

# COLOMBIAN FRUIT TOWARDS THE EUROPEAN UNION BUSINESS OPPORTUNITY

# JOHANNA DUQUE TORO JOSÉ GUILLERMO CALLE VALDERRAMA

University Institution Esumer
International Studies Faculty
Medellín, Colombia

2016

# COLOMBIAN FRUIT TOWARDS THE EUROPEAN UNION BUSINESS OPPORTUNITY

# JOHANNA DUQUE TORO JOSÉ GUILLERMO CALLE VALDERRAMA

Investigation work presented to opt for the title of professional in international businesses

#### **Director:**

Isabel Cristina Álzate Rendón

Specialist in international Management and Logistics

## **Investigation Line:**

**International Commerce** 

**University Institution Esumer** 

**International Studies Faculty** 

Medellín, Colombia

2016

**DEDICATION AND ACKNOWLEDGEMENTS** 

I want to dedicate this degree work to the most important beings in my life.

First of all to God and the Virgin Mary, who with their infinite love and mercy are taking me in

the best path of my existence? Secondly to my parents, who have dedicated all of their effort,

love and teachings to help me achieve the personal and professional successes that I have

reached in my lifetime.

Likewise I want to dedicate to my brother this accomplishment, which I hope will

become a motivation for the goals he wants to achieve.

On the other hand I would like to thank Professor Gustavo Londoño, who in the course of

my career has been a great teacher and support in the knowledge of the world of international

business. Also to thank Professor Isabel Cristina Alzate, who dedicated her time and expertise to

the development and correction of the present degree thesis.

Finally I thank the Institution, which offers all the necessary spaces for the development

of successful professionals.

Sincerely: JOHANNA DUQUE TORO

To my family, who has supported me in this life project, to my wife and son who I

haven't dedicated time to be with on many occasions to dedicate it to my career. I give them my

gratitude for their accompaniment and understanding in this path.

To all of them my most sincere appreciation.

Sincerely: JOSE GUILLERMO CALLE VALDERRAMA

Summary

#### **SUMMARY**

Colombia is a country characterized for its richness in natural resources and the fertility of its land, in addition to the diversity of its climate which facilitates production of a wide variety of fruits.

Currently the fruit industry possesses a great opportunity for the development and commercialization of their exotic as well as traditional fruits from changes in the consumer's behaviors and the international demand. For this, the sector must solve the problems that limit the current exportation potential.

This study will allow to identify the advance that the Colombian fruit sector has had in the last five years, the problems that have arisen from the sector's exportation development, the public and private entities that support the Colombian fruit industry growth and lastly, the multiple positive changes that the economic boost of this sector would bring to the country.

Finally it is important to highlight the opportunity that the signing of the free trade agreement between Colombia and the EU, which generates a reduction in the cost associated to the entry of the product to this destination, in addition to benefits for the Colombian agriculture, added to the sector stimulus towards the improvement of its infrastructure and the quality of its products.

**Key Words:** Free Trade Agreement, European Union, Colombian Fruit Sector, exotic fruits, traditional fruit.

# **CONTENT**

pág.

INTRODUCTION	11
1. PROYECT FORMULATION;ERROR! MARCADOR NO D	EFINIDO.
1.1 Background	14
1.1.1 State of the Art.	15
1.2 Problem Statement	18
1.3 Justificatión	19
1.4 Objectives	20
1.4.1 General Objective	20
1.4.2 Specífic Objectives.	20
1.5 Methodologic Frame	20
1.5.1 Method	21
1.5.2 Methodology	21
1.6 Scope	22
2. EXCUTION OF THE PROYECT; ERROR! MARCADOR NO D	EFINIDO.
2.1 Behavior of the colombian fruit exportation into the EU (2010 – 2015)	23
2.2 Behavior of the EU fruit importations and exportations (from and to other countries)	es) 27
2.3 Furonean Market needs analysis before the fruit sector	31

2.4 Behavior of the colombian fruit sector entrepreneurs before fuit exportation	.;Error!
Marcador no definido.	
3. FINDINGS	39
4. CONCLUSIONS Y RECOMMENDATIONS	53
4.1 Conclusions	53
4.2 Recommendations	56
REFERENCES	58

# **GRAPHIC INDEX**

	pp.
Graphic 1. Bilateral commerce between Colombia and the EU	15
Graphic 2. "Main destinations of the Colombian fresh fruit exportations to the EU"	24
Graphic 3. "Main provinces of origin of the Colombian fresh fruit exportations to the EU"	24
Graphic 4. "Importations of the EU from Colombia in 2013- main member state in millions	s of
€"	25
Graphic 5. "Average consumption of fruits and vegetable in European Countries" Er	ror!
Marcador no definido.	

Table 1. "Importation of fruits during 2013"

# TABLE INDEX

		pp.

30

# ANNEX INDEX

		рр.
Annex	A. Survey directed to 20 companies of the fruit sector	68
Annex	B. Interview	79

# List of Symbols and Abbreviations

# List of symbols

- €. Indicates the symbol of the Euro currency
- \$ Indicates the symbol of the Peso currency

#### List of abbreviations

- FTA. Free Trade Agreement
- EU. European Union

Introduction 11

#### INTRODUCTION

The constant change in the way of doing business, the goods and services exchange on a global level, the international offer and the growing worldwide competition make the pressures that the market enforces and the life levels of the clients, more demanding each time (arroyo, 2002), hence the life styles and the buying behaviors of the consumers modify the exportation opportunities of a country.

Just as (Reina, 2016) illustrates, the Colombian government must design programs that channel resources to the fomentation of agricultural activities in search of improving the international competitively and also the participation in markets in which there is a wider access opportunity, like those in which there are FTAs signed, like for example with the EU.

To correctly understand the present investigation problem area, it is important to know the meaning and differentiate the exotic or tropical fruits from the traditional fruits. The first ones denominated exotic, are characterized for their unique appearance and taste, very different from the traditional ones. Due to their acidulous taste, most of them are used to clench thirst rapidly. They also have medicinal and therapeutic properties" (Legiscomex, 2013).

Colombia currently produces both these kinds of fruits, but being more representative the exportation of exotic fruits that for their unique appearance and taste result to be attractive for the

Introduction 12

EU and other worldwide market consumers chil vegeta, (2014).

However, even through Colombia has a good amount of land to produce any fruit and generate constant exportations, most of the exported production emphasizes only exotic fruits, leaving behind the traditional fruits, which possess an exportation potential with equal competitive importance in the external market.

What was exposed before does not mean that currently Colombia is a recognized country in the fruit market, because even though there is a growing demand before the countries members of the EU, there is no evidence of a competent development in the technification of the national producer and marketer guild in search of an increment in the production and the quality of it, by the contrary, there are very few companies dedicated to satisfying such demand, precluding the necessary supply for the EU and the possibility of making Colombia one of the main fruit supplier countries of the global market (Reina, 2016).

In accordance with all this, the present study seeks to demonstrate the business opportunity that the Colombian fruit sector possesses with the exportation of traditional fruits additional to exotic fruits towards the EU; for this, the subject will be approached from the national and international scope, making emphasis in the behavior of fruit exportation from Colombia to the EU, and analyzing also the behavior of EU fruit importations and exportations (from and to other countries).

Introduction 13

It is sought as well to explain in an extensive way the needs of the European market before the Colombian fruit sector and the behavior of its entrepreneurs before the exportation of exotic and traditional fruits from Colombia to the EU.

Lastly, some of the plans that have emerged to achieve the fruit development in the future are related, in addition to the support of public and private entities that have shown their support to the sector.

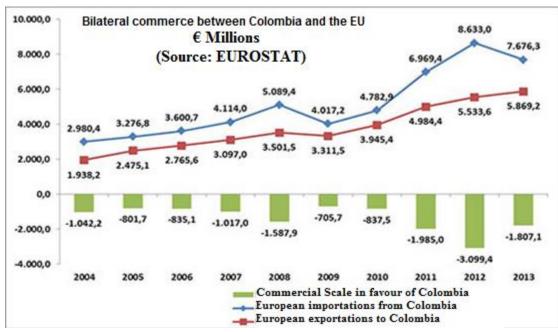
#### 1. PROJECT FORMULATION

### 1.1 Background

Just as the European Union Delegation in Colombia (2016) arguments, Colombia possesses every day more dynamic, open and with more weigh in the region economy, achieving this way to be one of the main partners of the EU in Latin America. Relationships between this economic bloc and Colombia are based on the economic and development, which priorities are: peace, stability and alternate development, justice and human rights, as well as to fomenting commerce and competitively.

In addition to the preceding, commercial relationships between Colombia and the EU have blended successfully during the last decade, more concretely between years 2004 and 2013 where there is evidence that the commercial negotiations reached a 15% of the Colombian commerce with the World, locating the EU as the second commercial partner after the United States of America (European Union Delegation in Colombia, 2016).

In this relation Colombia has exported for 2013 to the European Union, private and agricultural goods for a value of € 7.676 million and has imported manufactured goods for € 5.869 million. (European Union Delegation in Colombia, 2016).



Graphic 1. Bilateral commerce between Colombia and the EU

Source: (European Union Delegation in Colombia, 2016)

The present study will take as an important base the information gathered about investigations in the fruit exportations to the EU, in addition to analysis made by the Commerce Ministry, Industry and Tourism, Procolombia and other nongovernmental bodies about Colombia's fruit exportations towards the different countries that compose this bloc.

#### 1.1.1 State of the Art

There is a series of works and reports that allow identifying some contributions for the state of the present study. This in their turn will conclude some subjects of the problem raised in the subject of the fruticulture and its exportation process to the EU.

