

Protected food, drink or agricultural product name

# Product specification for Café de Tolima

## A protected geographical indication (PGI)

Responsible country: Colombia

**GB number: F0102**

This document sets out the elements of the product specification for information purposes.

## Competent authority

Name: Superintendence of Industry and Commerce

Address: Carrera 13 #27-00, pisos 1, 3 y 5

Telephone: (+57-1) 5870000

Email: delpropi@sic.gov.co

## Applicant group

Name: FEDERACION NACIONAL DE CAFETEROS DE COLOMBIA

Address: Calle 73 N° 8 - 13 Bogotá D.C.

Telephone: (+57) (1) 3136600 – (+57)(1) 3257421

Email: marcas@cafedecolombia.com

Composition: Producers/processors Other

## Type of product (as in Annex XI Implementing Regulation 668/2014)

Class1.8.

### 1. Product name(s)

Café de Tolima

### 2. Description

The coffee bean is the seed of a tropical shrub with green leaves, called coffee tree. Coffee belongs to the Rubiaceae family and to the *Coffea* genus. There are numerous species of coffee plants and different varieties of each species. The most commercially important species are known as *Coffea Arabica* Linnaeus (known as arabica coffee) and *Coifea Canephora* Pierre Ex Froehner (known as robusta coffee).

#### Taxonomic Description:

In the coffee zone of Tolima, as in the rest of the Colombian Coffee Zone described in the Colombian Coffee Denomination of Origin, the species *Coffea arabica* and the varieties that, duly evaluated by Cenicafé can constitute varieties subject to be catalogued as Colombian Coffee, are cultivated.

The exported or consumed CAFE DE TOLIMA product can be of only one of these varieties or of a mixture, depending on the varieties chosen in the production zones, but all of them come exclusively from the *Coffea arabica* species.

Among the main coffee varieties of the *Coffea arabica* species cultivated in the coffee growing zone of Tolima and reported in the SICA are mainly the varieties Caturra, Típica, Tabi, Colombia and Castillo. Tabi, Colombia and Castillo, including the regional version Castillo Pueblo Bello, which from the point of view of genetic origin have a high degree of similarity.

#### Chemical composition:

The nutrient and mineral contents in the soil of the coffee zone of Tolima are related to the minerals found in the coffee bean. The values and their high availability associated to the PH, give better growing conditions and balance of the nutrients for the growth of the bean.

Thus, potassium in the coffee bean represents approximately 40% of the mineral content of ground coffee. Phosphorus represents 4% of its mineral composition. The remaining mineral content is composed of approximately 30 different elements, including magnesium, calcium and sulfur.

Within the chemical composition of coffee around one thousand compounds have been identified, of which some have been identified as chemical precursors associated to some sensory attributes of the coffee beverage. Among the compounds that give coffee its quality are:

- Caffeine: This substance is partly responsible for the bitter taste of the coffee beverage.
- Trigonelline: Influences the bitter taste and this compound is known for its direct contribution to the formation of aromas during roasting.
- Lipids: Contribute to the transmission of flavours and odours and are carriers of aroma, related to coffees with good acidity.
- Sucrose: Gives sweetness to the beverage and plays an important role during the roasting process. It is presumed that high levels of reducing sugars (glucose, fructose and maltose) improve the quality of the coffee beverage: they are also related to greater acidity and better cup quality.

- Chlorogenic acids and some isomers: Their concentration varies according to the degree of maturation and the environment where the coffee is grown. They participate in the formation of the aroma and are attributed with a great part of the astringent characteristic of the beverage.

The fruity notes are related to the presence of long chain fatty acids, such as oleic and linoleic acids.

