

SPECIFICATION

1.1. Name

'Maraş Tarhanası'

1.2. Description of the agricultural product or foodstuff

'Maraş Tarhanası' is a fermented food that is a dried mixture of cooked wheat, yogurt, thyme and salt, with black sesame, pepper, walnut and almond. Wheat, yogurt, salt and thyme are obligatory, and black sesame, pepper, walnut, almond are optional. Black sesame, pepper, spice, walnut, almond can be added according to personal preference. Pepper, spice, walnut, almond are optionally added between 20-30%, black sesame optional range is 5-20% per 100 kg. It has a flat shape and has thin sheets. It is crispy.



Figure 1. *'Maraş Tarhanası'*

'Maraş Tarhanası' production is seasonal as it is dried under the sun but it can be eaten all year long. *'Maraş Tarhanası'* can be consumed in different ways or can be eaten on its own.

The two main ingredients that comprise *'Maraş Tarhanası'* are yogurt and cracked wheat.

Other tarhanas in Turkey except *'Maraş Tarhanası'* are generally in powder form and this powdered variety of tarhana is usually made from flour and yogurt and they are only used to make tarhana soup, and can not be eaten solely, but *'Maraş Tarhanası'* can be.

'Maraş Tarhanası' has the nutritional content derived from naturally occurring metabolic elements found in yogurt and cracked wheat. In the process of making *'Maraş Tarhanası'*, the yogurt is not cooked; thus natural pro-biotic cultures are preserved. The natural fermentative yeasts derived from yogurt and wheat enrich the aromatic taste of *'Maraş Tarhanası'*.

It has functional properties with its natural prebiotic additives coming from cracked wheat.

It provides a combination of vegetable and animal proteins, containing approximately 370 calories in every 100 grams of '*Maraş Tarhanası*'.

Different forms of '*Maraş Tarhanası*' allow it to be used in a number of ways.

'*Maraş Tarhanası*' is dried in the sun in paper-thin layers (in ovens if the weather conditions are not suitable).

Physical characteristics : '*Maraş Tarhanası*' has a production standard of 1 mm to 3 mm as a stand-alone snack. It is crispy and dried. Those produced only for soup can be produced thicker upon request.

Thickness: 1 mm to 3 mm

Length: There is no absolute length range. Dried tarhana is broken and shortened.

Form: According to its fracture, it is a structure with edges of an undefined shape.

Color: Varies from light cream to dark cream

Organoleptic characteristics:

'*Maraş Tarhanası*' has a more pronounced sour taste than average to due to the fermentation process of the yogurt it contains. Depending on the temperature when it has been produced it can be more or less sour.

This fermentation brings out the unique smell and taste of the food, namely its aroma.

'*Maraş Tarhanası*' has a pleasant scent arising from the mixture of dried fermented yogurt and thyme.

Chemical characteristics:

Composition of 100 grams of '*Maraş Tarhanası*':

Parameters	Maximum	Minimum
Protein	16.77%	13.23%
Carbohydrate	72.75%	67.67%
Fat	4.99%	1.7%
Cellulose	5.32%	3.12%

Moisture	9.13%	6.24%
Salt	3%	0.00%
pH	3.7	2.79
Acidity	40.85%	17.75%
Lactic Acidity	7%	0.5%

1.3. Definition of the geographical area

Kahramanmaraş is located in the eastern part of the Mediterranean Region in Turkey between the latitude of 37°35'4.92"N and longitude of 36°55'35.08"E.

Kahramanmaraş has a Mediterranean climate.

The center of Kahramanmaraş is located at the foot of Ahir Mountain. Kayseri, Sivas, and Malatya are located north of the city, with Osmaniye and Gaziantep to the south. The province has a total area of 14.519 km² and a population of approximately 1.2 million people (2019). The altitude of Kahramanmaraş is 568 m.