"The actual state of the Colombian fruticulture and perspectives for its development" is a work presented by Miranda (2011), Professor Associated to the Agronomy Faculty of the Colombia National University who in his report promotes the fruit sector as a source of Colombian agricultural growth as well as of its habitants, since it's administered with efficiency and sustainability criteria. The author arguments also that while in 1970 the participation of the fruit market area in the non-tradable was of 1, 6%, in 2005 it was of 12, 6%, increment that indicates a larger participation of the sector in the Colombian economy.

For the present study, it is important to highlight that the fruits that are mostly produced in the whole world are mango, pineapple, papaya and avocado. These four varieties are considered "the main tropical fruits"; other fruit, like litchi, durian, rambutan, guava and passion fruit are designated as "secondary tropical fruits" but even though they are produced in less volume their participation in the market has been growing significantly.

In Colombia, the fruit productive chain is considered as one of the economic activities with larger potential, since it's a subsector of wide expansion on an international level and of great importance in the alimentary diet of the world population (Miranda, 2011).

Another work that contributes to the construction of the state of the art is a market intelligence from the informative page Legiscomex (2013) that makes reference to the "Exportation of Colombian exotic fruits". This investigation throws data about the exportation percentage of cape gooseberries, Sweet Passion fruit, Pithaya, tree tomato, Passion fruit, Feijoa, custard apple, Soursop and also Sweetsop, Cranberries, mangoes and mangosteens; which will be detailed in the progress of the present study.

Infoagro (2016) contributes to the state of the art of this study, the investigation "The tropical fruit market in the European Union" which highlights that the European time is each time more limited, for which the tendency to fruit consumption constitutes a good nutritional complement and of easy preparation, which in its turn increases the sector's demand, that's where fresh fruit consumption stands out for the EU of around 30.2 million annual tons, which represents 81 kilos per capita.

Lastly, as an important element of the state of the art, there's the investigation made by Frutismo (2015) called "A trip across Colombia thru fruits", which specifies the variety of climates in the country, that go up to temperate temperatures and get to tropical regions, allowing to enjoy this way of the privilege of crops that produce a great variety of plants and fruits. This investigation, in addition to multiple literatures about Colombian exports to the EU, will be extended in the development of the present study.

#### 1.2 Problem Statement

Thanks to the evolution of the European market, its customs and new consumption tendencies, fruit constitute a nutritional complement, of easy acquisition, low cost and great variety, adjusting this way to the requirements of the modern European consumer.

With the arrival of foreigners to the EU and the interest of responding to their changing taste, wholesalers, hoteliers, foodservice operators, supermarkets and restaurants, are showing great interest in the Colombian fruit acquisition thanks to the great amount of species and flavors offered by the different Colombian temperature zones.

However Toro and Tafur (2007), explain that Colombia because of its climate variety, produces more than 433 species between exotic and non-exotic fruits, currently being the exotic or also called tropical the ones that are mostly exported.

According to Chil vegetal (2014), despite that the exported exotic fruits towards the EU don't reach their maturity stage yet, there is a dynamic increase maintained in their commercialization, which indicates a business opportunity, but without leaving aside the competitive advantage that it possesses by producing multiple varieties of fruit different to the exotic or tropical ones and that becomes market to explore.

The following questions will stablish the problem area that we seek to resolve in the present investigation, and will frame its objectives:

Does Colombia possess a business opportunity for the commercialization of exotic and traditional fruits to the EU, thanks to the advantages given by the Free Trade Agreement – FTA signed between this economic bloc and Colombia?

Has Colombia improved in the past years its exportation volume towards the EU, even more so after the growing demand of fruit in this destination?

Does the Colombian fruticulture sector have governmental or private entities that support the advancement and progress of the production, commercialization and exportation of fruit to the EU?

#### 1.3 Justification

The economic benefits for Colombia carried thanks to an increment in the exportations, are multiple.

The development in some productive sectors has generated a change in the growth strategy. This is the case of the Colombian fruit sector, which has had a sustained increment and evidences in its turn a strong tendency thanks to the changes in the consumers.

Despite the preceding, the income inequality, marginalization, discrimination, among others, are aspects that even though regrettable, make a part of the Colombian issue, where inequality and poverty ns figures involve the countryside as well.

Thru the present study, we show the benefits that our soils generate and the market opportunity that we have with the EU for all the Colombian exotic and non-exotic fruits, generating a

business vision, which would attract a new investment to a little exploited sector by the country.

Due to the fact that the study addresses subjects related to international businesses, it is considered of interest and competency for the professional development of the authors, in addition to being a valuable contribution for companies of the fruit sector and future entrepreneurs eager of investing in potentially growing products in markets like the EU.

#### 1.4 Objectives

**1.4.1** *General Objective.* To demonstrate the business opportunity that the Colombian fruit sector possesses with exportation of traditional fruits in addition to exotic fruit towards the EU.

#### 1.4.2 Specific Objetives.

- To identify the behavior of fruit exportation from Colombia to the EU during the last five (5) years.
- Describing the behavior of EU fruit importations and exportations from and to other countries during the last five (5) years.
- To explain the needs of the European market before the Colombian fruit sector.
- To demonstrate the behavior of the entrepreneurs of the fruit sector before the exportation of exotic and traditional fruits from Colombia to the EU.

#### 1.5 Methodology Frame

**1.5.1 Method.** For the present study we use an exploratory method, since it's focused in the primary approach of the subject of study, which allows understanding the cause of the problem.

These questions are adapted to the needs of the investigation and pretend to identify the size of the fruit companies, the percentage of exported production, the technological advancements, exportation company staff knowledge about the commercialization in the exterior market and finally evidence the opportunity of growth that the sector possesses increasing its exporting portfolio to the EU.

**1.5.2 Methodology.** The recollection of information from primary sources is made from interviews done to 2 experts of the Antioquia agriculture Secretariat, who with their support to this economic line will enrich the findings of this study. From them we obtained the data of some of the companies of the fruit sector, which are surveyed with a sample of 20 people that work in the sector.

In addition to this, we make an analysis of secondary sources, mainly to know the behavior of the fruit exportation sector in Colombia during the last five years, followed by a European market and its needs analysis. Lastly, it is pretended to recognize thru corporate experiences the possible solutions to the issue and the opportunity that the sector possesses as a potential business to diversify its exportations to the EU.

#### 1.6 Alcance

El desarrollo de este trabajo permite identificar la oportunidad de crecimiento de las exportaciones del sector frutícola colombiano hacia la UE, en donde se destaca la exportación de frutas tradicionales en igualdad de condiciones que las frutas exóticas.

Este estudio se fundamenta en datos e información recopilada de los últimos cinco años, y relaciona además los beneficios alcanzados en el Tratado de libre comercio firmado en Bruselas el 26 de junio de 2012.

#### 1. EXECUTION OF THE PROJECT

### 2.1 Behavior of the Colombian Fruit Exportations into the EU (2010-2015)

According to Hernandez (2009), the great changes generated thanks to globalization, facilitated a greater integration on a worldwide level and an intensification of the commercial flows, which contributed without a doubt to an economic growth without comparison and to improve the life levels in the world.

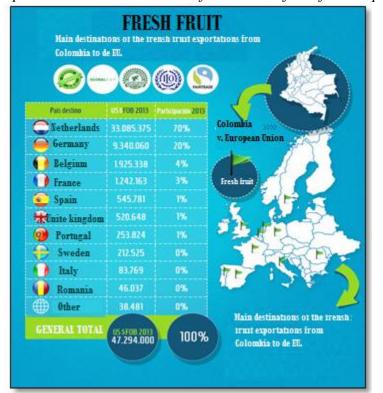
Thanks to this, and evidencing within the commercial growth between countries fruit exportation, it is important to identify the behavior of these from Colombia to the EU during the last five years, in which we highlight a study made by Miranda (2011), exportation of cape gooseberry, gulupa and tree tomato represented the highest fruit exportation volume to the EU in 2012, where the Netherlands was the main destination of exportation. On the other hand, sweet passion fruit, pithaya and passion fruit didn't show an increment in their exportation during that year, opposite case of the soursop and the custard apple, which showed an increment and upturn in their participation.

Concluding the total sales, there is a total average of 79.740 USD for 2012, an 18, 6% more than what is registered for 2011, where the highlight is the demand of countries like the United Kingdom, The Netherlands, Germany, Hong Kong and the Netherlands Antilles

(Legiscomex, 2013)

Furthermore, Procolombia (2016) relates that during 2013 Colombia had a total of US \$47 million of fruit exportation to the EU, which corresponds to a 79% of the sector's exportations. Such percentage comes in its majority from provinces like Cundinamarca, Bogota, Antioquia, Cesar and Valle del Cauca.

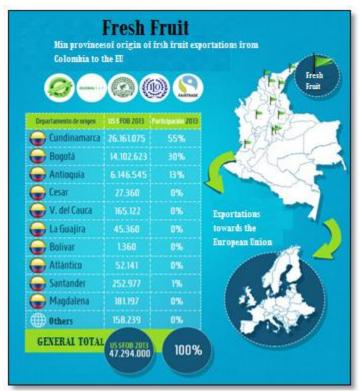
Graphic No. 2 clearly explains participation of Colombian fruit exportation to the EU countries, and graphic No. 3 shows participation by provinces in these exportations.