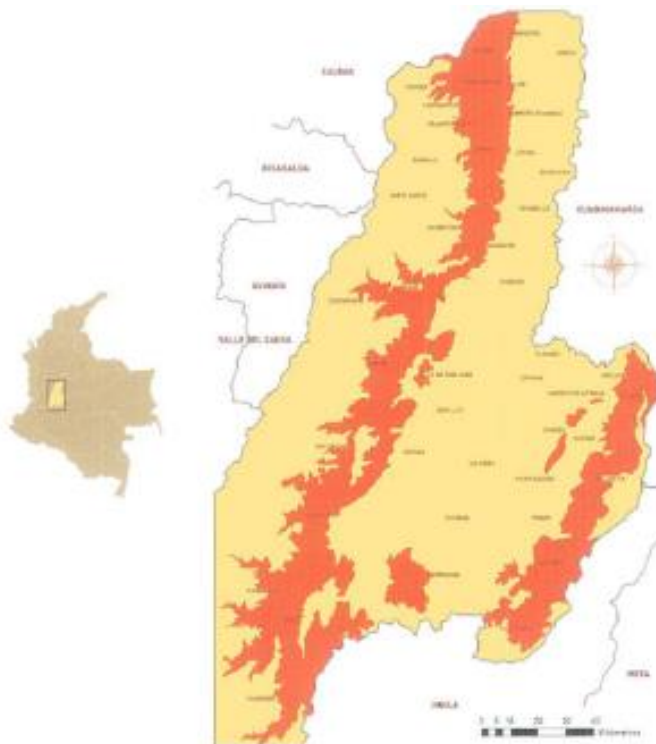
Modal sensory profile for the coffee zone of Tolima:

In accordance with a descriptive quantitative analysis, it can be concluded that the product is characterized as a cup coffee with acidity and medium – full body, clean, smooth, with balance and diverse flavours in the spectrum of sweet, combined with citric and fruity sensations.

### 3. Geographical area

The delimited geographical area is made up of the municipalities of Alpujarra, Alvarado, Anzoategui, Armero - Guayabal, Ataco, Cajamarca, Casabianca, Chaparral, Coyaima, Cunday, Dolores, Falan, Fresno, Herveo, Ibagué, Icononzo, Lérica, Libano, Mariquita, Melgar, Murillo, Natagaima, Ortega, Palocabildo, Planadas, Prado, Purificación, Rioblanco, Roncesvalles, Rovira, San Antonio, San Luis, Santa Isabel, Suárez, Valle De San Juan, Venadillo, Villahermosa and Villarrica.

These municipalities are part of the Colombian department of Tolima and are located between 02°52'59 and 05°19'59 north latitude and 74°24'18 and 76°06'23 west longitude, all at an altitude between 1000 and 2000 meters above sea level.



## 4. Proof of origin

In 1938, the National Federation of Coffee Growers (NFC) created the National Coffee Research Center, Cenicafé, with the purpose of studying the aspects related to the production in the farms, the harvest, the processing, the quality of the bean, the management and utilization of the by-products of the coffee exploitation, and the conservation of the natural resources of the Colombian coffee region.