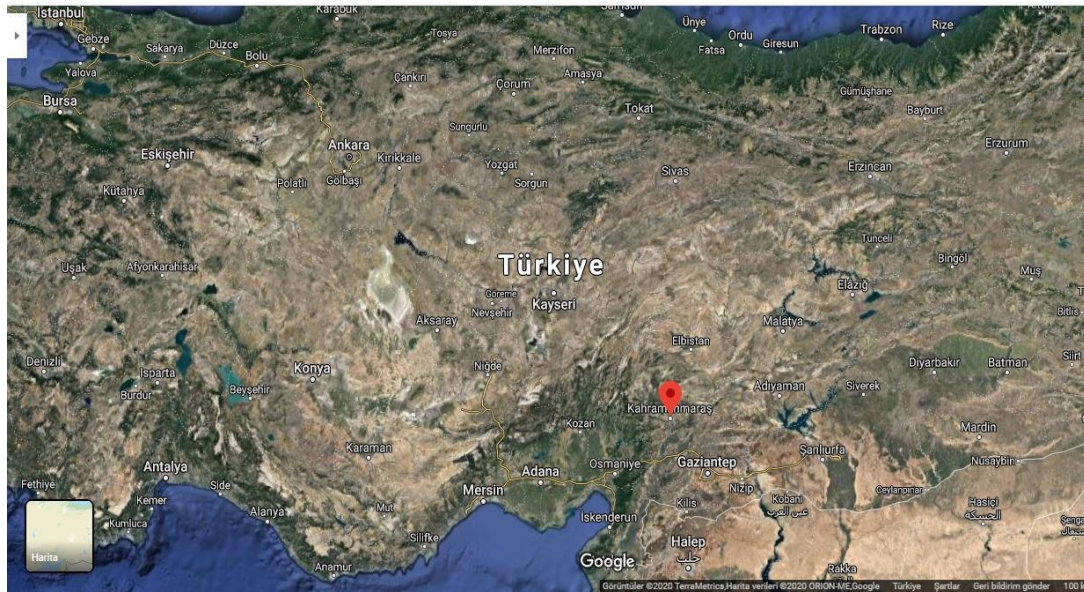


Figure 2. Map of Turkey and location of Kahramanmaraş Province in red trace

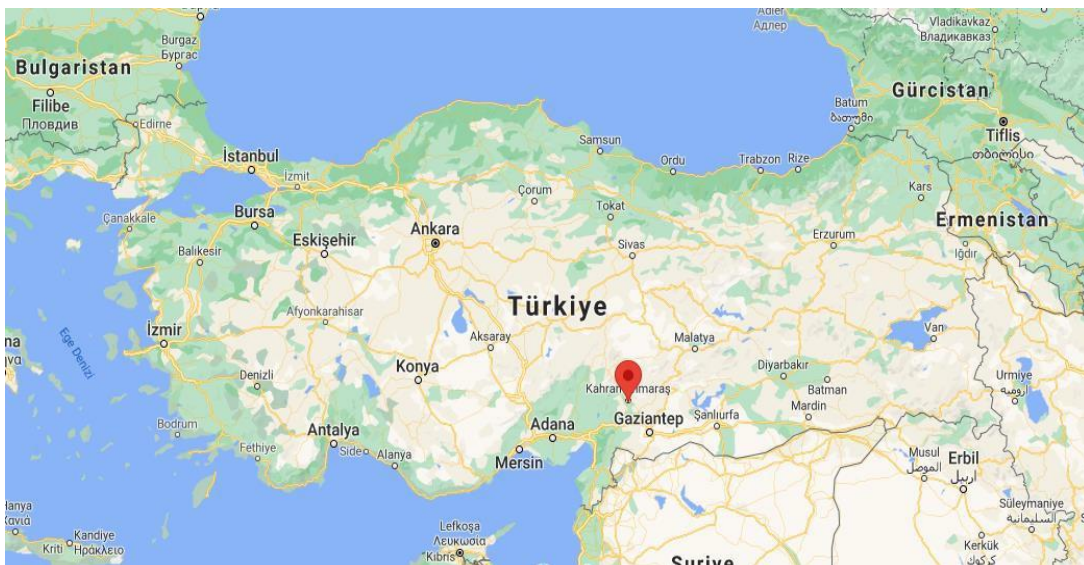


Figure 3. Map of Turkey and location of Kahramanmaraş Province in red trace

1.4. Proof of origin

'*Maraş Tarhanası*' was applied to the Turkish Patent Institute for Geographical Indication and was taken under protection in 2010. The registrant is Commodity Exchange of Kahramanmaraş. Companies that sell under the name '*Maraş Tarhanası*' sign a contract with the Commodity Exchange and undertake to comply with all production conditions.

