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“La Barca”, Jalisco; a place where corn is a must

Mexico is one of the top producers of corn in the world, and Jalisco, one of its 32 Federal Entities, is the 2nd greatest producer. Jalisco is located in the Western part of the country. The state borders with various other federal states, such as: Nayarit, Zacatecas, Aguascalientes, Guanajuato, Colima, Michoacán, and it has a coastline on the Pacific Ocean. It is the 4th most populated state in the Mexican Republic, and one of the most advanced states regarding economic, commercial, and cultural activities. Located in the Ciénega near the Chapala Lake, La Barca has fertile soils which are used to grow corn.

La Barca's weather is semi-warm with mild temperatures running from 53.6⁰F to 84.2⁰F. It rains during the summer, with winds flowing westerly. Its flora and fauna belong to semiarid and semi-warm weathers. Situated in Eastern Jalisco, this sixty-thousand inhabitant municipality has various forms of earning money. Besides agriculture, other important sources of wealth are fisheries, livestock, mining, and commerce. Most of the fisherman work for their own consumption. Other people raise cattle, pigs, birds, and sheep. Regarding mining, minerals and stone are extracted from quarries. Last but not least, corn, agave, and wheat are also grown by farmers. Although “La Barca” itself produces 7.41% of the corn of Jalisco, these 188,549 thousand tons per year, representing about 1.2% of the corn produced in Mexico, could become more and help boost the economy of the region. Unfortunately most of the people that plant corn, just do it because they don't know what else to do, and they do not plant it effectively. They do it in a cheap manner, not safe for the environment or even for the corn itself, and many of them never consider alternatives. To sustain this, we have a simple statistic of why people plant corn in “La Barca”.

Table 1, reason to plant corn (1)

Reason the farmers have to plant corn	%
No other option	41.67
Don't know other	8.33
Cheapest	20.83
For own consumption	20.83
For animal consumption	4.17
Tradition	4.17

The Mexican tortilla and Corn

Corn is a must in the Mexican diet. We eat it in tortillas, pozole, esquites, atole, tacos, corn with butter and corn soup. We like it toasted, boiled, or cooked in the oven. But it isn't how we eat it, but how much of it we eat, and because we eat it so much, producers need to have bigger and better qualities of corn. It was through this continuous improvement in the quality of corn, that the corn as we know it today is the product of hundreds of centuries of hard work, investigation and mistakes of Mesoamericans, the pre-Columbian inhabitants of Central and Southern Mexico and Central America. They found the plant and began to domesticate it by mixing it with others. This gave birth to hundreds of new plants and subspecies that tasted better and could also grow faster, bigger and in different climates. Currently, corn has the capacity to adapt to different climates and altitudes, maintaining its great taste and colors. This crop has multiple advantages such as low fat calories (only 123, 4g of proteins, 3g of fiber, and 2.5g of polyunsaturated fat), the fact that it can warm the body when eaten, cure colds and take off some bruises

and it is used also to lose weight. Contrary to the common myth that it makes you fat, you will be surprised to find out that 3 tortillas have the same number of calories as an apple.

Corn is also the third most eaten plant in the world, just after rice and wheat. Nowadays, over 20 subspecies of corn are grown all around the globe. Throughout the years corn has evolved, and has survived its never-ending plagues. Some of these plagues like worms are *Spodoptera frugiperda*, which eats the inner part of the plant, and *Diabrotica virgiferaeae*, which eats the main core of the plant leaving it without strength to keep standing, so it falls and dies. Also worth mentioning some species of birds, such as sparrows and ravens, which sometimes act like a plague. (2)

The production of corn has been increasing during the last 10 years (3), giving producers growing profits. The reason behind this is not only more people eating more of it, but also because we are starting to use it as a biofuel, giving corn an added value and an extra price. Rising prices often translate into speculation with regards to the price of corn, and tons of it is withheld, waiting for the best marketing opportunities. Unfair trade and monopolies arise in certain places. The biggest concern for stockbreeders is not corn, but to find another plant that gives the exact same nutrients to their animals. About 70% of corn worldwide production is used for livestock. Mexico is an exception where almost 70% is used for human consumption, and the Mexican tradition of eating tortillas is spreading. Tortillas are currently produced in the United Kingdom, the Netherlands, Russia, Italy, Ukraine, and in a lot of different states in the U.S.A. But not every sort of maize is used for tortillas. When yellow corn is mentioned, we have to admit that it is one of Mexico's weaknesses, as 80% of Mexico's consumption of yellow corn comes from USA and only the 20% from national farms. So adding to the price increase, the popularity of the Mexican tortilla and the variety of uses and types of corn, there is also a bigger need for food not necessarily to sustain oneself, but to fill up a bigger stomach with greater and different flavors, this meaning the Mexican market.

What to do for a fair and better price for Corn?

