



# Specialty coffee

Specialty coffee is one of the most popular commodities exported worldwide. The global specialty coffee industry was valued at USD 35.9 billion in 2018 and is expected to grow to USD 83.5 billion by 2025. With its increasing popularity, consumers as well as large-scale buyers are paying due attention to the quality of coffee that are purchased. Attention to factors influencing intrinsic coffee quality, such as the genetic diversity of specialty coffee produced, would be a greater requirement for countries like Sri Lanka, looking to meet consumer demand through export.

For over 150 years, Sri Lanka has been largely disconnected from the global coffee market. Information about coffee genotypes grown in Sri Lanka have been a missing link in connecting Sri Lankan specialty coffee growers to the world. Recently, MDF took the initiative to connect with, World Coffee Research (WCR) - an organization that focuses on varieties and knowledge of coffee plants, to improve coffee quality, productivity, climate resilience, profits for businesses and farmer livelihoods.

WCR's global genetic database of coffee varieties helps agronomists, growers and buyers identify:



The most favorable coffee varieties for a given region



The ancestral home of a given coffee variety



Varieties that can withstand pests and diseases



Climate resilient coffee varieties; while also creating recognition for genetic origins of coffee



MDF collected samples from across Sri Lanka, through the Lanka Coffee Association (LCA) and sent them to WCR for a "Varietal Analysis". The Varietal Analysis explains parent varieties of Arabica coffee samples. The following document details the findings of the Varietal Analysis as shared by WCR.

MDF plans to connect further with WCR and Sri Lanka Department of Export Agriculture (DOEA) to investigate the uniqueness of Sri Lankan coffee varieties and over time bring coffee varieties to the country to elevate the growth of the Sri Lankan specialty coffee sector.

# Fronton

Early production and high yielding plant resistant to coffee leaf rust. Well-adapted to low and medium altitudes. Found primarily in Puerto Rico.

## Appearance

Stature

Dwarf/Compact



Leaf tip color

Green/  
Bronze



Bean Size

Below  
average



## Agronomics

Optimal altitude

5°N to 5°S

1000 – 1600m

5–15°N and 5–15°S

700 – 1300m

>15°N and >15°S

400 – 1000m

Quality potential  
at high altitude

Very good



Yield potential

High



Coffee leaf rust

Resistant



Coffee berry  
disease (CBD)

Unknown



Nematodes

Unknown



# Fronton

## Performance

Year of first production	Year Two
Nutrition requirement	High
Ripening of fruit	Average
Cherry-to-green-bean outturn	High
Planting density	3000-4000 (using single stem pruning)
Additional agronomic information	Variety not homogeneous; presents a non-specified amount of segregation in the field. Susceptible to coffee leaf miner.

## Genetics

Lineage	Timor Hybrid x Caturra
Genetic description	Introgressed (Catimor)
History	A cross between Timor Hybrid and Caturra introduced to Puerto Rico from the Instituto Agronomico de Campinas (IAC) in Brazil. Selection made by the Estación Experimental Agrícola en Adjuntas in Puerto Rico.

# RAB c15

High yielding tall variety resistant to rust and coffee berry disease recently released in Rwanda.

## Appearance

Stature  
Tall



Leaf tip color  
Green/  
Bronze



Bean Size  
Below  
average



## Agronomics

Optimal altitude

5°N to 5°S  
> 1200m  
5–15°N and 5–15°S  
> 900m  
>15°N and >15°S  
> 700m

Coffee leaf rust

Resistant



Quality potential  
at high altitude  
Very good



Coffee berry  
disease (CBD)

Resistant



Yield potential

Very high



Nematodes

Unknown



# RAB c15

## Performance

Year of first production	Year Two
Nutrition requirement	High
Ripening of fruit	Unknown
Cherry-to-green-bean outturn	Average
Planting density	2000-3000 (using multiple stem pruning)
Additional agronomic information	Vigorous

## Genetics

Lineage	A selection of the Indian variety Sln.6 (Kent x C. robusta). A population composite variety
Genetic description	Introgressed (Catimor)
History	RAB C15 was released by the Rwandan Agricultural Board in 2015. It a selection of Sln.6, a population created by Indian coffee breeders at Central Coffee Research Institute (CCRI) and distributed to Indian farmers in the 1970s, and which was shared with four African countries (Rwanda, Kenya, Zimbabwe and Uganda) in 2010.

