



About Huatusco

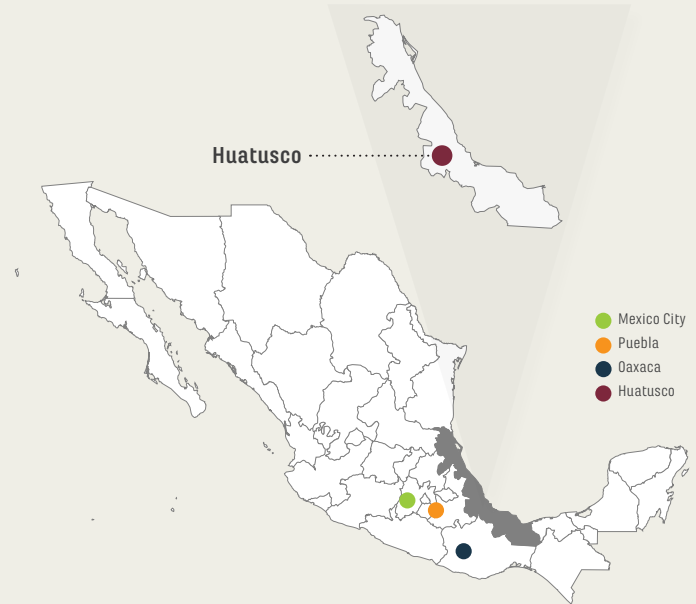
The mountainous region of Veracruz, Mexico is one of the large coffee producing areas in Mexico. In the volcanic soil and high-altitude regions of Huatusco and Xalapa we typically find altitudes of 1000 – 1500 MASL. The region is known to be a spring season all year long, which makes it perfect for growing coffee. What is perfect for growing isn't always perfect for processing. The constant rainfall makes sun drying impossible. Most of the coffee produced in this region is using washed process and mechanical drying.

Given the excellent terroir, high altitude farms, consistent cherry processing & mechanical drying at controlled conditions, it was an ideal combination for experimentation with innovative processing conditions. Olam Innovation Team embarked on an experiment to test the effect of extended fermentation using indigenous micro-organisms as well as the effect of extended fermentation using a starter culture.



MEXICO

HUATUSCO EXTENDED FERMENTATION & EXTENDED FERMENTATION WITH STARTER CULTURE.



Methods

Coffees were processed by experimental conditions using extended fermentation and extended fermentation using specific starter cultures in submerged conditions. A control fermentation was run alongside using the traditional washed method with 12-15 hours in dry conditions.

All coffees were washed and then dried using mechanical dryers and then hulled using standard methods. The coffees were rested for around 60 days then the coffees were cupped blind by 14 Q graders within Olam. With the same coffees we ran aroma fingerprinting of volatile organic compounds using chromatographic techniques.

The scientific techniques used allow us to confirm the cup descriptions with the level of the aroma volatiles that are present in each of the coffees.

Results

SCA Cup Scores + 3pts
More Fruity & Sweet Aroma

Sweet
Ethanol ↑↑

Fruity
Ethyl Acetate ↑↑

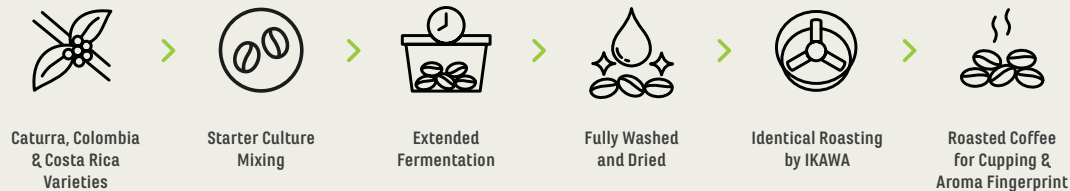
Increasing the levels of Sweetness and Fruitiness directly leads to increase in cup score

Roasted
Methyl Pyrazine ↓↓

Smokey
Guaiacol ↓↓

Fishy
Pyridine ↓↓

While all coffees have these elements, decreasing the concentration of these aroma volatiles increases cup score.



Science Behind the Results

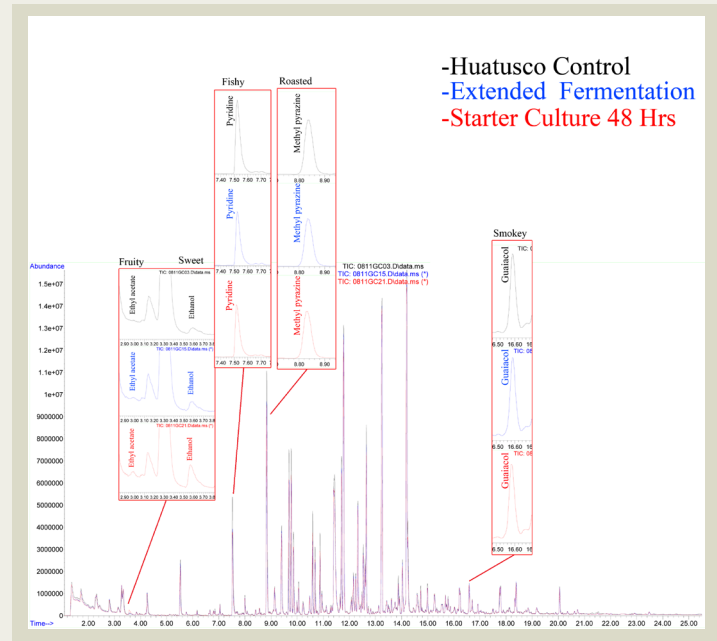
Coffee from Huatusco area in Mexico is known for caramel, chocolate and roasted aroma through abundance of pyrazines, dry finish was a given. Extended submerged fermentation using starter culture generated favorable metabolites such as ethyl acetate (**fruity**) & ethanol (**sweet**) leading to fruity & sweet aroma at the same time, reducing unfavorable volatiles such as pyridine (**fishy**), methyl pyrazine (**roasted**), guaiacol (**smokey**). The dry finish was changed to "juicy" finish in the treated coffee. The combination resulting in higher cupping scores. We believe that extended fermentation under submerged conditions & use of starter cultures have a significant improvement in coffee aroma from the Huatusco area in Mexico and we are now scaling up this processing method during the next season.

Want to try these coffees?

On the Olam Specialty Coffee website under Mexico please find:

P606208-6 Olam Innovation with Starter Culture and Extended Fermentation

P606208-7 Olam Innovation only with Extended Fermentation





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