

Covid-19 Occupational Health and Safety Manual on Contagion Risks in the banana companies of Teapa, Tabasco

Manual de Seguridad y Salud Ocupacional en materia de riesgos de contagios del Covid-19, en las empresas bananeras de Teapa, Tabasco

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Abstract

In December 2019 a pandemic called COVID-19 emerged in China, in February 2020 the first suspected case arrived in Mexico by a Mexican person who had traveled to Italy and had mild symptoms, and it was in March that the Mexican government declared emerging pandemic and implementing a series of prevention measures against COVID-19 to control the number of infections and a large number of mortality rate of 0.26 percent of inhabitants in the country. The objective of this study is to identify the possible causes that generate more contagion in the banana industry and achieve a reduction in contagion. When carrying out COVID-19 prevention studies in the Banana Companies of Teapa, Tabasco, we evaluated that many Companies do not comply with the measure of health safety guidelines in the environment of the banana industry. Given that through these collected data, a Safety and Health Manual in the Prevention of COVID-19 is proposed, in the Industrial processes of the Banana Companies due to the large number of COVID-19 infections and thus establish a safe return to the facilities with new prevention measures complying with the provisions of the manual. These results obtained allowed you to design new recommendations in relation to the banana companies evaluated through their workers.

Covid-19, Prevention, Security, Manual

Resumen

En diciembre 2019 surge en china una pandemia llamada COVID-19, en febrero del año 2020 que llega a México el primer caso sospechoso por una persona mexicana que había viajado a Italia y tenía síntomas leves, y es en marzo que el gobierno de México declara pandemia emergente e implementando unas series de medidas de prevención ante el COVID-19 para controlar el número de contagios y un gran número de tasa de mortalidad de 0.26 porciento habitantes en el país. El objetivo de este estudio es identificas las posibles causas queegeneran más contagio en la Industria del banano y logran una reducción de contagios. Al realizar estudios de prevención de COVID-19 en las Empresas Bananeras de Teapa, Tabascoevaluamos que muchas Empresas no cumplen con la medida de lineamientos de seguridad sanitaria en el entorno a la industria bananera. Dado que a través de estos datos recabados sepropone un Manual de Seguridad y Salud en la Prevención de COVID-19, en los procesos Industriales de las Empresas Bananeras debido al gran número de contagios de COVID-19 y así establecer un regreso seguro a las instalaciones con nuevas medidas de prevención cumpliendo con lo establecido en el manual. Estos resultados obtenidos permitieron diseñasnuevas recomendaciones en relación a las empresas bananeras evaluadas mediante sus trabajadores.

Covid-19, Prevención, Manual de Seguridad

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1. Introduction

At present the impact that the world is going through due to the respiratory disease caused by the COVID-19 virus, which has been considered an emerging pandemic in Mexico and all over the world, being a very fast spread among people.

The first epidemic is the plague of Athens in 430 B.C. that occurred during the second year of the oil war, reported by the historian Thucylides, then different epidemics arise throughout the years until you reach a pandemic in 2019 of coronavirus that when infecting people produce cases of pneumonia or severe acute respiratory syndrome, renal failure, and even death, in other people are symptoms of severe cold and in some people appear as asymptomatic infections.

The WHO declares this pandemic as the most rapidly fatal disease, and in Mexico it is declared an emerging pandemic in March 2020 with a high rate of contagion. This disease COVID- 19 has a rapid transmission, which means big problems, since even countries with advanced health systems have been collapsed by the large number of cases. A hypothesis of the fulfillment of the norms of Hygiene and Security in the banana companies of Teapa, Tabasco will be carried out.

In view of these studies, a Health and Safety Manual for the Prevention of COVID-19 is proposed in the industrial processes of the banana companies of Teapa, Tabasco for the reduction of contagions of workers in the banana industry, taking into account the measures proposed in the manual and complying with the established for the reduction of contagions and thus achieve a healthy return with new protective measures. The expected results are considered acceptable due to the measures that will be completed and the trained personnel supervisor to establish these rules of prevention against the spread of COVID-19.

2. Description of the method

This chapter describes the methodology that was developed to meet the objectives of this research. The design of this research is mixed, since both quantitative and qualitative data collection instruments will be used.

Type of research

Correlational research: It will be correlational due to COVID-19 and occupational health to take good COVID-19 prevention measures for all workers operating in banana companies.

Cross-sectional research: It will be cross-sectional because it is necessary to know the safety measures that banana companies have for all their workers and improve the safety measures to avoid risks of spread.

Research design

The sampling will be of statistical type, the surveys will be directed to a number of workers who are every day in areas of industrial processes and to know the safety measures that they execute when some contingency such as COVID-19 occurs today.