# Villa Sarchi

Well-adapted to highest altitude conditions and tolerant of strong winds.

## Appearance

Stature  
Dwarf/Compact



Leaf tip color  
Green



Bean Size  
Below  
average



## Agronomics

Optimal altitude

5°N to 5°S  
> 1600m  
5–15°N and 5–15°S  
> 1300m  
>15°N and >15°S  
> 1000m

Coffee leaf rust

Susceptible



Quality potential  
at high altitude

Good



Coffee berry  
disease (CBD)

Susceptible



Yield potential

Good



Nematodes

Susceptible



# Villa Sarchi

## Performance

Year of first production	Year Three
Nutrition requirement	High
Ripening of fruit	Average
Cherry-to-green-bean outturn	Average
Planting density	5000-6000 (using single stem pruning)
Additional agronomic information	Vigorous

## Genetics

Lineage	Timor Hybrid x Caturra
Genetic description	Introgressed (Catimor)

**History** Villa Sarchi is perhaps most well known as one of the namesakes of the "Sarchimor" group of coffees. In the 1970s, coffee breeders and growers in Latin America, as well as the global coffee industry that depended on coffee from the region, were extremely concerned about the recent arrival of coffee leaf rust in Latin America.

# Marcellesa

High yielding plant adapted to medium altitudes. Notably high acidity in the cup.

## Appearance

Stature  
Dwarf/Compact



Leaf tip color  
Green



Bean Size  
Average



## Agronomics

Optimal altitude

5°N to 5°S  
> 1000 - 1600m  
5-15°N and 5-15°S  
> 700 - 1300m  
>15°N and >15°S  
> 400 - 1000m

Coffee leaf rust

Resistant



Quality potential  
at high altitude  
Good



Coffee berry  
disease (CBD)

Tolerant



Yield potential

High



Nematodes

Susceptible





# Marcellesa



## Performance

Year of first production	Year Three
Nutrition requirement	High
Ripening of fruit	Average
Cherry-to-green-bean outturn	High
Planting density	5000-6000/ha (using single stem pruning)
Additional agronomic information	-

## Genetics

Lineage	Timor Hybrid 832/2 x Villa Sarchi CIFIC 971/10
Genetic description	Introgressed (Sachimor)
History	A cross between Timor Hybrid 832/2 and Villa Sarchi CIFIC 971/10. Pedigree selection made by ECOM-CIRAD in Nicaragua specifically for its rust resistance traits

# Bourbon

One of the most culturally and genetically important *C. arabica* varieties in the world, known for excellent quality in the cup at the highest altitudes.

## Appearance

Stature  
Tall



Leaf tip color  
Green



Bean Size  
Average



## Agronomics

Optimal altitude

5°N to 5°S  
> 1600m  
5–15°N and 5–15°S  
> 1300m  
>15°N and >15°S  
> 1000m

Coffee leaf rust

Susceptible



Quality potential  
at high altitude  
Very good



Coffee berry  
disease (CBD)

Susceptible



Yield potential

Medium



Nematodes

Susceptible



# Bourbon

## Performance

Year of first production	Year Four
Nutrition requirement	Medium
Ripening of fruit	Early
Cherry-to-green-bean outturn	Average
Planting density	3000-4000/ha (using single stem pruning)
Additional agronomic information	-

## Genetics

Lineage	Bourbon-like genetic background
Genetic description	Bourbon-Typica Group (Bourbon-related)
History	French missionaries introduced Bourbon from Yemen to Bourbon Island (now La Réunion)—giving it the name it has today—in the early 1700s. Until the mid-19th century, Bourbon did not leave the island. But beginning in the mid-1800s, the variety spread to new parts of the world as the missionaries moved to establish footholds in Africa and the Americas.