

# Navigating Origins

## FLORES {INDONESIA} | BY ADAM KLINE

FRANKLY SPEAKING, when compared to its Indonesia brethren, the island of Flores receives a sliver of the attention given to its more favored coffee-producing siblings, Sumatra, Java and Sulawesi. As exotic and mysterious as these origins remain, let's not forget about the others at the table. With forks and knives raised and pounding, the "others" are more than *just* worthy of our focus.

Among these others is Flores, a relatively new origin to the specialty coffee scene. Thus, it needs some direction in order to overcome the obstacles and limitations before being known to the world as a specialty coffee. Some of these are happening, while others (most notably a reliable infrastructure and an adequately financed supply chain driven by quality) may take more time.

Flores is one of the Lesser Sunda Islands in the province of East Nusa Tenggara Timur, Indonesia. Roughly the size of Connecticut, the island was given its name, "Cabo de Flores," by Portuguese explorers in the early sixteenth century.

### A VERY BRIEF HISTORY OF COFFEE IN FLORES

Coffee was planted in Flores some 150 years ago. There are conflicting reports as to where the original cultivars came from. Being Indonesia, the Dutch surely had something to do with it. Some say coffee in Flores arrived via Sulawesi and others claim it was introduced from Timor. Both of these theories are plausible, as Flores is located between the two islands. Over the course of 150 years, additional cultivars were introduced through various channels.

Today, according to reports published by the Australian Center for International Agricultural Research (ACIAR), total coffee production in Flores is estimated at 6,500 metric tones and is passively grown by 75,000 families. Of total production, 2,500–3,000 metric tones are Arabica and approximately 150–200 metric tons are sold as Flores Coffee, with 90 percent of the coffee coming from the isolated areas of Manggarai and Ngada, the western-most regencies (local

government districts) on the island. The town of Ruteng in Manggarai is central to coffee trading in Flores. The coffee harvest runs from May to September.

### CULTIVARS

In 1986, the Indonesia Coffee and Cocoa Research Institute (ICCRI) began a coffee development program in Flores. Aside from the coffee seeds that were planted during this time, little is known about the coffee trees on the island. The main cultivars grown are Caturra, Catuai and Linie S795. Tucked away between these more commonly known cultivars are naturally occurring hybrids whose history can only be hypothesized. Juria is one such "mystery" hybrid and is thought to be unique to Flores.

Yellow cherries are always a spectacle no matter where you are, and it is indeed rare to see yellow-fruit-bearing coffee trees in Indonesia. As a matter of fact, it's more or less unheard of. Not so in Flores. It is believed that the trees are local hybrids of either Catuai or Caturra, referred to locally as "Colombia Variety."

Locals in the Ranamese Valley of the Colol lake region say the Japanese brought the cultivar from Toraja, Sulawesi. "There are a couple of varieties that we don't know and this is always the fun thing," says Tony Marsh, an independent coffee consultant. "The Caturra Yellow is not something that was introduced by the Indonesians. We think it was introduced by Catholic Missionaries with their linkages in Latin America."

Linie is Dutch for "Line," and "S" is an abbreviation for "Selection." Linie S795 was one of the more successful lines developed from the original seed stock that was brought by the Dutch from Ethiopia and then India. "The Dutch Research Center introduced several S-lines from India during the 1950s," says Surip Mwardi, a lead researcher at the Indonesia Coffee and Cocoa Research Institute. "After having a trial and improvement selection process, S795 was recommended by the Indonesian government for large-scale planting."

Linie S795 has adapted well to the growing conditions in Flores

although some farmers remained displeased with it due to small bean size and lower yields relative to other cultivars on the island.

### PROCESSING

Processing is an enormous factor in coffee quality, and looking for a suitable processing methodology is a key focus when developing an origin. Available resources often dictate which methods to adopt, and conditions are very dry in Flores during harvest season. Add to this steep terrain, well-drained soils, and a lack of natural springs or surface water, and you may think that the obstacles to sourcing quality coffee from Flores are too great. But coffee still grows on the island, and these *terrior* traits are what specialty coffee is all about. Nevertheless, the developmental perception of "market demand" is and has been guiding efforts in Flores.

Wet hulling (aka "Gishling Basha" in the Indonesian language) is unique to Indonesia, and Heni Sarawati, head of CV Lion Lestari and the current president of The Specialty Coffee Association of Indonesia, is a chief proponent of applying the technique to Flores. (Wet hulled is often called semi-washed in Indonesia, though the terms are not truly interchangeable). "There is market demand for coffee that has more body and sweetness," she says. "This is why we started with wet hulling coffee in Flores. You get the body and sweetness, and the process is generally less wild in the cup than full naturals... though it is perhaps more difficult to control."

Through the wet-hulled process in Flores, coffee is harvested and pulped by hand, or in one case, by stationary bicycle converted into a pedal-powered pulper! This is generally done at the farm gate and hopefully within 24 hours after picking otherwise fermentation is a risk. The pulper separates the beans from the pulp of the cherry, leaving the mucilage attached to the wet parchment underneath. The coffee, sometimes rinsed, is patio-dried until it reaches moisture levels of 35–40 percent. Poor milling can increase risk of mold as chipped beans are

weaker in structural integrity.

