INTRODUCTION

Globalization, free trade, competitiveness, represent challenges and complex challenges for agri-food products origin. Currently the traceability of food is defined by national and international regulations, including the ability to find and track through all stages of production, processing, distribution, of food, an animal, etc., (PRO MEXICO, 2019).

Food traceability is a tool for all elements involved in the production of a product (raw materials, additives, packaging, etc.), and all stages by passing said product (harvest, production, processing, storage, distribution, etc.), and all stages by passing said product (harvest, production, processing, storage, distribution, etc.), ie the ability to reconstruct the history of a product and the conditions surrounding it throughout the entire food chain, from the farm or packinghouse to the table.

Implementing a traceability system in production, packaging and distribution of products hortofrutícolas generates various benefits that may include the following:

✓ Determine the history of a product
✓ It enables rapid localization of the source of a non-conformity of food that could potentially contaminate them, to be removed from the market.
✓ Minimize the economic impact of the individualizing companies, food or batch that have a non-conformity to safety.
✓ It facilitates the definition of liability to a health emergency or deteriorating quality standards known as identifies the chain link where the problem occurs (Rodriguez, Gonzalez, Arana Sanchez, & Vallejo, 2010).

This lies in the combined international context to the growth of outbreaks Foodborne Diseases (ETA’s), associated with the consumption of fresh fruits and vegetables in the world and has killed people, generated that health authorities from various countries, They strengthened their surveillance measures to ensure that the products they buy do not pose any health risk to consumers. A sample builds Article 18 of the CE178 / 2002 Regulation of the European Parliament which "establish the general principles and requirements of food law, the European Authority creates food security and operating

*Corresponding author: Martinez Carrillo

Assigned to the National Technology Mexico / Apizaco Institute of Technology, Division of Postgraduate Studies and Research, Carretera Apizaco Tzompantepec s / n, Conurbado-Tzompatepec Apizaco, Tlaxcala, Mexico, C.P. 90300
procedures are set to food security "entered into force in the European Union since 2005, (Borrero, 2018).

Thus it is justified the implementation of a system approach to verify traceability of primary production, packaging and distribution of horticultural products originating in Mexico and have a final distribution in international markets (Salvador Gonzalez, 2015).

In Mexico, the Federal Law on Plant Health recently amended and published in the Official Journal of the Federation since July 26, 2007, marks an obligation to Mexican farmers and obligation to the producers to the application of Good Agricultural Practices. Therefore, the guidelines for voluntary implementation of good management practices and production processes and packaging of fruits and vegetables for fresh consumption. In section III, set as a basic requirement implementing traceability systems to identify the conditions under which a product is established (Borrero, 2018).

In this context, a food system comprised value chains, which initiate in the primary production unit and end in the table of the consumer is established; each link is located in a geographical area and competitiveness of the organization strengthens the whole system. A value chain allows you to split the company in its strategically relevant activities in order to achieve competitive advantage by performing better or less or cost competition (Porter, 2009).

Sustaining competitiveness in today's environment, according to Porter, 2009, describes allow the entry of new companies in the various links of the productive chains, local, national and international, being this fact that drives the participating organizations reduce costs, improve the process and increase organizational ties.

Objective
Propose a general methodology for a packing company Persian lime Municipality of Martinez de la Torre, on the eve of the design, implementation and evaluation of a system aligned traceability to the laws and regulations of international markets that allow risk reduction transmission of foodborne illness associated with the consumption of fresh agricultural products.

MATERIALS AND METHODS
The study has an impact for the town of Martinez de la Torre, located in the northern part of the state of Veracruz, this has a land area of 573.99 square kilometers, between parallels 19° 58' and 20° 17' north latitude; meridians 96° 56' and 97° 10' west longitude; altitude between 10 and 400 m. Limiting the north with the municipalities of Papantla and Tecolutla, to the east and southwest municipality of San Rafael, to the south with Atzalan and Misantla and to the northwest with San Jose Tlapacoyan and Acapetla. In Figure 1 the extension of the town shown. The prevailing climate is warm humid with abundant rains in summer 79% (Municipality of Martinez de la Torre, 2019)

Based on the list of producers registered in the System Safety, 39 exporting Persian lemon are located, for the case study access to them is allowed.

METHODOLOGY
Agrifood traceability system aims to record all information related with the supply chain from before cultivation to product distribution and associate other data such as environmental or certifications. Which it is why we want to develop a system of agricultural traceability tool based on Michael Porter's "value chain" to bring greater trust, transparency distributors and consumers.

The value chain is used, Figure 2 Michael Porter as a tool for the analysis procedure of the SME exporter of the town of Martinez de la Torre, Ver., whose market is the US and Japan. the elements that value chain was divided into two observation guides:

![Figure 2 Value Chain Porter](Source: (Porter, 1985))

Basically, the value chain and marketing go hand in hand because, depending on the image of the company for customers, this is the value of good marketing; instead how it should be the cost structure to survive in the market. For analysis of the activities of the SMEs specifically the town of Martinez de la Torre whose market is the US and Japan continued working methodology set forth in Figure 3. Although it can be complex to understand, it really is not, because everything is studied in the value chain it will be used
to develop the pros and cons that have the organization, seeking to improve their weaknesses and then carry it out as a main strategy in marketing.