The audit is carried out regularly once a year, whenever deemed necessary and upon complaint, by a 3-person supervisory authority, which will be formed under the coordination of Kahramanmaraş Commodity Exchange and with the participation of one expert from Kahramanmaraş Commodity Exchange, Kahramanmaraş Provincial Directorate of Agriculture and Forestry and Kahramanmaraş Chamber of Commerce and Industry. The suitability of the ingredients used in the production of '*Maraş Tarhanası*'; compliance with the production method and the use of the '*Maraş Tarhanası*' phrase and the origin sign emblem are checked.

The inspection authority may benefit from or purchase services from public institutions or private institutions or real or legal persons who are experts in them during the execution of the inspection. The registrant carries out the legal processes for the protection of the rights.

During the inspections, '*Maraş Tarhanası*' is primarily examined physically such as color, taste and thickness. The sourness and crispness of its taste are controlled by experts. People on the test team must be trained and certified in sensory analysis. Chemical analysis is performed in ministry-approved laboratories by taking samples from the suspected products.

All producer companies also must register in the Provincial Directorate of Agriculture with their business registration numbers. These numbers must be printed on all sales packages.

On the package label; the contents of the product, net amount of the product, the name of the producing company, business registration number and net address, serial number or batch number, production authorization date, country of origin of the product, recommended consumption date, storage and usage information and drying method must be included.

For traceability of raw materials the producer companies are obliged to make invoice records of all inputs received and keep these vouchers for 10 years.

1.5. Description of the method of obtaining the agricultural product or foodstuff

Only certain characteristics types of wheat are used in the production of '*Maraş Tarhanası*'. The desired qualities of wheat used in making '*Maraş Tarhanası*' are white, low in gluten content, coarse, full, clean, pure, and not too hard.

Other cracked wheat with the desired quality and low gluten ratio can also be used in production. Before being cooked, the wheat is first shelled, milled, sifted and finally graded.

Appropriate weather conditions are necessary when making '*Maraş Tarhanası*'. In addition to sunny weather conditions necessary to hasten the drying process, it is also important to have a steady breeze to help keep the tarhana cool.

The evening before the tarhana process begins, cracked wheat is wetted in big boilers called '*Masere Kazanı*'. The fires are started at midnight and the wheat is cooked and constantly stirred until the morning. Only experienced people perform this cooking and stirring process, which is called '*kürekleme*'.

To prevent scorching, a 120-150 cm. long wooden paddle called a '*tarhana küleği*' is used to stir the thick mixture. The tarhana '*küleği*' is firmly held in both hands, similar to a boat oar. Starting from the bottom of the boiler, the thick porridge-like mixture is repeatedly stirred, lifted up, and then folded back on itself. From time to time the '*kürek*', or wooden paddle, is wet with water to help prevent sticking.

When the mixture is well cooked the embers are removed. The boiler is covered with a large metal tray, allowing the steam from the mixture to continue the cooking process, as it is occasionally stirred.

As the stirring continues, full or semi-fat yogurt is added to the cooked wheat on a ratio of on a ratio of at least one-to-two of wheat. A maximum of 3% salt is added to every 100 kg cooked wheat. Thyme (obligatory) is added in the range of 0.1-0.3%, black sesame (optional) is added in the range of 5-20%. and pepper, spice, walnut, almond are (optional) added in the range of 20- 30% per 100 kg.