In recent years, smallholder cooperatives have begun wet processing under the guidance of Mwardi and the ICCRI. The ICCRI plays the role of mediator, while empowering farmer groups via business training, improving quality by transferring of appropriate technologies, and mediating on price negotiation.

According to Mwardi, the water used for wet processing in Bajawa comes from a natural spring. Water arrives at small wet mills either through polypropylene pipe or by tank truck.

Concerns should be raised over wet processing Flores coffee. Over the long term, because water is scarce, wet processing may actually limit the ability to increase production, exacerbate water shortages, and increase production costs. Since there was little to no market demand for Flores Arabica coffee prior to 2004, perceived "demand" for wet-processed Flores coffee appears to be slightly misguided at this point. There are alternatives, if only a few, but for this emerging origin, the way forward should be both sustainable and replicable.

When asked about the main obstacles to achieving a reliable and quality based supply chain in Flores, Mwardi noted the need for a greater appreciation of quality at the farm level as well as a deeper understanding of general business practices. "Farmer organizations need time and effort to empower themselves and this is being facilitated through the program as well as through local governmental agencies," he adds.

Another concern is local market competition and its effect on the quality commitment from producers. While competition for cherry or *asalan* (a term that generally refers to rudimentarily processed and unsorted green beans) drives up the price, Surip fears that this will make farmers less motivated to produce quality coffee for the specialty market.

### DEVELOPMENTS

The dynamics of working with coffee in Indonesia are some of the most complicated. Growers are typically unaware of current market conditions and the traditional supply chain serves as their only link to market. This is raw coffee country where beans are truly viewed as a commercial commodity with little to no regard for quality. Aside from the efforts of companies like Lion Lestari and organizations like ICCRI, there is virtually no standardization in the processing of Flores coffee. And of the approximately 150 containers of Arabica coffee produced in Flores, only 10 are sold as Flores Coffee.



The rest is purchased by local traders who sell and blend the beans in the commercial ports of Surabaya in Java and Makassar in Sulawesi. Once there, it is blended with other Indonesian coffees and sold into commercial markets.

One key to restructuring the supply chain in Flores is in the ability to finance growers. Options for crop prefinancing in Flores are limited, although the Indonesian government recently approved for farmers a soft loan with two percent interest to be paid back after the following year's harvest. Financial limitations have traditionally forced growers to sell their coffee before harvest for prices well below market. This is one link in the chain that shackles Flores to a cycle of poverty and limits its ability to produce specialty coffee. It is a difficult thing to interject notions of quality in an environment that has been operating with a commercial mindset for so long. Nonetheless, strides are being made to do just that.

For the coffee farmer in Flores, there isn't much room to experiment unless immediate benefits can be realized. Take the organization that arrived in Flores in the late '80s with the intention of helping boost coffee production in the Valley. It was obvious (as it is today) that the trees were lacking in basic husbandry and producing a small percentage of their potential. The organization, well informed of the benefits of "stumping" productive coffee bushes, suggested that this would lead to increased production in years to come. Plots were "stumped" and everyone waited and waited. As it turned out, the trees were some 20–25 years old and lacked the resilience to send up new branch shoots.

This type of "one size fits all" approach is the antithesis to the efforts being put forth by the Australian Centre for International Agricultural Research (ACIAR), as led by Marsh and University of Sydney researcher Jeff Neilson. "Our hope is to develop Flores into a high quality coffee origin and the key to that is to get people in the local industry to appreciate the nuances in specialty coffee. What does "quality" mean, what are the factors that are important, and what is it that buyers want to see?" says Marsh.

There are two components to the ACIAR project in Flores. Neilson is focusing on the dynamic of coffee farmers on the island and the socioeconomic reality producing communities face on a day-to-day basis. "You wouldn't expect farmers to allocate all of their resources to coffee cultivation, so that may well be a major limiting factor for them to invest in any sort of rudimentary quality improvement at farm level or even increase in their production," he says. "So we are trying to understand the whole farm system and where coffee production fits into that."

While Nielson focuses on socioeconomic forces, Marsh is developing a trial program to match processing techniques with cultivar



selection on the island. "One of the questions that we hope to answer in this project is what is the best way to process Flores coffee to make coffee that is uniquely Flores and that is actually appropriate for the resources? One of the key resources is water. It's very hard to introduce a processing system if there's not enough water to process the coffee."

He adds, "There are two different flavor profiles coming from Flores. One of the issues of a new origin is being able to define what "Flores coffee" is. People in the market are now comparing the two types of coffee, and there is some confusion already."

For his research, Marsh will be using a range of coffee varieties from a number of locations within the main growing regions of Flores. When asked what the biggest factor affecting coffee quality was in Flores, Marsh noted, "Coffee on the tree is brilliant; soil fertility, the altitude, the climate are all wonderful; the varieties are good varieties; it's all down to processing at farmer level."

Many obstacles remain, but progress toward specialty coffee production is being made in Flores. This potential energy is slowly becoming kinetic, and each effort will be of great benefit for this shadowed but emerging specialty coffee origin.

