

## MEXICO: OLAM INNOVATION

### Process: Extended Fermentation with Starter Culture



## THE CUP

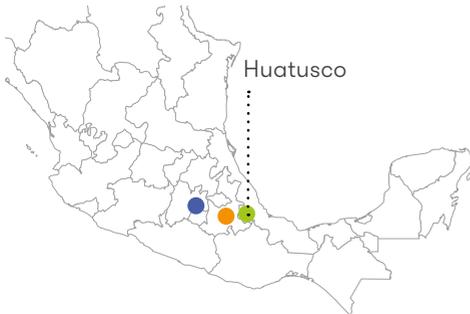
SCA Score

86

Flavour



Red fruits, maraschino  
cherry, chocolate



● Mexico City  
● Puebla

**Producer name:** 7 famers from the Sampieri family and Zilli family farms

**Farm Size:** 200 ha (Avg)

**Region:** Huatusco, Veracruz, México

**Process:** Washed

**Altitude:** 1,308 MASL

**Varieties:** Costa Rica, Marsellesa & Colombia

**Harvest Season:** November - April

**Certification:** Rainforest Alliance, AtSource & C.A.F.E. Practices



## The Producer

The climate of the region around the town of Huatusco de Chicuellar is perfect for growing coffee, but peculiar in that it rains often and is cold at night. This can make fermenting and drying coffee complicated, which is why farmers tend to sell coffee in cherry.

For Gerardo Sampieri and his brother, who have always been coffee farmers, the rugged mountain region around Huatusco is home. Bernardo Zilli and his coffee farm, Tlacotla, have earned a reputation for growing & nurturing excellent coffee. They recently certified their farms Rain Forest Alliance and are very proud of the high certification score.

## The Art of Innovation

The transformation of coffee cherry to a green coffee bean is a complex biotechnological process. The process involves fermentation where microorganisms (yeast, bacteria and fungi) use the mucilage in the coffee cherry digest the carbohydrates and produce complex metabolites. These metabolites when roasted provide the wonderful coffee aroma and the taste to the cup of coffee.

In this very special lot we took fresh coffee cherry from the Zilli and Sampieri families, pulped them carefully, and added a starter culture to the fermentation tank. We allowed the fermentation to extend about two to three times the normal fermentation while monitoring the pH and other indicators. Finally we washed the coffee and dried it.

The secret behind our starter culture is that it changes the microbiological makeup of the fermentation to both encourage good flavor

and discourage the negative flavor elements. Hence when evaluating our coffee we found that the extended submerged fermentation using a starter culture generated favorable volatiles such as alcohols, esters which enhanced the fruity and sweetness attributes and reduced unfavorable volatiles such as pyridine, pyrazines and guaiacol resulting in significant improvements to aroma.

A few of the exciting takeaways from this experience. The coffee through this extended fermentation process increased the cup score almost 3 points on the SCA scale. We also measured the aroma fingerprint of these coffees and they were significantly different from the normal coffee processed in the cherry mill. For this lot the cup profile can sometimes taste like a coffee from East Africa.

## The Region

Huatusco is located in the central highlands of Veracruz where breathtaking mountain views are the norm. When coffee first came to Mexico from the Caribbean, it was planted in Veracruz. The combination of cool, high altitudes and a verdant subtropical climate are ideal for growing coffee.

Coffee production is among the most important activities in the region, with a long history that includes a festival at the conclusion of harvest known as La Viuda Del Café, "Coffee's Widow," named for the loneliness of the coffee plants following harvest. It is said that the coffee plants are in mourning until "courted" again during the next harvest. The celebrants wear crowns made from the leaves of coffee plants and prepare traditional foods. Tradition holds that the festival must take place to ensure a good harvest the following year.