Graphic 2. "Main destinations of Colombian fresh fruits exportations to the EU"

Source: (Procolombia, 2016)

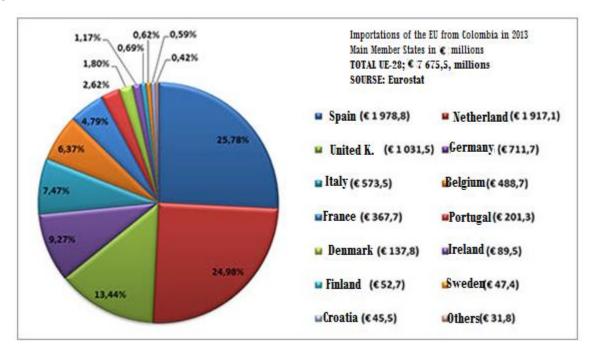
Graphic 3. "Main Provinces of origin of the Colombian fresh fruit exportations to the EU"



Source: (Procolombia, 2016).

Similarly, the European Union Delegation in Colombia (2016), explains that the main countries that Colombia exported its goods to were Spain (25.78%), the Netherlands (24.98%), United Kingdom (13.44%), Germany (9.27%) and Italy (7.47%). It is important to highlight that between the main exportation products fruit production had a percentage of 10.57%. Following Graphic No. 4 shows importation participation by countries of the EU from Colombia.

Graphic 4. "Importations of the EU from Colombia in 2013- Main Member States in millions of  $\epsilon$ "



Source: (European Union Delegation in Colombia, 2016).

On the other hand, the Commerce, Industry and Tourism Ministry of the south American country – Central America Data.com (2015) based on data from the National Statistics Administrative Department (DANE), shows that the shipments of fruit from Colombia to the EU, had increased for the first 10 months of 2014 in \$46 million, providing a difference with regard to the preceding year of \$7 million which draws an 18% increment.

The EU statistics (Eurostat) – Business Information (2015), divulged for 2015 an increase of the agricultural products, in which we can highlight: fresh banana by 297, 7 million euros in increase of 18%, avocado 147%, dry eatable fruits 134% and fresh tropical fruits 22%.

According to the European Union Delegation for Colombia and Ecuador (2015) with the coming into force of the commercial agreement with the EU fresh banana is projected as one of the most quoted products by the European market, where there is an annual progressive tax relief from  $\in$  124 per ton in 2013 to  $\in$  75 per ton in 2020.

#### 2.2 Behavior of the EU fruit importations and exportations (from and to other countries)

In addition to the analysis of the behavior of the fruit exportations from Colombia to the EU, it is important to describe the fruit importations and exportations from and to the EU, that is to say, how this economic bloc carries out exterior commerce operations of this kind of product.

For year 2011, you can find that EU fruit importations summed up to a value of US\$32.296 million, with an increment of 8% in comparison to 2010, highlighting products like fresh grapes, apples and oranges (Procolombia, 2016).

It is important to clarify that Spain is the country that stands out for its great fruit importation and exportation movement in the EU, where the Economy and Competitively Ministry (2012), identifies that more than 70% of shipments in this country are directed to

Germany (22, 4%), France (19,9%), United Kingdom (10,1%), Italy (7,9%), the Netherlands (6,3%) and Poland (4,7%)" and others like Russia, Sweden, United States and Brazil.

Such exportations of more or less importance are the critics that suppose 43,4%, peaches and nectarines that represent 10,2%, the other fresh and desiccated fruit and the rest of the dry fruit, represented in 2012 10% of the exported total, strawberries with an 8,3% and melons and watermelons that reach a 7,5% of the total exported fruit value (Economy and Competitively Ministry, 2012).

With regard to importations, they come in a 69,2% in value and a 62,2% in volume from third countries. This percentage is specified between fresh and desiccated fruit and the rest of the dry fruit, that represent the 39,6%, almonds and hazelnuts with 19,3% of the total, apples and pears with a 12,1%, citruses with 9,57% and plantains with 7,9% (Economy and Competitively Ministry, 2012).

Conversely, the value of importations at an aggregated level ascended in 2012 to 1.573.574 thousands of euros, which supposes an increase of 2,9% with respect to 2011. In addition to this, the volume of importations ascended to 1.373.166 tons, which implies a decline of 2,4% of the importation volume with respect to 2011; in turn, the fruit exportation value ascended in 2012 to 6.268.967 thousands of euros, which implies an increase of 11% with respect to 2011. This value corresponds to a volume of 7.096.619 tons, which supposes an advancement of 8,6% in volume (Economy and Competitively Ministry, 2012).

Within the fruit importations from the EU for the year 2012, you can find Costa Rica as a second potential exportable country, for this year 70% of the exported products towards the EU was concentrated in bananas with 36% and pineapple with 34% (Central America Data.com Business Information, 2013).

The Costa Rican fruit exportations during the first nine months of 2013 ascended to 1.261.6 million. Such exportations were directed in their majority to North America with \$602,8 million and to the EU where \$584,8 million were placed, within this last region the main destinations were the United Kingdom, Holland and Italy, Germany was the sixth market where these exportations were directed. (Central America Data.com Business Information, 2013).

Procolombia (2016), thru a study performed, shows the United States of America as main provider of fresh fruit to the EU, with US\$2.054 million and placing Colombia in spot 27 with respect to the other countries.

In table No. 1, the countries from where the imported fruit came during 2013 to the EU are described in a detailed manner.

Table 1. "Importation of fruit during 2013"

COUNTRY OF ORIGIN	PARTICIPATION % 2013
Spain	22%
Italy	8%
United States of America	8%
The Netherlands (Holland)	7%
South Africa	6%
Turkey	6%
Chile	4%
Germany	4%
France	4%
Brazil	3%
Others	30%

Source: Prepared by the authors with information from Procolombia (2016)

Chil markets (2014), estimates that for year 2013, 85% of the fruit with bone from Spain were directed towards the EU, even though part of the production is lost during transportation and storage. Between the 9000 tons of exported fruit there are peaches, nectarines, apricots, plums and cherries.

At the same time, it was clear thanks to a study by Central America Data.com Business Information (2013), that in the year 2014 Costa Rica made fruit exportations to the EU for a value of \$794.8 million, being pineapple, banana, melon and fresh watermelon the main products. On the other hand, for the year 2015, accumulated to June of this year, Costa Rica's exportation totaled a value of US\$606,3 million and 1.171.700 tons, being Holland, Belgium,

Italy, United Kingdom, Germany and Spain the main destinations of the EU (Central America Data.com Business Information, 2015).

In addition to the above, the Chain of supply (2015) informs that fruit exportation from third countries, reached a total of 6 million tons for the first semester of 2015, placing plantain as main imported fruit, which represents 45% of the total, followed by pineapple with 819.340 tons, citruses with 776.017 tons, grapes with 572.187 tons, apples and pears with 451.831 tons, melon and watermelon with 407.275 tons.

Finally in these data there is evidence that the EU is the second exporter and the main fruit and vegetable importer, where most of the exported fruit are directed to its own member countries, which don't reach to supply the local and external fruit market and the products that contain them, needing this way importation of fruit from other countries.

#### 2.3 European Market needs analysis before the fruit sector

When explaining the needs of the European market before fruticulture, it is pertinent to start with the figures that the Commerce, Industry and Tourism (2012) shows, which reflects the European Union with an Gross Domestic Product (GDP) of 17.578 USD billion and evidencing the EU as the largest commercial world power, generating the fourth part of the world's wealth. It consist of 28 countries with more than 503 million of consumers that spend around 32 thousand USD (\$60 million a year); a value that exceeds more than four times the Colombian

figures, which translates in a good business because of the purchase levels of its inhabitants.

Moreover, Europe possesses the second most important currency in the international markets (Euro) and disposes of a great number of agreements that comprise most of the countries and regions of the world.

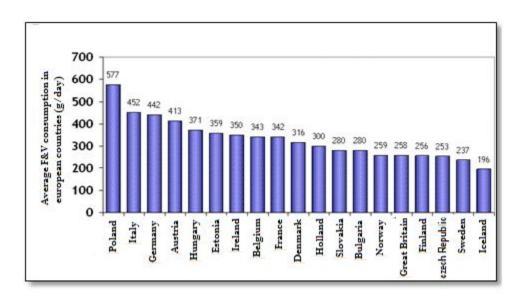
Currently the economic and cultural development has highlighted the consumption of exotic fruit like passion fruit, gooseberry, gulupa, sweet passion fruit, tamarind, tree tomato, baby banana, Hass avocado, pithaya, among others. However in some northern and western states, there has been consumption of fresh fruit and not necessarily exotic. (Commerce, Industry and Tourism Ministry, 2012).

The market is dominated by retail commerce thru supermarket and hypermarket, which control between 50 and 75% of sales, giving the quality an importance level that centers in four aspects:

- Normalization of the products
- Taste quality
- Sanitary quality and of strict residual limitation in alimentary products.
- Recycling of the packaging as well of its treatment (Infoagro, 2016).

The data from the EFSA Eufic (2012), reveal that the average fruit consumption of the Europeans, is of approximately 166 g per day, where the center and east Europe regions have the most consumption, followed by the south regions.

In graphic No. 5 the difference of fruit and vegetable consumption percentage in the different European countries is shown.



Graphic 5. "Average consumption of fruits and vegetables in European countries"

Source: (Eufic, 2012)

It is important to point out for the subject of study that fruit consumption is important for Europeans, since it is associated to a healthy diet, where the WHO recommends consuming approximately 400 grams of fruits and vegetables per day without counting potatoes and starch root vegetables like cassava (Eufic, 2012).