The analysis of the survey is of a descriptive statistical type, while for the information collected, the documentary compilation will be used to analyze the statistics of COVID-19's growth.

Study population

The study population will be the workers of the banana companies with a sample of banana companies where they work from different companies in the municipality of Teapa, Tabasco.

Sample size

It will be taken tentatively with a number of samples of 20 workers in some Banana Companies at random to extract the sample of a population for obtaining data to be represented. Data collection techniques

It allows to analyze quantitative and qualitative data in a simple way to understand the context in which the object of study will be developed.

Questionnaires or surveys

A series of surveys will be carried out with workers who work all day in their work areas in the banana companies to collect information on the prevention measures used in the industrial processes of the banana companies.

Documentary compilation

Governmental and non-governmental information will be used to provide updated information on how covid 19 is growing and the new variants it brings with it.

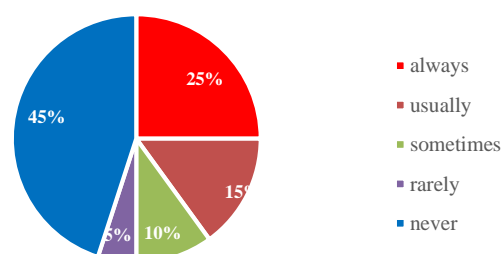
Procedural analysis techniques:

- Global and national COVID-19 review triggered by COVID-19.
- Investigation of COVID-19 in the primary sector.
- Selecting the banana companies where the sampling will be carried out.
- Acceptance of the banana companies to carry out the COVID-19 research.
- Apply questionnaires or surveys to the workers of the banana companies selected for the research, in person or online according to the permissions given by the owners of the banana production companies in Teapa, Tabasco.
- Execute the Covid 19 Prevention Manual in the industrial processes and observe the decrease of contagions that are being carried out, applying the safety measures correctly and to the letter.
- Analysis and interpretation of graphs of results obtained with respect to the information collected before the covid 19.

3. Results

The following are the results obtained and the research hypothesis is tested.

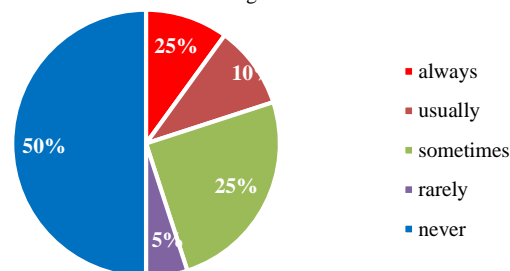
Have COVID-19 prevention measures in place in banana companies.



Graph 1

It is observed that (45%) of the workers have prevention measures against covid-19 in banana companies while (25%) always, 15% almost always, (10%) sometimes and (5%) never.

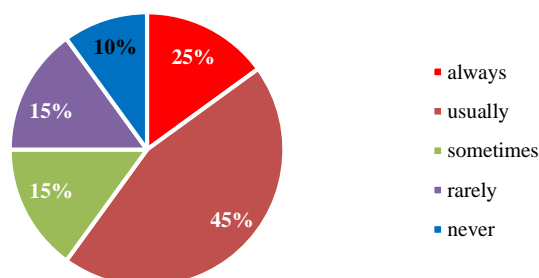
Sanitizer is used when entering work areas.



Graph 2

It is observed that (50%) of the banana companies never use sanitizers while (25%) sometimes, (10%) always or almost always and (5%) almost never.

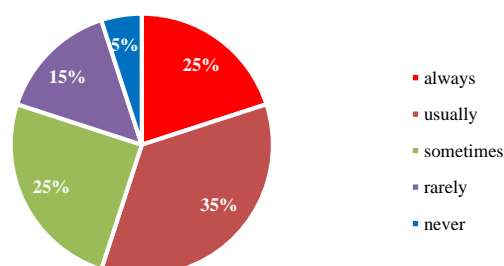
Antibacterial gel is available in banana companies.



Graph 3

It is observed that (45%) almost always have antibacterial gel in the banana companies, while (15%) always, almost always, almost never use while (10%) never use.

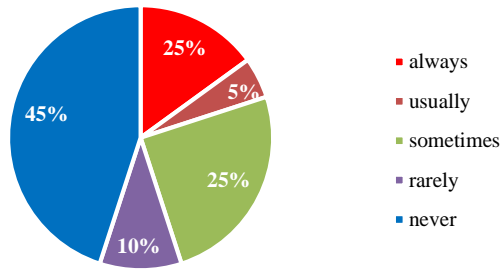
They use mouth masks during the established work activities



Graph 4

(35%) percent almost always, while (25%) sometimes (20%) always, (15%) almost never and (5%) never use face masks.