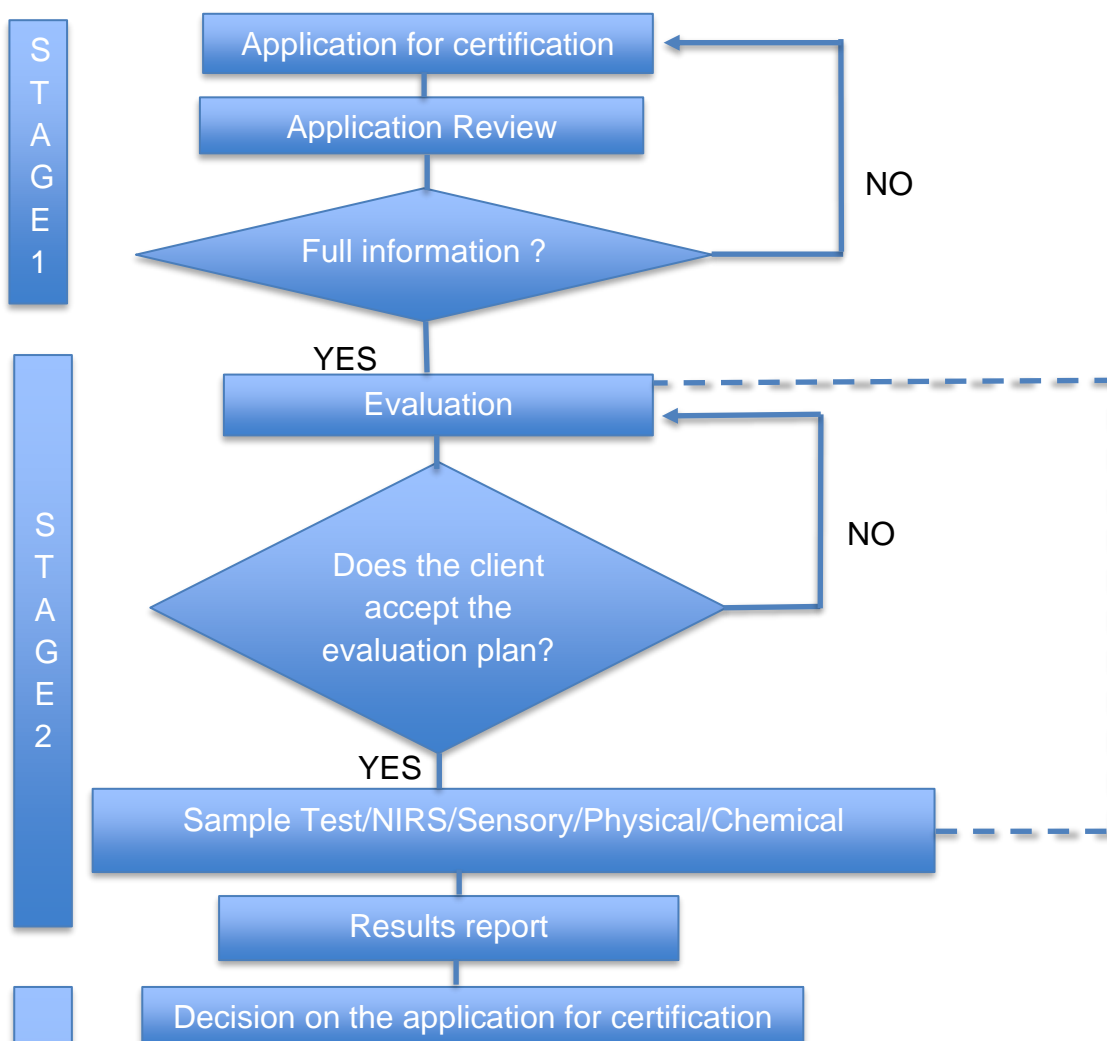
In the coffee zone of Tolima, the species *Coffea arabica* and the varieties duly evaluated by Cenicafé are grown.