Equally, the WHO suggests the Europeans a consumption between fruits and vegetables of 400 grams per day, to prevent illnesses to which the continent is exposed, since it is estimated that the low consumption of fruits and vegetables could cause nearly 14% of deaths by gastrointestinal cancer, close to 11% of deaths by ischemic heart disease and a 9% of deaths by stroke in the whole world (Eufic, 2012).

Independently of this, the consumption as such that the Europeans have with respect to fruits, depends as well of factors of physical, social, cultural and personal scope, that are determined in tastes, level of independence and health conscience, which are changing in the course of life (Eufic, 2012).

Even though there is no specific figure of why woman in the EU eat more fruit than men, according to Eufic studies, (2012) woman and girls eat a higher amount of fruits than men and boys. In the case of children and teenagers, consumption tends to decrease with age 23; in the case of adults, the relation between age and consumption is inverse, that is to say, the older the age, less the consumption. However, an obstacle for the consumption of these foods is their shortage or limited supply.

Moreover, this study shows that when people get married and/or acquire the integration of a family, fruit consumption increases, since the woman positively influences the care for the health of her family.

According to the European Union Delegation in Colombia (2012), the WHO affirms that products recognized by their origin related to their growing, must have a geographic indication

that makes reference to the name of origin and its characteristics, according to the agreements of the TRIPS or the Lisbon Agreement relating the Protection of the Origin Denominations and their International Registry, which proceed to incorporate instruments for the geographic indications. The preceding allows the recognition of the important trajectory that these products have on a national and international level.

However, for this it is important to guarantee the demanding conditions by the countries, like proportion of a quality standard that maintains the link of the product with the territory, this is how the European consumer obtains great confidence in the product, from which they look for an average of high quality.

#### 2.4 Behavior of the Colombian fruit sector entrepreneurs before fruit exportation

For the present study, it is convenient to revise the behavior that fruit sector entrepreneur currently have before exportation of fruit, which is important to relate from the problem caused by the farmers, who according to Navarrete (2014), have been reduced thanks to the arrangements and demands of the FTAs that Colombia has signed with foreign countries.

Politics along its governments, has offered subsidy to the most organized growers, instead of providing them with public goods to improve the competitively and productivity of the sector. This is where the main Colombian agro problem is evidenced, since there is no adequate transportation network for an agile and economic relocation of the production (Navarrete, 2014).

According with Navarrete (2014) the World Economic Forum grants Colombia very low grades in terms of port, road and rail infrastructure, which translates in a logistic impediment for fruit exportation.

Farmers don't have an appropriate land market that allows the rural advancements to increase the agricultural production among it fruticulture. On the other hand, according to a survey made by the Andes (Navarrete, 2014), it was evidenced how the rural homes don't have the possibility of accessing to a credit loan that assures their agricultural activity, which reduces the investment level and limits the adoption of new technologies.

It's because of the lastly mentioned that the growers possibilities are reduced, causing the migration of the young people from the country side to the city, which is complemented with the violence provoked in some regions of the country. "On the one hand, the parceling of the land from generation to generation implies that the land from the new rural generations don't have the minimum size to assure subsistence levels" (Navarrete, 2014).

There are very few alternatives in the precarious measure of the agricultural market causing another barrier in the income generation processes. These phenomenon and violent events force the farmers to migrate to the cities, provoking an aging of the rural population and putting at risk the country's alimentary security.

Therefore, from 2012 the PNFH (National Horticulture and Fruit Production Fomentation Plan) has been carried out, a project that in 10 years, pretends to boost the sector's productivity

Proyect execution 37

and competitiveness. This one in turn pretends to reform the links in the chain to increase the Colombian horticulture and fruit growers' opportunities (Asohofrucol, 2013).

This statistics are summarized in the benefit of 36.876 growers, who have shown a positive dynamism mainly in the provinces of Antioquia, Caldas, Cauca, Nariño, Quindío, Risaralda and Valle del Cauca. In the frame of execution of the mentioned project, 1496 horticulture and fruit growers from Antioquia acquired technology and technical assistance thru 54 Field Schools for Farmers (Asohofrucol, 2013).

Thanks to this project, the team of (Asohofrucol, 2013), made 2083 visits of direct technical assistance, which caused a decrease in the incidence of plagues and illnesses in the crops.

To have a better motivation before the horticulture and fruit farmers and have higher quality standards, certifications of Good Agriculture Practices (GAP) sensitizing the farmers about the importance of excellent quality production to enter the new markets (Asohofrucol, 2013).

Growers Associations benefit from the support in training, technical assistance, business partner, commercial and project management counseling thru the 25 groups of growers of ECAs (Field School of Farmers) and more of 28 agricultural credits have been approved to the horticulture and fruit growers for a value of \$143,5 million (Asohofrucol, 2013).

Moreover, thru Asohofrucol - Horticulture and fruit growing Association of Colombia, there are projects being carried out to incentive the national production. That is the case of the

Proyect execution 38

National Horticulture and Fruit Growing Plan Phase 2015, which has as primary object "improving the productive, organizational and commercial conditions of the horticulture and fruit growers facilitating their opportune access to the specialized technical assistance, technologic transfer, financing, information and business partner support services" (Asohofrucol, 2016).

Finally, it is important to point out what was revised in the last Horticulture and Fruit Growing National Congress, where Mister Alvaro Palacio General Manager of Asohofrucol highlighted the most important projects that will be executed in year 2016, among them the National Horticulture and Fruit Growing Fomentation Plan (PNFH), a ten year plan, that after four years of execution has obtained important results for the national horticulture and fruit growing, improving the production, organization and commercial conditions of the farmers. According to the General Manager of Asohofrucol Mister Palacio the PNFH will allow to "make us aware of what we have in our territories, learn from them and most of all being able to handle the four stages that the productive system has in any part of the world, which are four stages with a series of processes" (Asohofrucol, 2016).

#### 3. FINDINGS

With the object of gathering more information from the sector, and also evidencing the problem area of study, we make a survey and an interview to people involved in the fruticulture sector. The studied sample comprises:

- Survey directed to 20 companies of the fruticulture sector, in their majority dedicated to
  exportation of fruit, with which it is pretended to identify the size of the companies,
  percentage and description of the exported production, technological advances and
  company staff knowledge before the exportation process.
- Interview conducted to 2 experts of the fruticulture sector, which are: Dorotea Martínez and Hernán Dario Soto, specialized professionals from the Antioquia Agriculture Secretariat.

From the total of the surveyed, to the question: **How many people work in this company?** 57, 1% of the surveyed answer that between 51 and 250 people work in the company, and the remaining 42,9% answer that 11 to 50 people, which allows to evidence that in their majority and according to the selected sample in an aleatory manner, exporting companies from the Colombian fruticulture sector that were surveyed, are constituted by SMEs (Small and Medium-sized Enterprises).

The preceding is better evidenced if we take into account that according to BusinessCol.com (2016), the great majority of Colombian companies (nearly 96%) are SMEs, with a total of 51 to 250 employees, among which the manufacturing and agricultural sectors stand out.

Furthermore, for the questions: What kind of fruits does the company export? And where does the company export their fruit to? Nearly half of the surveyed answered that they mostly export tropical or exotic fruit, displacing traditional fruits to an 11,8%, and the United States and the EU stand out with a percentage of (43,8%), as main destinations for their exportations.

It should be highlighted at this point what the magazine Dinero (2015) exposed that the sector works with entities like the Commerce Ministry, Industry and Commerce, PROCOLOMBIA and the Holland Promotion of Importations Center (CBI), to advance in the consolidation of an exportable offer to the EU, in which not only exotic fruits like for example cape gooseberry, pithaya, gulupa, avocado among others, but also traditional fruits, have an important participation in this exportation line.

The sample of the surveyed exhibits that a wide percentage of their exportable offer is of already processed product. To the question: What percentage of the monthly production does the company export? The surveyed answered that 75% of their production was exported, but they verbally specified that this was not only exported as fruit, but also processed as pulps, preserves and other presentations.

Other points of relevance for the present study have to do with quality of the product that will be exported, the technological infrastructure destined by the companies to satisfy this and the training of the administrative human resource over exterior commerce operations, to which the surveyed companies answered to the following questions: **How do you consider the quality of the company's production?** From the total of surveyed a 71, 4% opined that the fruits destined for exportation are of high quality. **How do you consider that your company's technology is according to the international requirements?** 68, 8% of the surveyed answered that the technology or infrastructure used by their company is competent, and lastly, **how much training has the company staff received to enter the market in a developed country?** 57, 1% of the surveyed opined that the staff receives plenty of training about fruit exportation and incursion in other markets.

Added to the above it is important to bring what was analyzed by Toro & Tafur (2007) about the technological gap existent among the national average, which shows that the great producers use technology and the performance in the investigation centers, from where it was possible to conclude that the investigation average is 1.8 times larger than the average of the best fruit growers and 2.83 times more than the national average, which shows a great backlog in the sector.

To the questions: What constrains does the company have to increase their fruit exportation? And what entities support the company in fomentation of fruit exportation? Even though 46, 7% said that it's the public entities who support and foment exportation, 43% of the surveyed answered that the main constraint to increase the exportation level of the company

is the lack of resources, which reflects that there is still room for investment in the sector, not only from the public entities but also from a private character, which may allow to stimulate exportations and increase participation of the sector in the commercial scale of the country.

