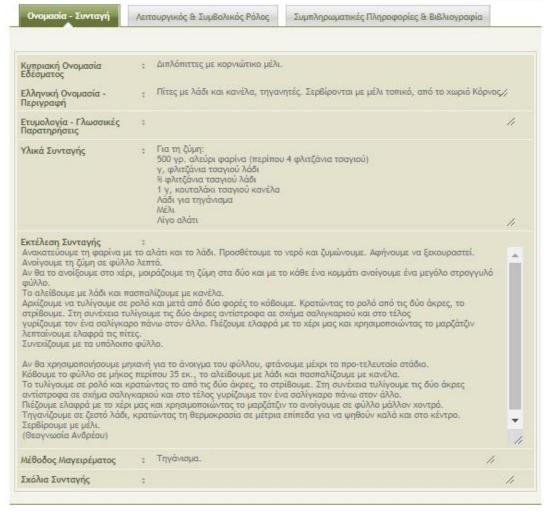


Τίτλος

Διπλόπιττες με κορνιώτικο μέλι

"Κρατώντας το ρολό από τις δύο άκρες, το στρίβουμε. Στη συνέχεια τυλήγουμε τις δύο άκρες αντίστροφα σε σχήμα σαλιγκαριού και στο τέλος γυρίζουμε τον ένα σαλίγκαρο πάνω στον άλλο." (Θεσγνωσία Ανδρέου, Κόρνος)









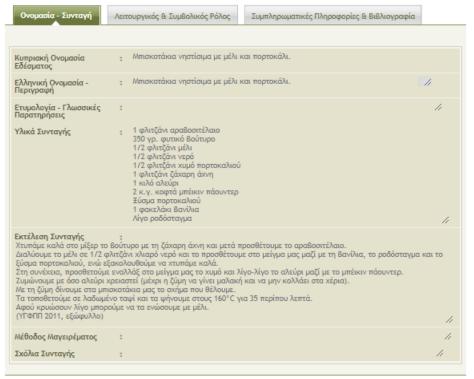


Τίτλος

Μπισκοτάκια νηστίσιμα με μέλι και πορτοκάλι

Αγνές πρώτες ύλες, όπως χυμός και το ξύσμα πορτοκαλιού, καθώς και το μέλι, κάνουν τα νηστίσιμα αυτά μπισκότα ιδιαίτερα νόστμα.











Τίτλος

Τηγανίτες με μέλι και παστά φρούτα

Στην πρωτότυπη αυτή συνταγή οι τηγανίτες, γλυκό της σύγχρονης διεθνούς κουζίνας, αποκτούν καθαρά τοπικό χαρακτήρα. Η γέμισή τους αποτελείται από αγνά υλικά της κυπριακής φύσης: σύκα παστά, σταφιδάκια, μέλι, χαρουπόμελο και αμύγδαλα.



Ονομασία - Συνταγή	Λειτουργικός & Συμβολικός Ρόλος	Συμπληρωματικές Πληροφορίες & Βιβλιογραφία
Κυπριακή Ονομασία Εδέσματος	: Τηγανίτες με μέλι και παστά φρούτα.	
Ελληνική Ονομασία - Περιγραφή	: Τηγανίτες με μέλι και αποξηραμένα φρούτα.	
Ετυμολογία - Γλωσσικές Παρατηρήσεις	 Μέλι αποκαλούν στην Κύπρο και το χαρουπόμελο, όπως επίσης και το έψημα (βλ. κατηγορία "Συνταγές", λήμμα "Τερτζιελλούθκια ή κουλλουρούθκια με το μέλι (τερατσόμελο)". 	
Υλικά Συνταγής	 500 γραμμάρια αλεύρι σκληρό ½ ποτήρι ελαιόλαδο Νερό για ζύμωμα 1 πρέζα αλάτι Για τη γέμιση: 5 σύκα παστά (αποξηραμένα) 20 σταφιδάκια (σταφίδες) 5 κούννες αμυγδάλου (αμυγδαλά 2 κουταλιές μέλι 1 κουταλάκι τερατσόμελο (χαροι 	
Εκτέλεση Συνταγής	 Βάζουμε το αλεύρι μας σε ένα μπολ με το λάδι και ρυζιάζουμε (τρίβουμε με τα χέρια). Προσθέτουμε αλάτι και νερό και ζυμώνουμε, μέχρι να σχηματιστεί μαλακή ζύμη. Την αφήνουμε να ξεκουραστεί για ½ ώρα. Κόβουμε τα σύκα σε μικρά κομμάτια, τα βάζουμε στη φωτιά, σε ένα τηγάνι με λίγο νερό, και τα αφήνουμε να μαλακώσουν. Προσθέτουμε τα σταφιδάκια, τις κούννες, το μέλι και το τερατσόμελο και τα αφήνουμε να καραμελώσουν όλα μαζί. Ανοίγουμε τη ζύμη μας σε φύλλο και το κόβουμε σε μικρές πίτες. Τις τηγανίζουμε. Παίρνουμε μία-μία τις πίτες, βάζουμε τη γέμιση και τις διπλώνουμε. (Ιωάννης Αγησιλάου, Μαγειρεύω Κυπριακά 2013-2014) 	
Μέθοδος Μαγειρέματος	· Τηγάνισμα.	









ΤΡΥΠΗΤΕΣ

ПРОХҮМІ

Υλικά

Λίγο αλεύρι Νερό Μια πρέzα αλάτι

ZYMH

Υλικά

2 κιλά αλεύρι χωριάτικο Νερό όσο πάρει Μέλι, τερατσόμελο Λίγο λάδι για το τηγάνισμα

Μέθοδος Παρασκευής:

Για το προχύμι

- Σε μια μπασίνα βάzουμε το αλεύρι, το αλάτι και λίγο νερό.
- 2 Τα πλάθουμε ώστε να ενωθούν πολύ καλά και σταδιακά για 2 ημέρες βάzουμε λίγο αλεύρι και zυμώνουμε συνέχεια. Έπειτα, αφήνουμε τη zύμη να ξεκουραστεί.

Για τη Ζύμη

- Ξεχωριστά σε μια λεκάνη βάzουμε τα 2 κιλά αλεύρι, νερό όσο πάρει και το προzύμι.
- Τα ανακατεύουμε προσεκτικά μέχρι να ενωθούν όλα μαzi.
- 3 Όταν ο χυλός μας είναι έτοιμος, τον αφήνουμε να ξεκουραστεί.
- 4 Παίρνουμε ένα τηγάνι, βάzουμε πολύ λίγο λάδι να zεσταθεί και μετά, με τη βοήθεια μιαs κουτάλαs, παίρνουμε λίγο χυλό και κάνουμε τις πίτες
- 5 Σερβίρουμε με μέλι ή τερατσόμελο ή zάχαρη.