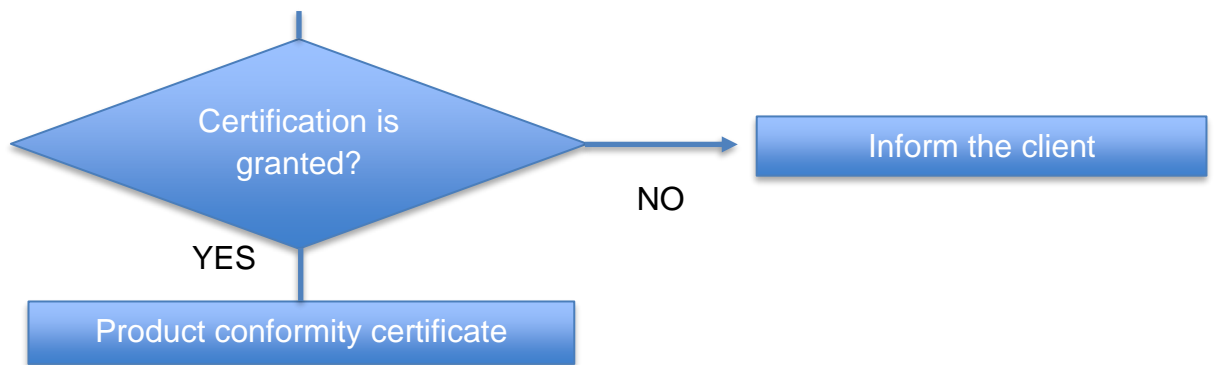
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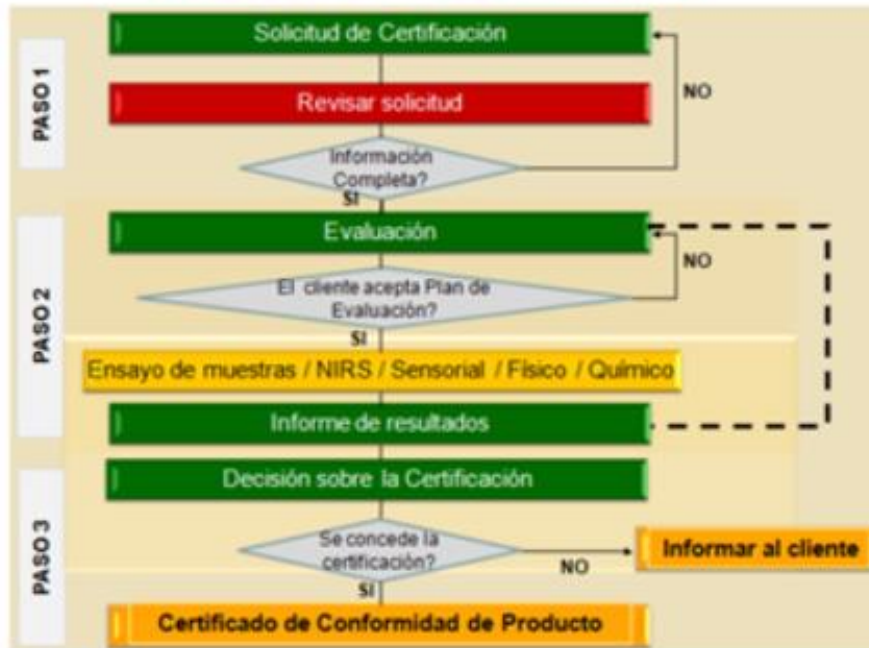
The steps of the certification process are as follows

### CERTIFICATION PROCESS





## Proceso de Certificación



To verify the characteristics, the DO has a Product Certification Body that is in charge of evaluating the conformity of the products and in order to carry out the certification of the conformity of the product, it must take into account the following criteria:

- Species: Washed mild arabica coffee
- Organoleptic characteristics: Cup with medium-high acidity and body, clean, smooth, with balance of sweetness combined with citric and fruity sensations.

The coffee must come from the TOLIMA Coffee Growing Zone and must have undergone selective harvesting, wet processing, threshing and classification.

In order to verify the above, one or several of the following methods will be used:

- i) type test or examination; and
- ii) testing or inspection of samples taken in the market, in the operator's warehouse or a combination of both.

For the issuance of the certification, the verification and adoption of the procedure established in item i) above is sufficient.

The inspection body shall then issue the Product Certificate in accordance with the applicable requirements and may carry out the necessary controls to verify the validity of these requirements.

On the other hand, there is a dynamic information system (SICA), which is updated permanently, and that coordinates and executes the FEDERACION NACIONAL DE CAFETEROS DE COLOMBIA, through the Departmental Committees of Coffee Growers and their extensionists farms, located in the capitals of the coffee departments belonging to the Colombian Coffee Zone including the coffee zone of Tolima.

The SICA contains socioeconomic information, which identifies all cultivation areas, and their related data.

There is follow-up and traceability of the parchment coffee that leaves the farms or mills, and which is moved from one place to another within Colombia. Therefore, it would be a control mechanism that would allow tracking the coffee that leaves the geographical area delimited in this application, for domestic consumption as well as for export.

## **5. Method of production**

Coffee fruit (the cherry):

The coffee beans or seeds are contained in the fruit of the bush. At maturity this bean is red or yellow in color and is called a cherry. Each cherry is made up of an outer skin (exocarp) that surrounds the sweet pulp (mesocarp). Underneath the pulp are the beans covered by a golden membrane (commonly called parchment), which surrounds the two coffee seeds (endosperm).

When the fruits are at their optimum state of maturity, they are harvested manually in order to collect only the red or yellow beans that are ripe. Cherry coffee should have the following characteristics: red or yellow color, appearance of healthy beans.