In accordance with the preceding questions, it is important to highlight that the Colombian Horticulture and Fruit Growers Association – Farmer Context (2014), emphasizes the great limiting factor that the horticulture and fruit growing importations contain by being higher than the exportations. This is due to the fact that Colombia hasn't tended correctly to the demand of its products, and its lands don't have a high hectare performance, thus the general manager of Asohofrucol Alvaro Ernesto Palacio Pelaez affirms – Farmers Context (2014), that the agricultural sector has been one of the most abandoned, most of all in the issues obtained from contraband and corruption, where there's production being entered thru the frontiers without sanitary of police protection, mining the economy and agricultural production.

On the other hand, with the help of the Agriculture and Development Ministry there have been over 20 competitiveness agreements powered which is the same number of productive chains that have generated around the national fruticulture, which develops two concrete proposals: A National Fruticulture Plan and a Fruticulture Exportation Wager. With base in these two strategies there has been work being carried out in the implementation of the Competitiveness Agreements that will takes us to the consolidation of the Chain Organizations by products like mango, pithaya, baby banana, Tahiti lime, feijoa, avocado, cape gooseberry, pineapple, passion fruit, lulo, raspberry, tree tomato, sweet passion fruit, cashews and guava, that

will make part of the Regional Competitiveness Agreements and will constitute Chain Organizations according to the Law (Miranda 2011).

It is important to point out that fruit exportation from Colombia is a strategy that has been drawn at a long term framed in the 2019 vision and that was identified in the 10 groups of larger potential for exportation, with the objective of entering with a good and quality offer in the international markets and orienting the efforts of the public and private sectors towards the most competitive agricultural species. Includes among others, the positioning of different fruit species of long cycle, Pithaya, mango, baby banana, Tahiti lime, avocado and feijoa and of intermediate cycle cape gooseberry, golden pineapple, passion fruit, lulo, raspberry, tree tomato and sweet passion fruit between the years 2006-2020 (Miranda, 2011).

In terms of the internationalization of the fruticulture companies, the effort made by Procolombia stands out, entity that in addition to promoting participation in fairs and business matchmaking for the sector, develops campaigns to draw in the foreign consumer to Colombian fruit (El Espectador, 2016). About the subject, to the questions: In how many fairs or events does your company annually participate where it exhibits its fruits to the foreign market? And do foreigners present a particular interest in Colombian fruit? the surveyed answered in their wide majority (68,8%) that they took part in 1 to 2 international annual fairs in which they exhibit the variety of Colombian fruit and that tropical and exotic (46,7%) are the most appealing and the ones that mostly awake the visitors' interest, over traditional fruits.

Likewise, el Espectador (2016) relates that Procolombia currently works with different promotion programs of importations to Europe like the CBI (Holland Importation and Development Promotion Center), Sippo (Sweden Importation Promotion Program), and the IPD (Germany importation promotion and adequacy), which promote the sector's exportations to the EU, taking advantage in addition of the FTA in force with this trade bloc. All of this confirms the opined by the surveyed to the questions: **Do you consider that the European Union (EU) is a potential market for the internationalization of the country's fruticulture and development?** And **do you consider that the free trade agreements are a great possibility to open a potential market, focused on the country's fruticulture?** Where the total of the surveyed (100%) answered affirmatively that the EU is a potential market for Colombian fruit exportations, and also a wide majority of 80% said that effectively the FTA is a tool to open potential markets for this sector.

It must be added that the EU generates the fourth part of the world's wealth, for which according to the National Planning Department (DNP) (Commerce Industry and Tourism Ministry, 2012), and with base in exercises that eliminate taxes for exportations, it is estimated that the agreement will have as an effect for the local economy an additional increase of the GDP of 0,46%, while external sales would have a positive variation of 0,71%, and the importations of 1,73%; for its part, remuneration would have an increase of 0,25% in qualified work, and of 0,53% in non-qualified. This process between Colombia and the EU comprised the negotiation of a total of 14 chapters, being the most important the one about market access, which involves tax relief for agricultural goods, as well as for industrial.

The fruits and vegetables in their majority benefit with tax free immediate access, and only for a few cases, there are favorable conditions of market access before third parties. Regarding the origin rules, fruits and vegetables will have to be completely obtained, and for their preparations, 50% will have to be native.

To the question: **How much capacity does Colombia have in terms of soil and climate, to support the external fruit demand?** The surveyed in their vast majority (78, 6%) consider that currently the Colombian soils only need of a few improvements in quality and exportable offer.

To give more clarity to the preceding question and show the diversity of the soils that Colombia possesses, following we mention the characteristics found by Frutismo (2015), about the different regions of the country:

Amazonian Region

It is located south of the Orinoquia, separated from it by the Guaviare River Frutismo (2015). It possess a warm climate provided by its rains, which in its turn helps in the growing of the tropical forest vegetation, producing foods like: "The strawberry guava, star fruit, white cacao, Amazonian Annona, cocona, camu camu, mocambo, amazonian pineapple, Amazonian lulo, Amazonian chili, the famous chontaduro, canangucha and borojo". (Frutismo, 2015).

## **Amazonian Region**

It is located south of the Orinoquia, separated from it by the Guaviare River Frutismo (2015). It possess a warm climate provided by its rains, which in its turn helps in the growing of the tropical forest vegetation, producing foods like: "The strawberry guava, star fruit, white cacao, Amazonian Annona, cocona, camu camu, mocambo, amazonian pineapple, Amazonian lulo, Amazonian chili, the famous chontaduro, canangucha and borojo" (Frutismo, 2015).

## **Andean Region**

This region is formed by the three arms that divide the Andes Mountain Range, with a climate variety and "different zones that go from sea level to mountains of more than 5000 meters". Its lands produce fruits like: banana passion fruit, sour soup, raspberry, pineapple, strawberry, avocado, cape gooseberry, mountain papaya, custard apple, guava, passion fruit, feijoa, lulo, orange, tangerine, tree tomato, apple, banana, pears, sweet passion fruit, melon, watermelon and pithaya, among other many (Frutismo, 2015).

## **Caribbean Region**

This region is composed by "coastal plains and mountain groups that don't belong to the Andean region, like Montes de Maria and the Sierra Nevada de Santa Marta" Frutismo (2015). The majority of its lands produce exotic fruits, but there is also warm and semiarid climate,

where we can find: "Annona, coastal sapote, loquat, tamarind, cashews, corozo, mango and plantain" (Frutismo, 2015).

## **Orinoquia Region**

"This region is located to the east of the Oriental mountain range, to the Orinoco River" Frutismo (2015). It produces savannah vegetation and natural grasses, thanks to its warm and dry climate. It's not a region that exploits too much fruit growing, due to the fact that its inhabitants are more dedicated to the livestock business, however its lands are perfect for citrus crops like: oranges, limes and tangerines, there are a few part where sour soup is planted" (Frutismo, 2015).

## **Pacific Region**

"It's characterized for being one of the most humid regions in the whole planet, with a rainfall of over 10.000 mm3 per year" Frutismo (2015), and an area of 1.300 km, where fruits like borojo, almirajo, loquat and chontaduro.

Finally, to the question: Would you consider that if it's evidenced that fruticulture is a potential business for the country, the sector will have more support and investment? 60% of the surveyed said that if the opportunities for exportation increased and additionally the business opportunity as widely detected, the government as well as the private investors would support the sector even more.

On April 8<sup>th</sup> 2016, we conduct an interview with the Antioquia Agriculture Secretariat officials, Dorotea Martínez and Hernán Soto, with which it is pretended to know the appreciations of the experts about the current state of the sowing, harvest, commercialization, problem areas and benefits of the fruit sector in Antioquia. From this the following appreciations are emphasized:

Do you consider that Colombia possesses the amount of land enough to tend to the national and international demand? The interviewed opine that if it was a question of only amount of land and good climates, Colombia would be a potential market in the agro guild, but we have to take into account that that is just an input, since for a demanding production it is necessary to have a great amount of people that provide the labor of the sector and of course, of a monetary investment enough to equal the competition of other countries and cover the main internal needs of the sector (Martínez & Soto, 2016).

Which fruit for exportation are mostly harvested in Antioquia? The experts say that in Antioquia the most harvested products for exportation are the pithaya, papaya, cape gooseberry, mango and watermelon, it is to say, in their majority exotic or tropical fruit (Martinez & Soto, 2016).

Of exporting production, which is the fruit that is most exported to the EU? Both experts consider that the exportation offer from Antioquia is mostly directed to exotic fruit and that Cape gooseberry generates a great demand in the EU (Martínez & Soto, 2016).

Why does Antioquia export so very few fruits and in such a low proportion? The interviewed state that in Antioquia there is very little fruit being exported due to the fact that the hectares being cultivated barely cover the local consumption, since even though we have good soils, most of them are being used for the construction of buildings and recreational houses, which generates a greater profit before fruticulture if you take into account the bad payment that big companies give to the fruit growers for their production (Martínez & Soto, 2016).

What obstacles do you think preclude the Colombian fruit growing development?

They stablish that there are several obstacles that interpose in the Colombian fruitculture development, among which the following stand out:

- Lack of interest from the government to invest and guide the sector.
- Phytosanitary rules and certificates, which are a great difficulty for fruit exportation, they
  are too demanding and the growers don't have the financial muscle to formalize all those
  conditions.
- The land owners are seeing a better deal in parceling their land and selling it by lots for the construction of recreational houses.
- The current situation of the Colombian farmer is very difficult and in many cases the prices they are being paid for their production is very low; they even work at a loss.
- The acquisitive power of the farmer isn't enough to modernize his farm and his production which makes it very hard for his products to get out of the country.

• Violence in the countryside is another factor that has diminished the rural population due to the displacements, and thus, there are less people who sow.