The commerce of corn is a worldwide millionaire industry. It all begins as every other product, first the farmers sell it to big industries: national or international; these are intermediates in the process of commercializing the product in bigger quantities and sometimes also as the last part of the process, producing the finished product and selling it. Big industries buy the initial product from small communities in the country, most of which are poor and accept whatever they pay them because of their ignorance and their necessity. They often have very low levels of education and since they have never left their communities, they speak native languages and their math skills are deficient, to say the least; the lack of ethics surrounding these circumstances hampers fair trade. An innovative approach has been tried with moderate success in some Mexican cities: a growing number of farmers sell their product directly in the cities' corners or markets. Since they offer their products directly to the consumer, the producers earn more money while the consumer saves. Unfortunately, only a limited number of farmers have the means to carry their products into the city, and even those ones who manage to come to the city must face the retailers, and their very competitive industry which has already won the trust of the buyer through years of marketing, standardization, and familiarity of the consumer with their product.

There is also a great problem when dealing with the knowledge of planting; since some of the farmers just plant corn and don't know if corn is what they must plant in order to get the best of their land. Their lack of knowledge causes problems with nature. They cut trees to plant without knowing the properties of the ground. All this can be added to the different opportunities given to those who have more and advanced technology; this makes their prices go higher, as shown in the following table.

Table 2, production of corn (4)

	Production in tons per acre	Cost of production per acre*	Price of sell*	Profit per ton*	Profit per acre*
a	12 or more	82	350	267	3,220
b	7 to 12	114	326	212	1,480
C	4 to 7	142	244	102	407
d	less than 4	162	204	41	82

* Prices in dollars

Not all about the odds the little farmers are facing has been said. We shouldn't forget that there are new industries arriving from other countries with greater infrastructure, technology, and financial funding and they buy every available piece of land transforming it into a big production center. Once they saturate the markets, the profits for the competition drop, and only a technological development can reduce the investment needed to produce. Since most farmers lack the scientific research about the lands and the products best suited to them, erosion increases and some little farmers are forced to work for the big company. This might not seem as a negative situation because they can have a job that gives them money. But this is not the only thing that they should worry about. Another problem is that companies begin to gain farmers normal buyers, and farmers start to have excess of their product and no buyers. This uneven competition leaves the farmers without incomes, since it forces them to sell their products cheaper, leave them to rot or eat the whole thing; not enabling them to buy different things than the ones they produce, and forcing them to sell their lands in order to get their basic needs fulfilled, things they don't produce.

Where do we go from here?

My proposal would be to teach every community the real price of corn and the use of some technology. As always education is a must. But, education has to be earned, and this means that they must give something in return. They will pay for the technology given, but it would be in a way they can afford it, paying small quantities monthly; taking care of their production funds in order for them to gain economic stability, and allowing them to get on their feet and becoming independent. This is that they could earn more money and improve their profits and their lifestyle giving their children an opportunity of learning for a better tomorrow. Other solution could be to put a fine to everyone that tries to take advantage of the communities that are poor, and this money can be used to support the communities until they can sustain themselves.

We can no longer refuse the entrance of international industries, but we can regulate them. We may need to reduce them, and this will reduce country income from taxes imposed to multinational companies. Another proposal, it is that the international enterprise could be community based, this means that all the community pays for the industry in their community and take care of it and share the earnings. Also, there is a great need for international industries which construct tractors and harvesters, invest in Mexican research of seeding, watering, etc. Mexicans are very creative and it is time to create something better for the world, after all Mexico is not only *tortilla*.

Another solution could be transgenic seeds; these seeds are the product of years of research in order to be the perfect seeds, even though this hasn't been accomplished yet, it's really close to be done, in Mexico the use of these seeds is neither forbidden or accepted unanimously which means anyone who wants to use them can, and there is no legal reason why to be stopped from doing so. In Mexico the use of these

kinds of seeds is having a great impact in the fields of the country. A transgenic is a seed that has been manipulated genetically in order to obtain the best results of production, cost, resistance to pesticides and plagues, and reproduction. This kind of seed is the best option for the farmers given that it has been specifically designed to be cheap, but to produce big profits, and to be ready in less time, which means that can plant more times producing more and having bigger earnings. And they wouldn't have over production because Mexico is in need of corn, because most of its consumption is imported from USA.

Conclusions

Fair trade is convenient system, cause through this we can improve various aspects, such as quality of products, society and commerce. Quality of the products is improved trough equal opportunities, this equality refers to having the same chances of expanding in the market and price, but this shall depend on each farmer and how hard he works. Today, the societies that produce corn most of the times have very different social categories, this difference is the product of many years of indifference towards farmers, but it would be reduced by the help being provided, after some time we'll be able to see a real improvement in societies, there should be no people living in miserable conditions, maybe in poor, but not dying because lack of resources. The social barrier would be broken and everybody will have opportunities, it would now depend of the character of each worker. And last but not less important, fair trade can give the country a background of justice in the matter of business, investors would be attracted to a country in which justice is being carried out even in the field. This is not only about a product is also about a picture we give to those who surround us.

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