PRODUCT SPECIFICATION

For the application of “Khao Sangyod Muang Phatthalung” as a Protected Geographical Indication (“PGI”) in the European Union according to EU Regulation 1151/2012.

Content

(a) the name to be protected as a designation of origin or geographical indication, as it is used, whether in trade or in common language, and only in the languages which are or were historically used to describe the specific product in the defined geographical area;

(b) a description of the product, including the raw materials, if appropriate, as well as the principal physical, chemical, microbiological or organoleptic characteristics of the product;

(c) the definition of the geographical area delimited with regard to the link referred to in point (f)(i) or (ii) of this paragraph, and, where appropriate, details indicating compliance with the requirements of Article 5(3);

(d) evidence that the product originates in the defined geographical area referred to in Article 5(1) or (2);

(e) a description of the method of obtaining the product and, where appropriate, the authentic and unvarying local methods as well as information concerning packaging, if the applicant group so determines and gives sufficient product-specific justification as to why the packaging must take place in the defined geographical area to safeguard quality, to ensure the origin or to ensure control, taking into account Union law, in particular that on the free movement of goods and the free provision of services;

(f) details establishing the following:

- the link between the quality or characteristics of the product and the geographical environment referred to in Article 5(1); or
- where appropriate, the link between a given quality, the reputation or other characteristic of the product and the geographical origin referred to in Article 5(2);

(g) the name and address of the authorities or, if available, the name and address of bodies verifying compliance with the provisions of the product specification pursuant to Article 37 and their specific tasks

(h) any specific labelling rule for the product in question.

(a) <u>the name to be protected as a designation of origin or geographical indication, as it is used, whether in trade or in common language, and only in the languages which are or were historically used to describe the specific product in the defined geographical area;</u>

'ข้าวสังข์หยดเมืองพัทลุง' (Khao Sangyod Muang Phatthalung)

(b) <u>a description of the product, including the raw materials, if appropriate, as well as the principal physical, chemical, microbiological or organoleptic characteristics of the product;</u>

Khao Sangyod Muang Phatthalung is grown from Sangyod Phatthalung variety and is the photo period sensitive lowland rice. It is sown, grown, harvested, milled, packaged and labeled in and indigenous to the province of Phatthalung in the South of Thailand. Khao Sangyod Muang Phatthalung is non glutinous, light, small, lean, and gently fragrant. It can be paddy rice, brown rice and semi milled rice.

<u>Physical properties</u>

– The paddy rice is straw-colored.
– The brown rice's color ranges from red to dark red in the same grain.
– The semi-milled rice is color with light red.
– The grain is long, lean and small. The pericarp is red.
– Gently fragrant with distinctive smell.

Physical characteristic	Paddy rice	Brown rice	Semi-milled rice
Length (mm)	(9.33) 9.1 – 9.4	6.50 - 6.90	6.40 - 6.80
Breadth (mm)	(2.11) 1.9 – 2.25	1.61 - 1.81	1.57 - 1.87
Thickness (mm)	(1.77) 1.7-1.8	1.51 - 1.71	1.44 - 1.64
Colour	Straw-colored	red or dark red	Light red

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<u>Chemical properties</u>

Chemical	Paddy	Brown	Semi-

characteristics	rice	rice	milled rice
Protein (%)	N/A	7 – 10 %	6 – 9 %
Amylose (% db)	N/A	13 – 17 %	
The kernel elongation ratio	N/A	1.5 – 1.8	

Cooking characteristics

Rice and water ratio for cooking is 1 cup of rice to 1.25 - 2 cups of water. For the extra soft texture of Khao Sangyod Muang Phatthalung, soak the grain in water for 5-10 minutes before cooking.

Aroma and flavour

The cooked rice is soft and a little sticky. The taste is slightly sweet with mildly aromatic fragrance.

(c) the definition of the geographical area delimited with regard to the link referred to in point (f)(i) or (ii) of this paragraph, and, where appropriate, details indicating compliance with the requirements of Article 5(3);

Phatthalung is one of the southern provinces of Thailand. Neighboring provinces are from north clockwise, Nakhon Si Thammarat, Songkhla, Satun and Trang. The area is 3,424.5 sq km^2 or 2,140,296 rai.

Phatthalung is a lowland plain set between the Songkhla Lake to its east and the Bantat mountain range to its west. The plain is created by the deposits from the flooded lake during the monsoon season. The area's main source of agricultural water is the Songkhla Lake.

The drainage capacity of the soil helps Khao Sangyod Muang Phattalung to develop and to mature well and the water storage and redistribution capacity provides a moderate but continuous level of irrigation even in dry periods.

The climate in Phatthalung has a significant effect on the characteristics of Khao Sangyod Muang Phattalung. Because of its southern location, Phatthalung has two climatic influences, both oceanic and continental. The continental influence is responsible for the distinctive dry season characterised by long hours of photoperiod.