In addition to the above, the experts say that the investors want to put their money into production in other things but not in the farms because of the multiple risks, what is more there has been knowledge of people who have lost entire crops due to environmental problems and for that reason an investor decides to put his money in other businesses. Furthermore, you cannot overlook an additional ingredient that doesn't allow Colombian fruit exportation to be as attractive and it's the fluctuating prices because of the offer and demand given in the Colombian market, while in the abroad prices are constant and it's not justified to make a great investment for the utilities to be minimum (Martínez & Soto, 2016).

Are there incentives or government programs to back the farmer in his production? Both experts agree that there have been programs, like for example the indigenous reservations, which receive seeds and machinery for production, but they unfortunately take the seeds as foods and let the machinery go bad, making very hard to carry out a program and expect that the results be good (Martínez & Soto, 2016).

What relationship does the UMATA have in the agricultural sector? To give clarity to their answer the interviewed share the meaning of UMATA, this is the Municipal Unit of Agricultural Technical Assistance, dependency of the municipal Mayor's Office in charge of giving free direct technical assistance to the small agricultural producers of its municipality.

Do you think Colombia was prepared for the signing of the free trade agreements?

The experts say that Colombia hasn't been prepared for any FTA, this due to the fact that the countries with which it has made such negotiations have better infrastructure, resources and more advanced technology, while Colombia is barely organizing itself to be able to compete on an international level. The interviewed affirm also, that the subsidies to the farmers that the United States and the EU give out are an additional factor that affects the Colombian competitiveness and these incentives in production are the ones that make the farmers able to lower the prices of the product, which the Colombian farmer who works at a great loss cannot do. An important evidence of the low Colombian competitiveness is how when foreigners arrive to our country to make great quantity fruticulture negotiations they have to be rejected because they don't even reach half of the demanded (Martínez & Soto, 2016).

Do you consider that the fruticulture market is hard to handle? The say that the harvest plagues and pests are the ones who have generated a negative factor that has affected in a high grade the Colombian crops, thus they give the example that approximately 4 years ago, there was a program being carried out in the southwest of Antioquia of sowing of pithaya, which was unaccomplished because of a plague that wiped out the production. Like this event, there have been various similar ones with fruit crops, that is why while there isn't any plague control it will be very difficult to generate reliability and quality in our production (Martínez & Soto, 2016).

Are there a good number of companies that export or have exported fruit to the outside of the country? The experts contribute that the companies that export fruit are very few, due to the fact that most of them are pulp, dried processed fruit and related products exporting companies, it is to say, processed fruit (Martínez & Soto, 2016).

Do you consider that if the corruption and violence problem was solved, the agricultural sector could be seen as a visionary business? The interviewed don't doubt affirming that it is true, and that, if the investment and modernization problems were solved as well, added to the investment and incentive so that the farmer comes back to his lands, it is very possible to improve not only the agro but many other potential sectors for the country (Martínez & Soto, 2016).

#### 4. CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 Conclusions

Colombia is a diverse country, with a wide climate and soil offer that allows national as well as foreign investors the use of these for growing of its different species of fruits, from see level to 2.800 altitude meters. This sector has a variety of 433 native eatable species, making Colombia the first country in the world in fruit biodiversity, before Indonesia and Brazil (Toro & Tafur, 2007), from which we can conclude that even though the natural resources exist, they are not being used in an adequate manner, and outsiders are the ones who end up using our lands for growing of fruits that posteriorly will be destined to international commercialization by foreigners.

Just as (Proexport) recounts, only 18% of Colombia's superficies is used for fruit growing, which corresponds approximately to 700.000 hectares. The preceding demonstrates a high availability in Colombia for the growing of exotic or traditional fruit that supplies the needs of its habitants, and also that is a prosperous business for EU exportation and to other countries.

It is important to point out that these benefits that are provided to us by nature, need of other primary components like labor, quality raw material, an advanced technology that speeds up the production and dispatch processes, an advanced development in the means of transportation of the country and additionally, a constant international revision process for the phytosanitary certification of the products. That's where the great problem area of the country's

fruticulture globalization is originated, since, as Navarrete (2014) says, parceling of the land implicates that the rural generations don't have the minimum size to assure subsistence levels, added to the minimum support for the development of appropriate lands for fruit production, little access to credit loans and the violent phenomenon of expropriation of lands, have made the young to migrate from the countryside to the city, causing this way a worrying shortage of labor for the horticulture and fruit growing production.

On the other hand, for the achievement of a good quality product, qualified fertilizers and other inputs are specially required which have in Colombia a higher price than the ones obtained in the international market, represented as a determined factor in the loss of Colombian agricultural profitability and competitiveness (Marin, 2013).

Colombia, for its part, doesn't count with an adequate transportation network for the agile and affordable relocation of the production, since according to the World Economic Forum (Navarrete, 2014), the country possesses the lowest grades in terms of port, road and railroad infrastructure, which implies a greater cost for the exportation fruit and a longer time in relocation, which sometimes reduces the good condition of the production.

The incentives and subsidies granted to the growers are much less than the ones received by fruit producers in other countries of the world.

Even though the present study seeks to demonstrate the business opportunity that Colombia possesses in fruit exportation exotic as well as traditional, all the required conditions

must be improved to make this sector attractive for investment and posterior fruit exportation to the EU market, which requires multiple variety of these as the ones produced by Colombia.

The fruticulture entrepreneurs, currently export more exotic fruit than traditional fruit, thanks to its differentiating factors like taste, exclusivity and medicinal use, for those without competition on international level, and thus, not identifying an issue in their cost, while, for the contrary, traditional fruit is produced in other countries at a lower cost and with better quality because of their processes modernization, which makes us little competitive in this line.

Finally and as main conclusion, we can affirm that Colombia possesses for its soil and climate variety a competitive advantage, which allows exotic and traditional fruit growing, expanding the internationalization possibilities of the fruit sector, and that if the infrastructure and governmental support conditions were to be improved, Colombia could take full advantage of the FTA with the EU expanding the possibilities of entering this market with a wider fruit offer.

#### 4.2 Recommendations

In accordance with the conclusions exposed before, the Colombian fruit sector problem areas are clearly evidenced, to which we raise the following recommendations in search of taking advantage of the potential business for the country in traditional and exotic fruit:

To improve the lack of labor for fruit production in the country, the government shall implement and intensify the public policy construction process for the agro in Colombia, with an offer in public services, the obtainment of credits and agricultural insurances for medium and small producers (Navarrete, 2014).

An example of this is the Rural Opportunities program from the Agriculture Ministry, which gives co-financed resources for the hiring of technical assistance. Even though this income helps to the improvement of the improvement of the fruit growers, it's too minuscule in comparison to the amount of subsidies that the different agricultural guilds receive, for which there should be other financing means being presented.

From the signing of the Peace Agreement currently negotiated by the Colombian Government and the FARC guerrilla group, seeking the restitution of lands for the violence victims and the forced displacement, added to the granting of capital for the sowing and restructuration of the fields. This way it is sought to boost the rural development.

Facilitate the acquisition of technology for the cultivation and harvest of fruits in Colombia, from the granting of credits to the farmers and with the only end of taking advantage of the FTAs that Colombia has subscribed with other countries, in which it enjoys of low taxes and in some cases it is free of them. This in its turn increases the opportunity of obtaining machinery and imported input that raises the competency in production and dispatch of the Colombian fruit.

Even though in the present study we don't address the requirements for the procurement of the sanitary certification from the EU, despite that the information is very extensive and different for each kind of fruit, you can identify thru the interview made to the Antioquia Agriculture Secretariat officials, the high cost that this process generates. For which without belittling its importance for fruit exportation, it is important to clarify to the sector's entrepreneurs, that a certification process must be managed, which generates a high monetary investment for which there should be governmental support and additional endorsement from the Colombian horticulture and fruit growing sector unions.

Finally, we recommend to the fruit sector entrepreneurs, to take advantage of the fruit demand in the EU and exporting of all the Colombian fruits, exotic as well as traditional, since it's demonstrated that both are potential production, for the taste and texture that the different Colombian climates and soils generate.

### **REFERENCES**

Agronegocios. (February 10th 2016). The *EU and the United States resume commercial negotiations on F-22 to advance in the TTIP: Agronegocios*. Obtained from the Agronegocios website: http://www.agronegocios.es/la-ue-y-estados-unidos-reanudan-el-22-f-las-negociaciones-comerciales-para-avanzar-en-el-attip/.

Asohofrucol. (2013). PNFH 2012- 2022 The execution of the national plan of horticulture and and fruit growing promotion advances. *Fruits and Vegetables*, 1-40.

Asohofrucol. (March 24th 2015). Sowed Area, Production and yields: *Asohofrucol*.

\*Obtained from the Asohofrucol website:

http://www.asohofrucol.com.co/interna.php?noti=168.

Asohofrucol. (April 17th 2016). *Balance and conclusions of the VIII National Horticulture and fruit growing Congress: Asohofrucol.* Obtained from the Asohofrucol website: http://www.asohofrucol.com.co/interna.php?cat=6&scat=39&act=1.

Asohofrucol. (April 17th 2016). *National Horticulture and fruit growing Promotion Plan Phase 2015: Asohofrucol.* Obtained from the Asohofrucol website:

http://190.144.45.108:930/.

Aurelio, I. (2016). Fruits, the new exportation path. *Dinero*, 1.

BusinessCol.com. (April 16th 2016). *SME Section: BusinessCol.com*. Obtained from the BusinessCol.com website: http://www.businesscol.com/empresarial/pymes/.