The procedure for analyzing the value chain consists of the following four phases, as can be seen in Figure 3.

**Phase 1. Definition of the value chain**

As a first step an instrument (questionnaire) is applied to the area responsible for the Safety of the company, it was divided into items, which aims to provide an observation of the current situation of balers lemon. It was applied by two validated instruments by experts from the Instituto Tecnologico de Apizaco, to be responsible for the safety area.

The design is divided into the following topics

- General information about the company
- Administrative aspects
- Technology
- Human Resources
- Processes
- Production area
- Responsiveness production
- Sales area

**Phase 2. Characterization of the value chain**

With support activities that make up the company, that is, giving way followed primary activities that make the company applied an observation guide (Borrero, 2018). To support activities that make up the company delivered an observation guide production to control each area.

**Phase 3. Diagnosis of the value chain**

With the thrown data Ishikawa diagram which can be viewed in Figure 4 is valued. Ishikawa diagram of export packing Persian lemon.

In the above diagram Ishikawa red dots, listed in Figure 5 is identified:

**Phase 4. Design value chain**

From the results a decision is made Depending on the level of capacity utilization. In this particular case, it is arranged to

The obvious shortcoming is the lack of control and organization are described below:

- Reception fruit: lack of documentary checks the first control within the baler lemon, because it initiates internal traceability, on the other hand, initiates safety control, but being a filter to ensure the performance you have to Fruit.
- Registration of employees: within the area of human resources, administrative part, has an area for improvement because there is no record of incoming and outgoing personnel, creating a conflict with the bookkeeping for hours to be paid in the day for each employee.
- LOG (PRODUCTIVITY) in the operating part (area 40 lb) packed cartons for each employee in the bottling and packaging, collaborators in the allocation of their activities to working hours, performed manually filling and boxes packaging the final product, however there is no formal mechanism for registration as each partner is effected by placing a pencil your name in the box so that the charge of the area to the end of the day you register your productivity.
- Outdated formats: those responsible have not done in a timely manner filling logbooks and record corresponding to the day, these documents respond to the paperwork covering the rules PRIMUS GFS Version 3.0.
- Outdated inventories, to supply inputs to the day: based on the previous point does not have the information covering the administrative side of the organization.

**Proposed development phase of the value chain**

From the results a decision is made Depending on the level of capacity utilization. In this particular case, it is arranged to
maintain the existing capacity by utilizing the tool of the value chain.

To begin monitoring the supply chain displayed in Figure 4. It traceability projects backward, and forward inner product is generated.

Traceability backwards comprises 3 Persian lemon providers who Dispensed raw material which gives the packing operation. Within the internal traceability, processes occur which are synthesized in the supply chain designed in Figure 6.

Building supply chain baler are integrated by three types of companies: input suppliers of raw material (lemon Persian, the packing processing Persian lemon, logistics company, customer (distribution company in the international market ) (Rojas Muñoz, 2019).

The supply chain is short, and the raw material does not receive a broad and profound transformation. However, it creates a network model (PRO MEXICO, 2018).

It focused on real-time demand, communication is generated with suppliers of raw materials to supply the order that promises to customers, taking into account the criteria: color, size, size, appearance, mainly. Supply is given the first three days of the week to start with the activities of rest and subsequent processes in the packing(Balleza GUTIERREZ, 2009). Within the integration value chain it arises Table 1.2, describing the links for which the product falls Persian limes in the town of Martinez de la Torre.

For the path through the product and thus the capacity of the baler, the value chain is constructed, shown in Figure 4, Which identify support activities and main activities:

![Figure 4 Value chain of persian lemon exportingpacking](Source: Compiled from)

Within the construction of the value chain, stands the main activities, and that is where the traceability of the product is located.

**DISCUSSION**

The analysis of the previous value chain of strategic points: in support activities

- Infrastructure has the potential to bring up the production, however, it must generate the appropriate preventive maintenance.
- At the operating staff must constantly motivate and remunerate to create that corporate loyalty.
- Within purchasing activities, it should be constantly updated and avoid gaps in the necessary inputs.
- Traceability of the product comprises the main activities:

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<td>harvest</td>
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<td>harvest Manual</td>
<td>Reception Wax Classification</td>
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<td>internal traceability is done in the packing following the rules governing the target market (GFS PRIMUS Version 3.0, System Risk Reduction SRR).</td>
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<tr>
<td>FINAL PRODUCT</td>
<td>LEMON TREE</td>
<td>LEMON IN BULK</td>
<td>FRESH FRUIT</td>
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Source: Compiled from(SAGARPA, 2017).
CONCLUSIONS

the potential of the packer and exporter of Persian lime that was case study, marking as an indicator production averaged 200 bars per hour worked, clearly allowing can commit more production to new customers for markets is recognized that already have certifications (GFS PRIMUS version 3.0).

On the other hand, an entry area extra financial resources is resorting to open the doors to the maquila, as the process is known. Bet on getting new certifications such as Global GAP, for new generating markets where the product is better paid for higher financial income.

Bibliography


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