The mixture is then poured into large cloth lined baskets and left to stand overnight to drain any remaining excess water. In the morning, the soured mixture is thinly spread over long straw mats called "*çiğ*". Thinly spreading the tarhana helps to quicken the drying process, making it more crispy. The next morning the sheets of dried tarhana are separated from the grass mats, turned over, and allowed to completely dry under the sun for the remainder of the day. In the evening, the sheets of tarhana are gathered up and put in bins to store. It is stored in cardboard boxes or metal barrels made of galvanized sheet.

The making procedure of the '*Maraş Tarhanası*' based on the modern method is as follows;



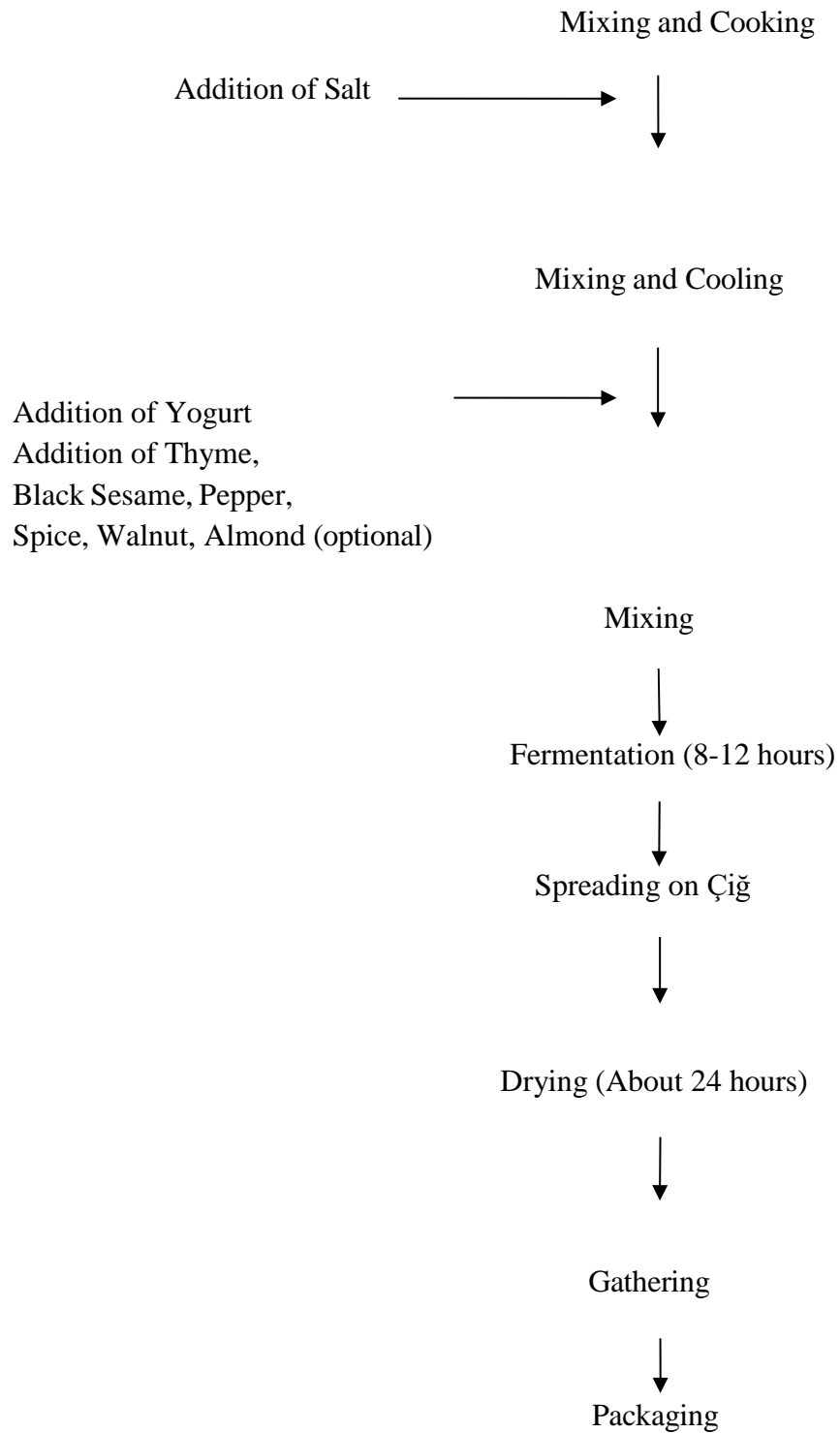




Figure 4. Mixing and Cooking



Figure 5. Spreading on Çiğ



Figure 6. Drying



Figure 7. Gathering



Figure 8. Dried Form

Although not preferred, when the weather conditions are not suitable it can be dried in ovens on unsunny and very cloudy days. This has been a necessity for sudden weather changes on sunny days, especially considering climate change. Otherwise, the laid product must be discarded. The drying method of the product must be indicated on the package label. This method is a drying technique by passing over a conveyor belt with air circulation and tunnel system. The maximum drying temperature must be maximum 60 degrees celsius. Above 70 degrees celsius, all yogurt bacteria die and the product does not consist of any prebiotic specification. The only difference between tarhana dried in the sun and on a conveyor belt with suitable conditions is its vitamin D content. '*Maraş Tarhanası*', which is dried only in the sun, contains D vitamins. Generally, tarhana that does not dry in the sun is not preferred, so the drying method of the product must be stated on the package label.

1.5. Link

Specificities of the product

'*Maraş Tarhanası*' has particular characteristics due to its origin. Unlike other Tarhanas '*Maraş Tarhanası*' has an exclusive regional way of production as it includes yogurt in its preparation after the stage of cooking of the cracked wheat and just before the drying process. This way of production gives it a sour taste and a long conservation time. Fermented and pro-biotic identity of the product and being able to be consumed alone are its characteristic features.