Harvest.

The maturity of the fruits reaches its fullness 220 ±10 days after flowering occurs.

This manual and selective selection of ripe coffee fruits is of vital importance, as it influences the preservation of the characteristics of the product in later stages, and is presented with particular care, given the cultural processes associated with the harvest.

Harvesting Seasons in the coffee growing region of Tolima

The flowering season in the region occurs throughout the year and defines two zones with different seasons. The first is equivalent to 75% of the municipalities (Alpujarra, Alvarado, Anzoategui, Ataco, Cajamarca, Chaparral, Coyaima, Cunday, Dolores, Ibagué, Icononzo, Lérida, Mariquita, Melgar, Natagaima, Ortega, Planadas, Prado, Purificación, Rioblanco, Roncesvalles, Rovira, San Antonio, San Luis, Suárez, Valle de San Juan, Venadillo and Villarrica) that have their main harvest between March and June, and a mitaca between October and November. The second zone comprises 25% of the municipalities (Armero, Casabianca, Falan, Fresno, Herveo, Lérida, Líbano, Murillo, Palocabildo, Santa Isabel, Villahermosa) and has its main harvest between September and December, and a mitaca between April and May.

Wet milling of coffee.

Coffee pulping: In this stage the peel of the fruit is removed as well as the mesocarp or pulp of the coffee beans using pulping machines.

Sieve: The pulped coffee is cleaned by means of an equipment that cleans the pulped coffee. This procedure allows for the classification of the coffee in order to keep the best coffee beans.

Removal of mucilage (fermentation): This refers to the removal of mucilage, consisting of detaching the portion of the mesocarp, called mucilage, from the endocarp of the bean, using natural fermentation procedures.

During the natural fermentation process bacteria, yeasts and enzymes transform the peptide compounds and sugars that make up the coffee mucilage into alcohols and carboxylic, acetic, lactic, propionic and butyric acids, which are then removed during the washing process. The separation of the mucilage by fermentation is done by leaving the pulped beans in tanks or containers with water usually for 16 to 18 hours, depending on the altitude and temperature conditions.

Coffee washing: In this procedure the coffee (pulped - fermented) is washed and drained, removing the products solubilized in the previous stage.

This wet milling process is usually carried out in the farms of the coffee zone delimited for the purposes of the denomination of origin CAFÉ DE TOLIMA.

Drying: It is carried out slowly and at low temperatures through the action of the sun's rays in cement patios or planillas, also by mechanical drying by means of raisins, elbas houses and solar canopies. The current norms for the commercialization of dry parchment coffee in Colombia establish a humidity content of 10 to 12% (quality norm No. V7 of May 1993) and CAFÉ DEL TOLIMA, since it belongs to Colombia, complies with these ranges of humidity. Once the coffee has been dried, it is called parchment coffee, since it is covered by an opaque yellow layer similar to parchment. This parchment coffee should be threshed to obtain green coffee or also known as almond coffee.

Storage of dry parchment coffee: In order to maintain the quality, appearance and flavor of the coffee, dry parchment coffee with humidity between 10% and 12% is stored in warehouses, where the temperature should be below 20°C and the humidity around 65%.

Threshing and classification:

Threshing: dry parchment coffee is threshed in coffee threshing machines where the endocarp is separated from the dry parchment coffee in threshing machines, to obtain the almond coffee, which is classified in machines by size, density, gravity, followed by a new classification by color, which can be manual and/or electronic, to separate the defective beans and obtain the almond coffee (green coffee).

Thus, it is necessary to specify that, although the CAFÉ DEL TOLIMA is not necessarily threshed in threshing machines located in the municipalities that are part of this coffee growing zone, this circumstance does not affect the traceability and follow up of the green coffee.

Coffee Processing

Coffee roasting can also be a phase of the process that does not necessarily take place in the defined geographical area. It consists of applying heat to the green bean, as a previous step to its use as raw material in the production of the coffee beverage. There is not a unique way of proceeding to the roasting of the coffee that will depend in any case on cultural factors of the final market, it means then that the organoleptic or sensory characteristics of the TOLIMA COFFEE will remain present in the final beverage, because these are intimately linked to the chemical composition of the green coffee.