Khao Sangyod Muang Phattalung refers to paddy rice, brown rice and semi milled rice , grown in the rainy season in Phatthalung province and exuding a natural aroma. It is characterized by its red pericarp, soft texture when cooked and light fragrant.

Natural factors have a significant impact on the quality, characteristics and uniqueness of the Rice. The subsoil in Phatthalung possesses combined qualities of drainage as well as fertile deposits and water storage and redistribution capacity. Phatthalung has two climatic influences, both oceanic and continental. Owing to the oceanic (Gulf of Thailand) influence, there is considerable rainfall during rainy season and less extremity in temperatures over the seasons. In particular, its lowland location and weather makes the fertile land and climate of Phatthalung contribute to the distinguish characteristic of Khao Sangyod Muang Phatthalung, slender grain shape. When Sangyod Phatthalungrice is grown in other provinces, its characteristics will be different, such as thicker and less red. According to the local tradition, the rice is harvested after ripening phase, making the grain color more red, more fragrant and softer when cooked, than Sangyod Phatthalung rice grown elsewhere.

These outstanding characteristics are possible only under such unique geomorphological conditions in the southern part of Thailand especially nature of soil, water quality, hours of sunshine, narrow range of temperatures, heavy raining season.

(d) evidence that the product originates in the defined geographical area referred to in Article 5(1) or (2);

(1) Khao Sangyod Muang Phatthalung must be produced only in Phatthalung Province, according to the mentioned production process.

(2) The production process must be monitored and controlled through the registration of GI members producing the Khao Sangyod Muang Phatthalung and the use of accompanying documents making the product traceable to its origin.

(e) a description of the method of obtaining the product and, where appropriate, the authentic and unvarying local methods as well as information concerning packaging, if the applicant group so determines and gives sufficient product-specific justification as to why the packaging must take place in the defined geographical area to safeguard quality, to ensure the origin or to ensure control, taking into account Union law, in particular that on the free movement of goods and the free provision of services;

The whole production cycle of Khao Sangyod Muang Phatthalung must take place in the defined geographical area to ensure that it is conducted entirely under the geomorphological conditions. Khao Sangyod Muang Phatthalung must be grown, dried, stored, milled, and processed in the province of Phatthalung. Khao Sangyod Muang Phatthalung can be traced at each stage by means of accompanying documents, transport receipts, registers

Khao Sangyod Muang Phatthalung must be grown between August and October, and harvested during its ripening stage between December and February. The harvest is fixed according to the climate and the maturity of the rice. The

harvested rice is then stored within the geographical area in silos with regulated temperature and humidity to avoid, in particular, risks of mixture with other rice varieties, possible contamination, high moisture, and prevent the dilution of its distinctive fragrance.

Main production practices of Khao Sangyod Muang Phatthalung are including the following;

– Soil preparation; includes first rough plough, second plough, to appropriately control the number of volunteer rice plant (means rice plant that germinated from those seeds remained in the field from the previous season) and off type rice (means rice plant of other varieties grown in the rice field, but excluding weedy rice)

– Soil fertilization and improvement should be done on a regular basis

– Rice plant care; implementing appropriate water management, removing the off type rice in the tillering stage, reproductive phase and maturation stage, appropriately terminating pests

– Cultivation; must be done during the Southern wet season (August-October) after the ripening phase. It is a tradition of Phatthalung province to cultivate a bit over ripening rice.

– Grain moisture - The humidity of the rice grain must be reduced to 14% or less.

Khao Sangyod Muang Phattalung must be packaged and labeled in Phatthalung province. This is to give consumers an effective guarantee of the origin and quality of the rice. Re-packaging is not allowed in order to prevent any possible mixture, contamination or alteration of the rice. Furthermore, due to its distinctive fragrant, Khao Sangyod Muang Phattalung needs to be packaged in Phatthalung province to prevent the dilution of fragrance.

Production Process

1. Cultivation

Criteria	Requirements	Remarks
Cultivation area	-Must be within the province of Phattalung	
Seeds	- Must be of Sangyod Phatthalung variety produced by Thailand Rice Department or other sources such as Farmer organization or private organizations approved by Thailand Rice Department which comply with the rice seed production standard. - In case that farmers breed the rice by themselves, they are allowed to use the approved variety mentioned above (the seeds must be planted within 3 years after obtaining them from the source).	
Soil preparation	Includes first rough plow, second plow, appropriately controlling the number of volunteer *rice* plant and off type rice and recording the data accordingly.	volunteer *rice* plant refers to rice seeds which remain in the soil from the last farming season
Cultivation	- must be done during the Southern wet season (August-October) - may be done by transplanting or paddy sowing using man power or machine.	