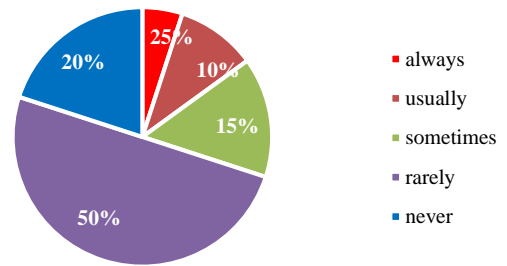
Mouthguards are available for workers.



Graph 5

Some (45%) say that there are never enough mouth covers for workers while (25%) say sometimes, (15%) always, (10%) almost never and 5% say almost always.

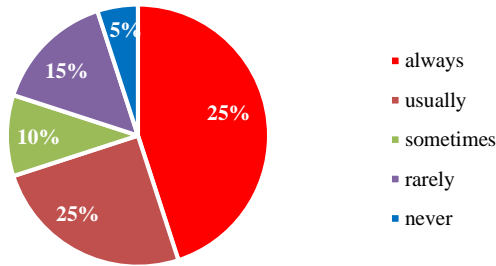
Bananas are sanitized during the final stage of processing



Graph 8

According to the surveys conducted, (50%) almost never sanitize bananas, (20%) never, (15%) sometimes, (10%) almost always and (5%) always sanitize bananas.

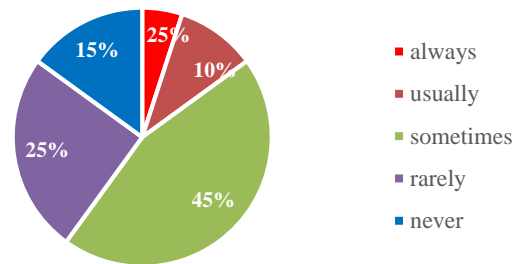
The industrial processing area is always clean.



Graph 6

Some (45%) say that the industrial process area is always clean and (25%) say almost always, (15%) almost never, (10%) sometimes and (5%) say it is never clean.

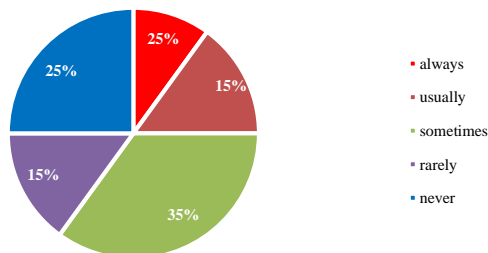
Conduct COVID-19 symptom surveys



Graph 9

Results of the second survey taken from workers of banana companies in Teapa, Tabasco applying the COVID-19 Safety Manual for the Prevention of COVID-19 in the Industrial Processes of Banana Companies.

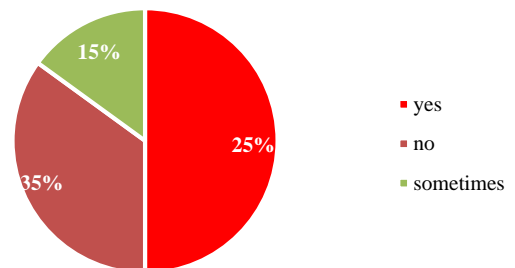
Mouthguards and hand washing are used correctly.



Graph 7

The graph shows that (35%) sometimes use masks and hand washing correctly, while (25%) never, (15%) almost always or almost never and (10%) always use these sanitary measures correctly.

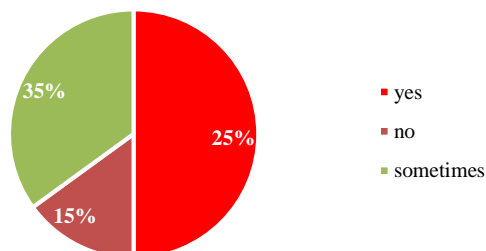
Prevention measures are taken.



Graph 10

According to the results obtained (50%) of the workers take preventive measures against covid 19 while (35%) do not and (15%) sometimes take measures.

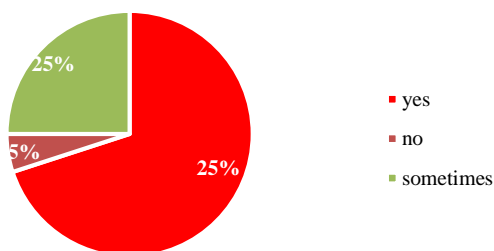
Implementation of the COVID-19 Prevention Manual in the industrial processes of the banana companies



Graph 11

The new implementation of the covid 19 prevention manual results in (50%) taking the proposed measures while (15%) do not and (35%) sometimes.