Bussines Bridge Associate Consultants. (April 8th 2014). International Market *Perspectives for horticulture and fruit growing from clean production:* Bussines Bridge Associate Consultants. Obtained from the Bussines Bridge Associate Consultants website: http://www.asohofrucol.com.co/archivos/biblioteca/14Business%20Bridge.pdf.

Supply network. (December 14th 2015). Fruit and Vegetable importation from countries outside the EU remains stable: Supply network. Obtained from the Supply Network website: http://www.cadenadesuministro.es/noticias/la-importacion-de-frutas-y-hortalizas-procedente-de-paises-de-fuera-de-la-ue-se-mantiene-estable/.

Central América Data.com Business Information. (December 5th 2013).

Commercialization channels in the United Kingdom: Central América Data.com

Business Information. Obtained from the Central América Data.com Business

Information website:

http://www.centralamericadata.com/es/article/home/Canales\_de\_comercializacin\_en\_el\_ Reino Unido.

Central América Data.com Business Information. (January 20th 2015). *Colombia increases fruit exportation to Europe: Central América Data.com* Business Information. Obtained from the Central América Data.com Business Information website: http://www.centralamericadata.com/es/article/home/Colombia\_aumenta\_exportacin\_de\_f rutas\_a\_Europa.

Central América Data.com Business Information. (August 12th 2015). Colombian Agro exportations to Europe grow: Central América Data.com Business Information. Obtained from the Central América Data.com Business Information website: http://www.centralamericadata.com/es/article/home/Crecen\_agroexportaciones\_de\_Colombia\_a\_Europa.

Chil markets. (July 17th 2014). Spain annually exports 900.000 tons of stone fruit: *Chil markets*. Obtained from the *Chil markets* website: https://www.chil.org/mercados/news/2014/07/17/espana-exporta-anualmente-900000-toneladas-de-frutas-de-hueso.

Chil vegetal. (April 29th 2014). The potential of exotic fruit in the european markets: *Chil vegetal*. Obtained from the *Chil vegetal* website: https://www.chil.org/produccion-vegetal/news/2014/04/29/el-potencial-de-las-frutas-exoticas-en-los-mercados-europeos.

Livestock Context. (2014). "In Colombia we import more than what we export", Asohofrucol. Livestock Context, 1.

Livestock Context. (2014). The blunders of the Santos Government with the agricultural sector. Livestock Context, 1.

European Union Delegation in Colombia. (2012). European Union Colombia Commercial Agreement. European Union Delegation in Colombia *Publication*, 11-29.

European Union Delegation in Colombia. (August 3rd 2015). In two years of term of the Commercial Agreement with the EU, Colombian agriculture has been one of the most benefitted sectors: European Union Delegation in Colombia. Recovered March 3rd 2016, from the European Union Delegation in Colombia website: http://eeas.europa.eu/delegations/colombia/press\_corner/all\_news/news/2015/20150803\_es.htm.

European Union Delegation in Colombia. (February 29th 2016). Bilateral commerce between the European Union and Colombia: European Union Delegation in Colombia. Recovered March 2nd 2016, from the European Union Delegation in Colombia website: http://eeas.europa.eu/delegations/colombia/eu\_colombia/trade\_relation/bilateral\_trade/ind ex\_es.htm.

European Union Delegation for Colombia and Ecuador. (January 2015). Good *Commerce between the European Union and Colombia:* European Union Delegation for Colombia and Ecuador. Obtained from the European Union Delegation for Colombia and Ecuador website: http://www.eeas.europa.eu/delegations/colombia/documents/press\_corner/25-02-15-publicación-primer-ano-de-entrada-en-vigorac-final-alta-resolución.pdf.

Delgado, S., & Alonso, M. (2011). European fruits and vegetables. *euroXpress European Union news portal*, 1.

Dinero. (June 22nd 2015). *Fruits, the new exportation path: Dinero*. Obtained from the Dinero website: http://www.dinero.com/pais/articulo/exportaciones-colombianas-fruta/209741.

El Espectador. (February 4th 2016). Fruits that ProColombia will offer to the German. *El espectador*, pag. 1. Obtained from the El Espectador website:

http://www.elespectador.com/noticias/economia/frutas-procolombia-ofrecera-los-alemanes-articulo-614690.

Eufic. (January 2012). Consumption of fruits and vegetables in Europe - *Do the Europeans take enough?*: *Eufic*. Obtained from the Eufic website: http://www.eufic.org/article/es/expid/Consumo-frutas-verduras-Europa/.

Frutisitio. (March 5th 2015). *Inniciatives to fructify the fields in 2015: Frutisitio*.

Obtained from the Frutisitio website: http://www.frutisitio.com/index.php?option=com\_content&view=article&id=12:iniciativ as-para-fructificar-el-campo-en-2015&catid=25&Itemid=478.

Frutismo. (July 31st 2015). A trip across Colombia thru fruits: *Frutismo*. Obtained from the Frutismo website: http://www.frutismo.co/un-viaje-por-colombia-a-traves-de-las-frutas/.

Frutismo. (July 31st 2015). A trip across Colombia thru fruits: *Frutismo*. Obtained from the Frutismo website: http://www.frutismo.co/un-viaje-por-colombia-a-traves-de-las-frutas/.

Hernández, R. M. (May 4th 2009). Socioeconomic importance of the fruit sector in Colombia: La Salle University. Obtained from the La Salle University website:

http://repository.lasalle.edu.co/bitstream/handle/10185/5156/T12.09%20H43i.pdf? sequence = 1.

Infoagro. (March 6th 2016). The tropical fruit market in the european Union: *Infoagro*. Obtained from the Infoagro website: http://www.infoagro.com/frutas/frutas\_tropicales/tropical\_fruits4.htm.

Business Information. (August 12th 2015). Agro exportations from Colombia to Europa grow: Central América Data.com Business Information. Obtained from the Business Information website: http://www.centralamericadata.com/es/article/home/Crecen\_agroexportaciones\_de\_Colombia\_a\_Europa

Legiscomex. (May 15th 2013). Market *Intelligence - Colombian Exotic fruit exportation:*Legiscomex. Obtained from the Legiscomex website:

http://www.legiscomex.com/BancoMedios/Documentos%20PDF/exportaciones-estudio-frutas-exoticas.pdf.

Marín, A. (September 7th 2013). The owners of fertilizers Colombia. El tiempo, pags. 1-1

Martínez, D., & Soto, H. D. (April 8th 2016). Colombian fruticulture Description, Including the Antioquia region. (J. Duque, & J. G. Calle, Interviewers).

Commerce Industry and Tourism Ministry. (Dicember 11th 2012). 100 questions about the commercial agreement with the European Union: Commerce Industry and Tourism Ministry

Recovered February 29th 2016, from the Commerce Industry and Tourism Ministry website: http://www.mincit.gov.co/publicaciones.php?id=3405.

Economy and Competitiveness Ministry. (2012). The Agro-alimentary balance in 2012: Economy and Competitiveness Ministry. Obtained from the Economy and Competitiveness Ministry website: http://www.comercio.es/es-ES/comercio-exterior/informacion-sectorial/agroalimentarios/estadisticas/PDF/2013-10-03%20(Corr)Balanza%20Agroalimentaria%202012%20COMPLETA%20COLOR.pdf.

Industry and Commerce Ministry. (May 24th 2014). Free *Trade Agreement Colombia European Association AELC:* Industry and Commerce Ministry. Recovered March 3rd 2016, from the Industry and Commerce Ministry website: http://www.colsuizacam.com/Balance%20TLC%202014.pdf.

Miranda, D. (2011). The current state of Colombian fruticulture and perspective for its development. *Bras. Frutic., Jaboticabal - SP, Special Volume, E. 199-205*, 199- 205. Obtained from http://www.scielo.br/pdf/rbf/v33nspe1/a23v33nspe1.pdf.

Navarrete, S. (April 30th 2014). "FTA, far from being the main Colombia agro problem". *El espectador*, pag. 1.

Procolombia. (2012). Commercial *Agreement with the European Union: Procolombia*.

Obtained from the Procolombia website:

http://www.procolombia.co/sites/default/files/cartilla\_2\_-\_agroindustria.pdf.

Procolombia. (2013). Commercial *agreement with the european union: Procolombia*. Recovered March 3rd 2016, from the Procolombia website: http://ue.procolombia.co/oportunidad-por-sector.

Procolombia. (April 29th 2015). Seven facts you didn't know about exporting fruit to Europe: *Procolombia*. Obtained from the Procolombia website: http://www.procolombia.co/actualidad-internacional/agroindustria/siete-datos-quedesconocia-para-exportar-frutas-europa.

Procolombia. (February 28th 2016). Commercial *Agreement Colombia: European Union*- *Procolombia*. Recovered March 3rd 2016, from the Procolombia website: http://ue.procolombia.co/oportunidad-por-sector/agroindustria/frutas-frescas.

Proexport. (s.f.). Economic *Sectors: Proexport*. Obtained from the Proexport website: http://www.simco.gov.co/simco/portals/0/Guia\_Inv\_2008/fscommand/mipdf17.pdf.

Reina, M. (April 15th 2016). Internationalization of the Colombian economy- Commerce and Investment: *Fedesarrollo*. Obtained from the Fedesarrollo: http://www.fedesarrollo.org.co/wp-content/uploads/2011/08/comext.pdf.

Toro, J. C., & Tafur, R. (2007). Investigation Needs in fruit. Colombia Tropical *Fruit for the world: production, agroindustry, commercialization and productive chain* (pags. 23-40). Santiago de Cali: Produmedios.