	- The data such as cultivation date and seed use rate must be recorded.	
Soil fertilization and improvement	- should be done on a regular basis and the relevant deta must be recorded.	
Rice plant care	- implementing appropriate water management - Removing the off type rice in tillering *phase,* reproductive *phase and* Maturation stage. - Approppriately terminating pests.	
Humidity reduction	- The humidity must be reduced to 14% or less - The data concerning humidity reduction must be recorded.	
Paddies rice storage and transportation	- The storage place must be clean and hygienic, close with appropriate ventilation. - The storage must be done orderly without allowing different rice to mix up. - Rice transporting vehicle must be clean and not allowing different rice to mix up. - The stored yield must be labeled, given a code, or marked based on generation (date) of harvest or place of harvest.	- The labeling must be done in compliance with the requirements.

2. Paddy rice buying

2.1 Paddy rice must be bought from registered farmers/farmer groups and must have been cultivated according to the specifications of the Sangyod Munag Phatthalung Rice.

2.2 Daily and monthly records must be kept to indicate the names of the farmers/farmer groups, cultivation place, date of purchase and volume of sales.

2.3 Sangyod Muang Phatthalung Rice must be stored separately from other rice varieties and from other Sangyod rice not produced by members of a GI group, which are therefore unverifiable and untraceable.

2.4 The quality of Sangyod Muang Phatthalung Rice must be tested at the paddy rice point of sale. Tests must be performed to detect moisture, contaminants and other stray rice grains.

3. Milling

3.1 The milling facility must be located within the province of Phatthalung.

3.2 The milling facility must provide the adequate storage place for which is suitable for storing and maintaining the quality of Khao Sangyod Muang Phatthalung.

3.3 If the facility does not mill only Khao Sangyod Muang Phatthalung, the rice miller must be cleaned appropriately.

3.4 The data concerning each production, distribution, source of paddy rice, amount of paddy rice milled, amount of white rice after milling the paddy rice, amount of rice distributed, the receiver of the distributed rice, the rice balance. The hiring details should also be recorded in case where the miller is hired to mill the Rice.

4. Transporting, packaging, storing and delivering method

Khao Sangyod Muang Phattalung must be packaged and labeled in Phatthalung province. This is to give consumers an effective guarantee of the origin and quality of the rice. Repackaging is not allowed in order to prevent any possible mixture, contamination or alteration of the rice. Furthermore, due to its distinctive fragrant, Khao Sangyod Muang Phattalung needs to be packaged in Phatthalung province to prevent the dilution of fragrance.

4.1 The equipments and vehicles used in transportation of the Rice must be clean and must be able to preventing the mixing of different rice.

4.2 In the packaging and storing process, the packager must keep the packaging equipment and area hygienic and clean.

4.3 Package must be labeled with the weight, the date of milling and packing, the name of the mill or the name of the grower or cooperative as well as the package's lot or serial number.
Each package must bear the word 'ข้าวสังข์หยดเมืองพัทลุง' and/or Khao Sangyod Muang Phatthalung.
The Thai GI logo and the EU logo for PGI (after the grant of the PGI) shall also be used.

4.4 The product must be kept on the pallet with label indicating date of production, Lot No., and must be isolated from other rice. There must be a sign clearly indicating the storage place for Khao Sangyod Muang Phatthalung.

4.5 The Packager must recoded the amount of product, name of buyer and the amount of product sold.

(f) details establishing the following:

- **the link between the quality or characteristics of the product and the geographical environment referred to in Article 5(1); or**
- **where appropriate, the link between a given quality, the reputation or other characteristic of the product and the geographical origin referred to in Article 5(2);**

Phatthalung is an important source of rice of Southern Thailand since the ancient time. Its vast plains, the right climate and its richness in terms of water source make it ideal for Khao Sangyod Muang Phatthalung cultivation. There is a legend about the plain between Khao Hin Look Doan Mountains narrating that visitors would see the fresh verdure of endless rice fields at the beginning of the farming season and the same rice fields would turn gold when the harvest time approaches in January and February.

Khao Sangyod Muang Phatthalung has been grown in Phatthalung for over a hundred year but local people in the province of Phatthalung prefer to consume granule and hard with high amylose content rice not the soft cooked rice as Khao Sangyod Muang Phatthalung. Therefore, traditionally Khao Sangyod Muang Phatthalung is preserved to be given as a gift to respected senior people and cooked for special persons, such as for the royal guests, official foreign visitors, in special occasion, in religious ceremonies or traditional festivals. This tradition has

created a reputation for Khao Sangyod Muang Phattalung to be known as the rice for special person and occasions in Phatthalung.

Furthermore the nature of Phatthalung province has significant effects on the production of Khao Sangyod Muang Phatthalung. Especially the lowland plain of Phatthalung created by the deposits from the flooded lake during the monsoon season gives various nutrition into the soil gives it a location suited for producing Khao Sangyod Muang Phatthalung. It allows Khao Sangyod Muang Phatthalung grown here to have a special characteristic of lean and slender grain shape, gently fragrant and nutritious. This setting is complemented by the meticulous selection of the seeds, careful maintenance, harvesting procedures and standard production process. The procedures and control contributes to preserving the unique quality of the Rice.

(g) the name and address of the authorities or, if available, the name and address of bodies verifying compliance with the provisions of the product specification pursuant to Article 37 and their specific tasks

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