'*Maraş Tarhanası*' are laid on "çiğ"(mats) and dried in the sun (in ovens if the weather conditions are not suitable).

'*Maraş Tarhanası*' have a high content in lactobacilli and therefore '*Maraş Tarhanası*' have a medium to strong sour taste.

'*Maraş Tarhanası*' have also a particular shape consisting of thin sheets.

Natural Factors

The ever present breeze in Kahramanmaraş during the months of July and August plays an essential role in the drying process in the production of tarhana, adding an original factor to the product. Appropriate weather conditions are followed for the making of tarhana. Because dry air and rainless is also important to have wind to act as an air conditioner in the process.

The direction and strenght of the winds is an important requirement in the production of authentic '*Maraş Tarhanası*'.

In Turkey, the Kahramanmaraş province receives a higher than average amount of sunshine, which is another important factor in tarhana production.

Human Factors

Throughout Turkey, '*Maraş Tarhanası*' is associated to the province of Kahramanmaraş. It is a food product special to Kahramanmaraş, where it holds an important place as a traditional food.

'*Maraş Tarhanası*', prepared with a different method specific to Kahramanmaraş has become an indispensable food for the people of Kahramanmaraş. In Kahramanmaraş, tarhana has an important place in city life as a different cultural element. '*Maraş Tarhanası*' has not only a historical accumulation but also continues to remain the ethnic-cultural element of the region.

After the first cooking and once the mixture is cooled, the yogurt is added and it is laid for fermentation. During this production step, lactobacilli develops. Then '*Maraş Tarhanası*' is laid on çığ (mats) in order to let dry in the sun. A long experience is necessary to spread the mixture properly on the mats as it needs to be equal in density and thickness. All these experiences have been transferred from generation to generation.

In every region of Turkey, milled wheat and flour are used in local products called "tarhana". '*Maraş Tarhanası*' is special in terms of its ingredients, production process and the different ways in which it is eaten. The specific wheat type, the shape of the tarhana (thin sheets) and the natural drying process are all identifying characteristics of authentic '*Maraş Tarhanası*'.