## **6. Link with the geographical area**

The interaction of the plant with the climate and the soil causes different expressions in the characteristics of the plant, such as: growth rate, flowering pattern, sowing days and grain density. In the specific case, the physical and chemical characteristics of the soils are one of the differentiating elements of its attributes. In fact, a large proportion of the coffee growing zone of Tolima is located on soils derived from volcanic ashes, which are more evolved.

In this sense, the pleasant aromas and the clean cup are due to the fact that the characteristics of the zone lead to a homogeneous development and maturity of the coffee bean. The fruity notes are related to the presence of long chain fatty acids, such as oleic and linoleic acids.

The acidity and fruity flavor of Tolima coffee derives from the characteristics of the soils, the prevailing temperature of 20°C and 21°C and the presence of volatile compounds mainly from the oxidation of lipids and fatty acids that during roasting form acids, aldehydes and ketones. The amount of lipid substance after roasting helps to fix the majority of the volatile fraction, responsible for the fruity sensations.

Finally, as regards the link, the product presents several causal relationships with the delimited geographical area, in particular with respect to climate elements and bioclimatic indicators and, especially, in relation to soil elements.

Likewise, volcanic soil contributes to a high acidity rate. The physical condition of the soils contrasts well with the variables of pH, phosphorus, and potassium content. The pH level (average value of 5.0), favors the uptake of nutrients, especially calcium (Ca), magnesium (Mg), phosphorus (P).

The acidity and fruity flavor of TOLIMA COFFEE derives from the characteristics of the soils, the prevailing temperature and the presence of volatile compounds mainly from the oxidation of lipids and fatty acids that during roasting form acids, aldehydes and ketones. The amount of lipid substance after roasting helps to fix most of the volatile fraction responsible for the fruity sensations.

From what has been described it can be deduced that the coffee cultivated and produced in the delimited geographical zone presents special characteristics that are provided by the climatological and soil conditions in which it is produced, from which the causal link between the geographical zone and the quality of the CAFÉ DE TOLIMA is derived.



## 7. Inspection body

Name: NATIONAL FEDERATION OF COFFEE GROWERS OF COLOMBIA, which decides on applications for authorization to use the appellation of origin seal based on the report submitted by the FOUNDATION FOR THE CERTIFICATION OF COFFEE IN COLOMBIA - CAFECERT.

Address: Calle 73 N° 8 - 13 Bogotá D.C.

Telephone: (+57) (1) 3136600 – (+57)(1) 3257421

Fax:

Email: [cafecert@fundacioncafecert.org](mailto:cafecert@fundacioncafecert.org)

The inspection body conforms to the principles of ISO 17065 standard.

## 8. Labelling

Article 11 of the Regulations for the Use of the Denomination of Origin contains the following provisions regarding the labeling of the final product to be marketed:

"11.1. Green coffee destined for national consumption covered under the Denomination of Origin CAFÉ DE TOLIMA, must comply in its labeling with the following:

a) Be identified according to the type of preparation of the product:

For excelso or supreme: it shall be identified with the inscription DO CAFÉ DE TOLIMA, CAFÉ DE TOLIMA, adding the origin COLOMBIA or CAFÉ DE TOLIMA - COLOMBIA followed by the expression excelso or supreme. Example: CAFÉ DE TOLIMA SUPREMO - COLOMBIA.

For consumption and pasillas: it shall be identified only with the inscription DO CAFÉ DE TOLIMA, CAFÉ DE TOLIMA or CAFÉ DE TOLIMA - COLOMBIA.

In any case of marking, the product must include the word COLOMBIA or COLOMBIANO, highlighting the origin of the coffee.

b) In the case of bulk shipments, the coffee must bear the information indicated in paragraph a), in the attached documentation.

c) Additionally, it must be marked according to the regulations established by the competent national and international authorities regarding the technical and commercial information that the coffee bags must bear, such as the OIC lot number;

d) Marks, product descriptors and/or counter-marks denoting a generic or specific origin must not evoke or imitate the origin or the DO CAFÉ DE TOLIMA.

ENDS