The Manual is helping to reduce the number of positive cases in banana companies



Graph 12

Considering the surveys the manual is helping a 70% decrease of positive cases within banana companies, while (5%) say no and (25%) say sometimes.

4. Annexes

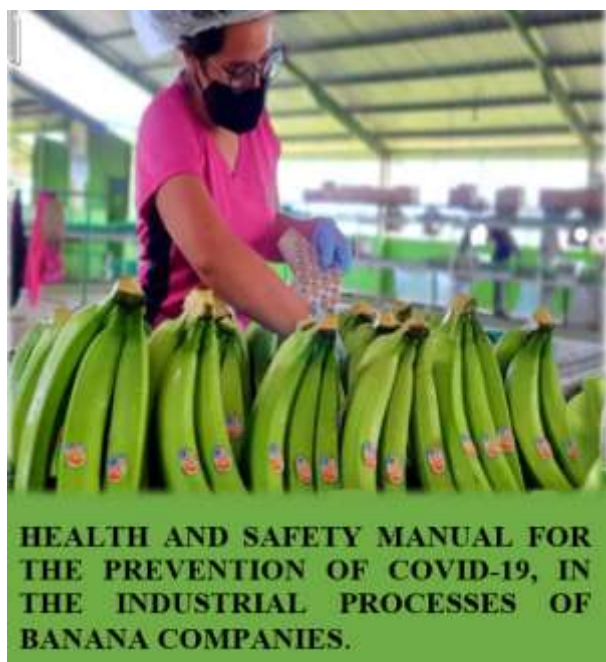


Figure 1 Cover of the Safety and Health Manual for the Prevention of Covid-19 in the Industrial Processes of Banana Companies

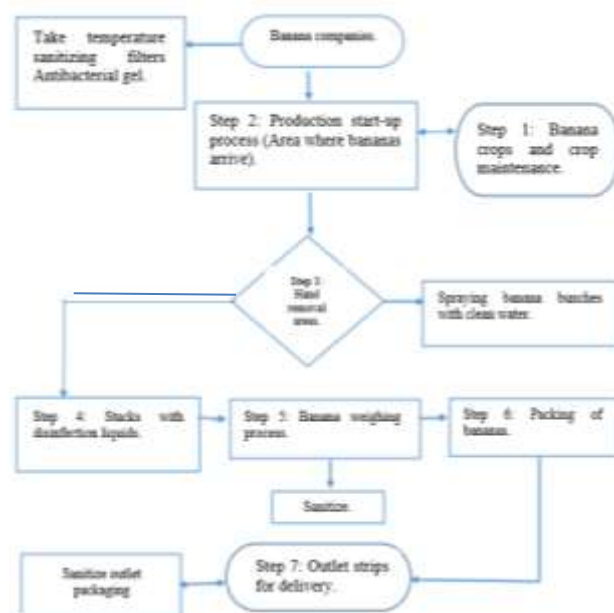


Figure 2 Diagram of banana processes applying the COVID-19 Prevention Manual.

Source: Own elaboration

Instructions: Mark with an X	A	AA	S	AN	N
1. Do you have COVID-19 prevention measures in the banana companies where you work?					
2. Use sanitizers when entering the work areas.					
3. Have antibacterial gel in the banana companies where you work.					
4. They use masks during the established work.					
5. There are sufficient masks for the workers.					
6. The industrial process area is always clean.					
7. Mouthguards and hand washing are used correctly.					
8. The bananas are sanitized during the final stage of the process.					
9.- They carry out surveys of COVID-19 symptoms.					

Table 1 Collection of information, respondents: 20

Source: Own Elaboration

Instructions: Mark with an X	Yes	No	Sometimes
They always take preventive measures			
The personnel in charge of the different areas promote this new implementation of the health and safety manual on COVID-19 prevention.			
This COVID-19 prevention manual is of great help in the reduction of positive cases in banana companies.			

Table 2 Collection of information, second survey applying the Manual, persons surveyed: 20

Source: Own Elaboration

5. Acknowledgements

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6. Conclusions

The total knowledge of the COVID-19 prevention measures in the Banana Companies is very important for all the personnel who are there and their correct use of measures to avoid high contagions.

Currently, the hypothesis is acceptable because a 10% reduction of contagions was achieved through the Health and Safety Manual, in the Prevention of COVID-19 in the Industrial Processes of the Banana Companies according to the second survey taken from the workers of the Banana Companies.

In some cases the workers do not carry out the measures of prevention against COVID-19 because they do not like the use of masks, antibacterial gel, their healthy distance between other people, correct use of hand washing.

Finally, it is concluded that in order to achieve more efficiency in the reduction of COVID-19 infections, the personnel and the people in charge of checking the areas should apply the daily prevention strategy before and during working time.

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