Some of the different ways of '*Maraş Tarhanası*' is served are as follows:

1. Thin dried sheets
2. In the form of soup
3. By soaking in the hot broth
4. Fried in oil
5. Soaked in water and then fried in oil with onion
6. Crisped on a hot dry griddle
7. By baking



Figure 9. '*Maraş Tarhanası*' Soup



Figure 10. Fried in Oil

The addition of thyme and black sesame (optional) imparts an aromatic herbal flavour gives further distinguishing from the other tarhanas.

The process of making '*Maraş Tarhanası*' is also product-specific. In the production of tarhana made in other localities, lactobacilli, which are the pro-biotic microorganisms in yogurt, are destroyed during the cooking stage, losing all of its beneficial vitality. In the production of '*Maraş Tarhanası*', yogurt is not added during the cooking stage, but after the cooked cracked wheat is cooled. If used, this is also when thyme and black sesame, pepper, spice, walnut, almond (optional) are added to the mixture which is then allowed to ferment in cloth-lined baskets for about 10 hours before being spread on mats to dry.

It is a typical traditional food which involves a lot of skilled manpower. During the elaboration phase, the mixing process of cracked wheat with boiled water, which is called "küreklem" also requires a lot of expertise as the mixture should not burn. Küreklem has its own method. It is done with a tool called tarhana küreği, which is carved from wood between 120-150 cm. The tarhana küreği should be held and moved in a way that the paddle can rotate freely in hand so that the hand of the person who will do the mixing does not swell. People do the mixing work in order not to let the mixture burn at the bottom of the caldron and the shovel should be wetted from time to time and küreklem should be continued. In order to dry the cooked tarhana, mastery and experience are required in the spreading process. Küreklem process has been mechanized for modern factory production. In factory production mixer chrome boilers are used but there are some crucial points to maintain a certain quality of the product. This mixture is made under the supervision of a master to avoid watering,

sticking to the pan and burn. For reaching its consistency a master oversight is crucial. Because it is not possible to give a standard time for mixing cooking. Depending on the type of yoghurt and cracked wheat used, it is possible for each mixture to reach a consistency in different times. It is not possible to produce only with automatic mixing process.

Once dried, '*Maraş Tarhanası*' is gathered in large and small strips in the shape of chips. The product acquires a fermented identity, with fermentative yeasts from the cracked wheat and lactobacilli from yogurt carrying out a simultaneous fermentation. It is the most important feature of '*Maraş Tarhanası*' that distinguishes it from other Tarhana species. '*Maraş Tarhanası*', which is completely dried in the sun, is not put into the baking process in any way. The making process of '*Maraş Tarhanası*' is exclusive and special to the product.

This whole process gives a sour taste to it. Moreover, the fermentation process helps the product to be preserved longer and it can be eaten all year long. '*Maraş Tarhanası*' can be stored for 1 year in a dry and cool place. The period for making tarhana is between the beginning of June and the end of October.

The link between '*Maraş Tarhanası*' and its geographical area is also based on reputations like its specifications, natural factors and human factors of the geographical area.

According to the rumor, during the Dulkadiroğlu Principality, Yavuz Sultan Selim had prepared '*Maraş Tarhanası*' by the people of the region for his army, while he was crossing the Sinai desert during the Ridaniye Campaign on his way to Egypt. It is rumored that Yavuz Sultan Selim learned '*Maraş Tarhanası*' from his mother, Ayşe Hatun (Gülbahar Sultan) was from Kahramanmaraş and he preferred tarhana hence it is light, it has high nutritional value and keeps you full and it is durable enough not to spoil in heat and cold. This rumor is mentioned in all local and national sources and is known by every Maras citizen. (Simsekli, N., Dogan, I. (2015). Traditional and Maraş Tarhana as a Functional Product. Iğdır University Graduate School of Natural and Applied Sciences Magazine. 5(4): 33-40.).

An American officer Stanley Kerr took a this photograph showing the spread of tarhana in 1919 in Kahramanmaraş. '*Maraş Tarhanası*' is being spread under the supervision of the trainer in American Orphanage for winter.



Figure 11. Spreading in 1919

Below is a colorized version of Stanley Kerr's photo.