Unión Europea. (December 8th 2015). Countries: *European Union*. Obtained from the European Union: http://europa.eu/about-eu/countries/index\_es.htm.

Annexes 68

### **ANNEXES**

# Annex A. Survey directed to 20 companies of the fruit sector

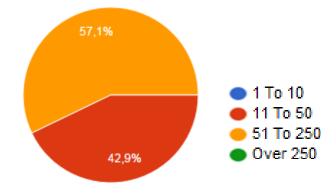
## COLOMBIAN FRUIT IN THE EUROPEAN UNION (EU) MARKET

This survey is directed to 20 companies of the fruit sector, where it is pretended to identify how big the company is, the percentage and description of the exported production, the technological and company staff knowledge advancements, the difficulties and benefits of the market and finally the evidence that will allow the growth for the country and its population.

# 1. How many people work in this company?

- o 1 to 10
- o 11 to 50
- o 51 to 250
- Over 250

### PERCENTAGE OF RESPONSES



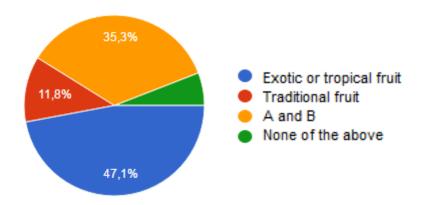
Johanna Duque T. – José G. Calle V.

**Educational Institution ESUMER** 

Annexes 69

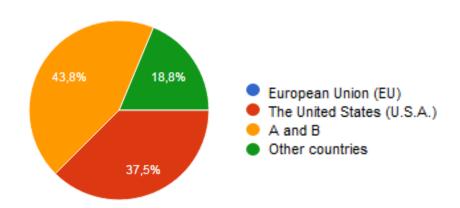
# 2. What kind of fruit does the company export?

## PERCENTAGE OF RESPONSES



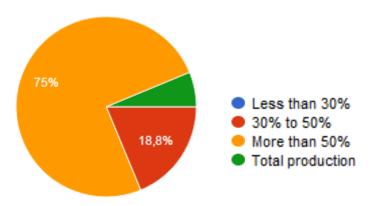
# 3. Where does the company export to?

- European Union (EU)
- Unite State (U.S.A)
- A and B
- Other countries



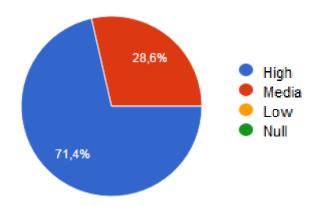
# 4. What percentage of the monthly fruit production does the company export?

- Less than 30%
- o 30% to 50%
- More than 50%
- Total production

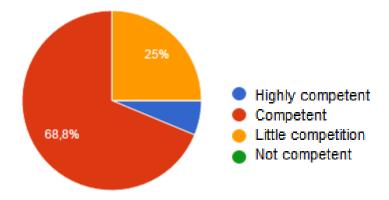


- 5. How do you consider the quality in the company's production?
- o High
- o Media
- o Low
- o Null

# PERCENTAGE OF RESPONSES



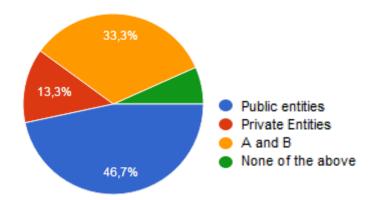
- 6. How do you consider your company's technology according to the international requirements?
- Highly Competent
- Competent
- Little competition
- Not competent



# 7. What entities support the company in fomentation of fruit exportation?

- Public Entities
- Private Entities
- $\circ$  A and B
- None of the above

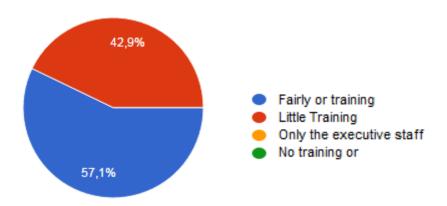
## PERCENTAGE OF RESPONSES



# 8. How much training has the company's staff received to enter the market in a developed country?

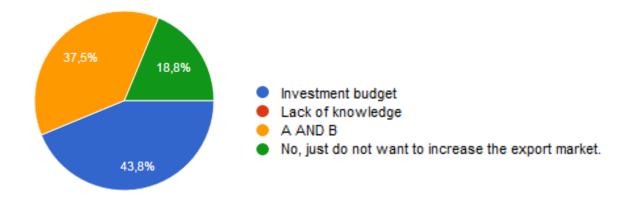
- Fairly or training
- o Little training
- o Only the executive staff
- No training or

# PERCENTAGE OF RESPONSES



# 9. What constrains does the company have for exportation of its fruits?

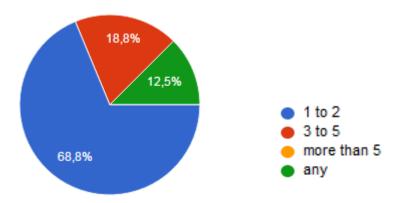
- a. Investment budget
- b. Lack of knowledge
- c. A and B
- d. No, just do not want to increase the export market.



10. In how many fairs or events does the company annually participate where it exhibits its fruits to the foreign market?

- a. 1 to 2
- b. 3 to 5
- c. More than 5
- d. Any

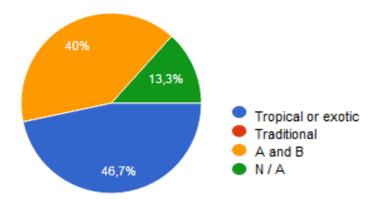
## PERCENTAGE OF RESPONSES



11. In the case of the preceding question being affirmative. Do the foreigners present a particular interest in Colombian fruit?

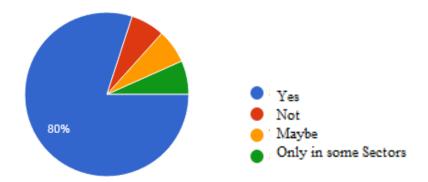
- a. Tropical or exotic
- b. Traditional
- c. A and B
- d. N/A

# PERCENTAGE OF RESPONSES



12. Do you consider that the free trade agreements are a great possibility to open potential markets focused in the country's fruticulture?

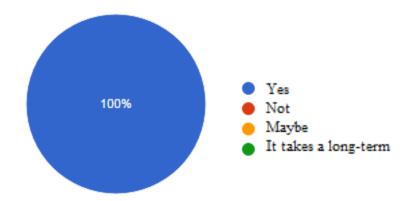
- a. Yes
- b. Not
- c. Maybe
- d. Only in some sectors



13. Do you consider that the European Union (EU) is a potential market for the internationalization of the country's fruticulture and development?

- a. Yes
- b. Not
- c. Maybe
- d. It takes a long-term

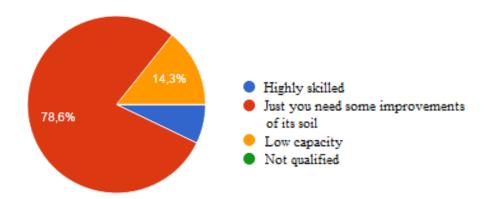
# PERCENTAGE OF RESPONSES



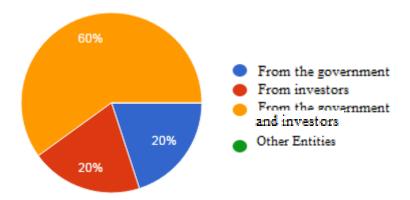
14. How able is Colombia on a level of soil and climate to support the external demand of fruit?

- a. highly skilled
- b. Just you need some improvements of its soil
- c. Low capacity
- d. Not qualified

# PERCENTAGE OF RESPONSES



- 15. Finally, do you consider that if there is evidence that fruticulture is a potential business for the country there would be a larger support and investment for the sector?
- a. From the government
- b. From investors
- c. From the government and investors
- d. Other Entities



Annex B. Interview

Name: Antioquia Agriculture Secretariat

**Objective**: To know firsthand the state of the sowing, harvest, commercialization, problem areas

and benefits of the fruticulture sector in Antioquia.

Interviewer: Johanna Duque and Jose Guillermo Calle

**Interviewed:** Dorotea Martínez and Hernán Darío Soto

**Title:** Agro Specialized Professionals

DESCRIPTION OF COLOMBIAN FRUTICULTURE, ESPECIALLY FROM THE

**ANTIOQUIA REGION** 

On April 8th 2016, an interview to the Antioquia agriculture secretariat officials Martinez

& Soto (2016) was conducted, where it was pretended to know firsthand the state of the sowing,

harvest, commercialization, problem areas and benefits of the fruticulture sector in Antioquia.

From there the following questionnaire was stablished:

1. Do you consider that Colombia possesses enough quantity of lands to a tend to the

national and international demand?

2. What fruits for exportation are mostly harvested in Antioquia?

3. Of exportation production, which one is the most exported fruit to the EU?

4.	Why does Antioquia export so little fruit and in such a small quantity?
5.	What obstacles do you think preclude the Colombian fruticulture development?
6.	Are the government incentives or programs to back the farmer in his production?
7.	What relation does the UMATA have in the agriculture sector?
8.	Do you think Colombia was prepared for the signing of the Free trade agreements?
9.	Do you consider that the fruticulture market is hard to handle?
10.	Are there a good number of companies that export or have exported fruit outside the country?
11.	Do you consider that if the corruption and violence problem were to be solved, the agriculture sector could be seen as a visionary business?