Figure 12. Spreading in 1919 Colorized

By its structure; In Divan-ı Lügat-it Türk, "tar" means yoghurt stored from summer to winter, and in Persian, the words "terhuvane" and "terhime" are used (Dayısoylu, İnanç, Duman, Gezginç & Özsisli, 2003)

You can learn how people make '*Maraş Tarhanası*' in Kahramanmaraş by the documentary, "Maraş Tarhanası Nasıl Üretiliyor?- Ev Yapımı -TRT Avaz", was prepared by the Turkish Radio and Television Corporation (TRT) İzmir Television in the summer of 2012 under the coordination of the Provincial Directorate of Culture and Tourism.

In the book which offers numerous recipes of traditional foods from across the world written by Kristberg Kristbergsson, and Jorge Oliveira, "Traditional Foods, General and Consumer Aspects", Springer; 1st ed, March 10, 2016, you can find '*Maraş Tarhanası*' from Kahramanmaraş in the page 94.

'*Maraş Tarhanası*' has been the subject of many scientific articles, journals, thesis and symposiums with its value, production process and ethnic and cultural aspects.

In a research article published in Journal of Social and Humanities Sciences, "Maraş Tarhanası ve Gelişim Süreci", Kaya, M. & Seçim, Y. (2020), mentioned that tarhana is a food product known all over Turkey but '*Maraş Tarhanası*' is a food product that is diversified with many methods and contents and becomes unique to the region and consumed by the wide public. With this aspect, '*Maraş Tarhanası*' stands out as a local product. Thanks to this feature, the product reached its geographical mark which is very important for the gastronomy world in July 2010.

In Food Bioscience which is a journal that aims to provide a forum for recent developments in the field of bio-related food research, focuses on both fundamental and applied research worldwide, with special attention to ethnic and cultural aspects of food bioresearch, a study is published of monitoring of acid development in fermentation of '*Maraş Tarhanası*'. The study is about using different yoghurt cultures and its effects on '*Maraş Tarhanası*' (Dağ, Ü. & İnanç, A. L. (2019). Farklı Endüstriyel Yoğurt Kültürleri Kullanarak Maraş Tarhana Hamurunun Fermantasyonunda Asit Gelişiminin İzlenmesi ve Tarhanaya Etkileri . Kahramanmaraş Sütçü İmam Üniversitesi Mühendislik Bilimleri Dergisi , 22 (1) , 1-9 . DOI: 10.17780/ksujes.436311).

1.7. Name and address of the authorities or bodies verifying compliance with the provision of the specification

Commodity Exchange of Kahramanmaraş is applying to register '*Maraş Tarhanası*' as a PGI on behalf of the professional committee group of '*Maraş Tarhanası*'.

Commodity Exchange of Kahramanmaraş

Kahramanmaraş Commodity Exchange was established in 1969 in accordance with the law numbered 5590 and related regulations with the approval of the Ministry of Industry and Trade and has 450 members consisting of Real and, Legal Person and Cooperatives.

Commodity Exchange of Kahramanmaraş; makes the registration of commercial organizations operating in the direct trade, manufacturing and service sector such as merchant, trader, company and cooperative; makes classification and arrangement of the documents issued in the 51st article of the Law No. 5174 for its members and operates within a general service administrative structure as creating solutions to the economic problems and needs of the region and the farmers.

Accompanying Information:

1. **Type:** PGI
2. **Country of origin:** Turkey
3. **Applicant Group:** Commodity Exchange of Kahramanmaraş

Address:

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E mail: borsa@kmtb.org.tr, t.bozdog@kmbb.bel.tr

Website: <http://kmtb.org.tr/index.php>

4. Proof of Protection in the Country of Origin

Available on the Turkish Patent Institute website:

<https://ci.turkpatent.gov.tr/cografi-isaretler/detay/38032>

<https://ci.turkpatent.gov.tr/Files/GeographicalSigns/8c3d053b-bb27-4305-a46f-398c181d189e.pdf>

Researches for '*Maras Tarhanası*'

<http://jes.ksu.edu.tr/tr/pub/issue/44390/436311>

<https://agriculture-ataunipress.org/Content/files/sayilar/48/53-63.pdf>

<https://www.foodelphi.com/geleneksel-ve-fonksiyonel-urun-olarak-maras-tarhanasi-nihal-simsekli/>

<https://dergipark.org.tr/tr/pub/jist/issue/15546/385196>

<https://dergipark.org.tr/tr/download/article-file/356876>

<https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=uVNqhwpYPPJb9V8qrZuVwA&no=mc2eN3wGKtgOvIOU-bOG2Q>

<https://aydingastronomy.aydin.edu.tr/wp-content/uploads/2016/08/Gastronomi-Alan%C4%B1nda-Mara%C5%9F-Tarhanas%C4%B1n%C4%B1n-De%C4%9Ferlendirilmesi-.pdf>

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<https://docplayer.biz.tr/26965646-Kahramanmaras-elbistan-da-geleneksel-olarak-yapilan-tarhana-ve-tarhana-corbasi.html>

http://www.jshsr.org/Makaleler/622252487_02-7-55.1891-1618-1628.pdf

<https://dergipark.org.tr/tr/download/article-file/412935>

https://www.researchgate.net/publication/351333313_Geleneksel_ve_Fonksiyonel_Urun_Olarak_Maras_Tarhanasi_Traditional_and_Functional_Fermented_Product_Maras_Tarhana

<http://agrifoodscience.com/index.php/TURJAF/article/view/3273>

<http://www.jshsr.org/DergiTamDetay.aspx?ID=1891&Detay=Ozet>

<https://www.millifolklor.com/PdfViewer.aspx?Sayi=96&Sayfa=154>

https://www.researchgate.net/publication/292141867_A_Research_on_Determination_of_Supply_Types_of_Maras_Tarhana_at_Kahramanmaras_Vocational_School_Students

Press Releases for ‘*Maras Tarhanası*’

<https://www.youtube.com/watch?v=V1XK5Igt7kQ>

<https://www.kulturportali.gov.tr/turkiye/kahramanmaras/neyenir/maras-tarhanasi-1>

<https://www.endemigo.com/detay/maras-tarhanasi>

<https://www.turkascihaberleri.com/HaberDetay/461/Osmanli-dan-Gunumuze-Kalan-Lezzet---Maras-Tarhanasi-.html>

<https://www.marasmanset.com/evlerde-maras-tarhanasi-yapimi-basladi>

<https://www.ahaber.com.tr/galeri/yasam/osmanlidan-gunumuze-kalan-lezzet-maras-tarhanasi>

<https://www.hurriyet.com.tr/lezizz/maras-tarhanasi-tarifi-41878691>

<https://lezzetler.com/maras-tarhanasi-kahramanmaras-tarif-116654>

<https://mobile.twitter.com/yorextr/status/639421027165052928?lang=ca>

<http://wowturkey.com/forum/viewtopic.php?p=7928252>

<http://evimizdekilezzetler.blogspot.com/2011/01/ben-geldiiiiimm-hemde-kmaras-tarhanasi.html>

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<https://dantellerdunyasi.wordpress.com/2010/05/16/yoresel-k-maras-tarhana-corbasi/>

<https://kahramanmaras.bel.tr/maras-tarhanasi>

<https://www.biletara.com/blog/yoresel-lezzetler/kahramanmaras-mutfagi/>

<https://kahramanmaras.goturkiye.com/taste>

<https://www.marasgurme.com/blog/icerik/maras-tarhanasi-nasil-pisirilir>

<https://kahramanmaras.ktb.gov.tr/TR-250981/kahramanmaras-cografi-isaretleri.html>

<https://www.milliyet.com.tr/yerel-haberler/ankara/osmanlidan-gunumuze-kalan-lezzet-maras-tarhanasi-12281407>

<https://www.baskonusyaylasi.com/detay/1017-maras-tarhanasi-yapimindan-yaylada-aksam-yemegine%E2%80%A6>