



# Robusta Varieties

A global catalog of Robusta coffee varieties from around the world.

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World Coffee Research  
10940 SW Barnes Rd #334  
Portland, OR 97225  
[worldcoffeeresearch.org](https://worldcoffeeresearch.org)

## About the Catalog

Information is power. There are dozens of widely cultivated Arabica and Robusta coffee varieties around the world, and each is unique in its performance and adaptation to local conditions. This catalog brings urgently needed information to coffee farmers to help them decide which coffee is best for their situation. Agronomic data—expected yield, nutrition requirements, optimal altitude, disease and pest resistance, etc—about the widespread array of existing cultivated Arabica and Robusta coffee varieties has never been available in an open-access format before.

Because the life of a coffee tree is 20-30 years, the decision producers make about which variety to plant will have consequences until the next generation. If a farmer makes a poor decision on variety, the cumulative loss can be huge. Most coffee farmers—who earn their livelihoods based on the decisions they make about what kind of coffee to plant—don't typically have access to transparent information about available varieties and how they differ. The lack of a comprehensive, up-to-date coffee catalog puts farmers at risk and perpetuates chronically low yields around the globe.

The purpose of the catalog is to lower the risk associated with coffee farming by providing direct information to farmers and other farm renovation or planting decision-makers to enable them to make an informed choice about what variety is best for their circumstances. Choosing the right type of coffee lowers the risk of disease and pest losses, has consequences for quality in the cup, and will be critical for coffee producers facing rapidly changing climates. Choosing the correct variety—one that meets the farmer's goals and needs—can significantly reduce losses due to diseases/pests, increase production volume, and/or increase quality.

Throughout the coffee-producing world, there is widespread need for replanting with young trees, trees resistant to major diseases and pests (including coffee berry disease, coffee leaf rust, antestia bug and stem borer), and with improved varieties capable of meeting the challenges of the climate crisis.

## Using the catalog

This catalog aims to present information for coffee producers and anyone working with coffee plants about how different varieties can be expected to perform under ideal conditions.

Of course, coffee is not always grown under ideal conditions. Factors such as environment, altitude, soil nutrition, weather, the age of the tree, and farm management practices can significantly affect a coffee tree's yield, quality, and health.

Because of this, it is impossible to give absolute data about certain aspects of a variety's performance (for example, cup quality or yield). In those cases, we provide a common variety (Caturra in Central America, SL28 in Africa) as a reference in the description of relevant variables. If a farmer knows how Caturra or SL28 would perform on their farm, given their particular climate, soil, and farm practices, they should be able to measure the relative performance of other varieties against that knowledge.

The intention of this catalog is that those working with coffee should be able to make informed decisions about which variety will work best for their situation and needs.

### **A living document**

This catalog of coffee varieties is a living document and will continue to grow as more regions of the world are covered and as new varieties are developed.

## What's included

This catalog covers varieties from the two species of coffee plants that are in wide cultivation globally—*C. arabica* (known as Arabica), and *C. canephora* (known as Robusta).

### Arabica

Arabica is the dominant species in Central and South America and much of east Africa, and is considered to produce the highest cup quality. The Arabica species is made up of many varieties or cultivars—distinct types that are able to sexually reproduce with one another.

### Robusta

Robusta is the second-most commonly grown coffee species; its commercial importance has grown steadily over the last century and it now accounts for approximately 40% of global production. The genetic diversity of robusta coffee is much larger than that of arabica, and it is only just beginning to be explored by breeders and the industry alike.

## Varieties scope

The varieties in this catalog have been selected for inclusion because of their economic, historical, cultural, or genetic importance to the global cultivation of coffee. World Coffee Research consulted widely with national coffee institutions, breeders, researchers, and coffee companies from across the world to make these selections.

Because the catalog is meant to be a practical tool and guide for coffee producers, it does not aim to represent an exhaustive list of all coffee varieties in existence. The varieties included here have been selected or developed by farmers and breeders primarily over the last century, although the domestication of coffee began at least 500 years ago.

### Definition of a variety

To be considered for inclusion in this catalog, varieties must meet the following standards (based on the definition of a variety as given by the International Union for the Protection of New Varieties of Plants (UPOV):

- The variety is **distinct**. It is distinguishable from other varieties based on the above set of characteristics.
- The variety is **uniform**. It can be precisely described by a set of characteristics and all the plants of this type look the same.
- The variety is **stable**. The variety can be reproduced in such a manner that its characteristics are unchanged in the next generation.

Note: There is some exception to the above rule of thumb. Some coffees included in this catalog—T5175, T5296, Anacafe 14, and Pacamara—do not meet the above definition because they are neither uniform nor stable from one generation to the next. They are included here because they are commonly known to farmers and grown widely in their respective regions, but it's important to know they lack uniformity and stability and therefore do not meet the definition of variety laid out here.

## Geographical scope

### Arabica

The current version of the arabica catalog covers the most important coffee varieties in the 15 countries listed below. Many varieties in this catalog are also found in countries not listed below.

- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Jamaica
- Kenya
- Malawi
- Nicaragua
- Panama
- Perú
- República Dominicana
- Rwanda
- Uganda
- Zambia
- Zimbabwe

### **Robusta**

The current version of the catalog covers important robusta varieties in the 8 countries listed below.

- Brazil
- Mexico
- Uganda
- Indonesia
- Vietnam
- India
- Thailand
- Philippines

# Partners and reviewers

A special thanks to the following individuals and institutions who provided expertise and information to guide the development of the full catalog.

## Arabica catalog

The arabica catalog was developed in consultation with coffee experts from across Central America and Africa. It is the result of visits to 16 countries and interviews of nearly 180 people from some over 100 private and public bodies involved in national or regional coffee sectors in Central America, the Caribbean, and Africa.

- Costa Rica  
Instituto del Café de Costa Rica (ICAFÉ)
- El Salvador  
Fundación Salvadoreña para Investigaciones en Café (PROCAFÉ)  
Consejo Salvadoreño de Café
- Guatemala  
Asociación Nacional del Café (ANACAFÉ)
- Honduras  
Instituto Hondureño del Café (IHCAFÉ)
- Jamaica  
Jamaica Agricultural Commodities Regulatory Authority (JACRA)
- Kenya  
Kenya Agricultural & Livestock Research Organization (KALRO)
- Malawi  
Department of Agricultural Research Services (DARS)
- Nicaragua  
Instituto Nicaragüense de Tecnología Agropecuaria (INTA)
- Panama  
Ministerio de Desarrollo Agropecuario (MIDA)
- República Dominicana  
Consejo Dominicano del Café (CODOCAFÉ)
- Perú  
Junta Nacional de Café (JNC)
- Rwanda  
Rwanda Agriculture Board (RAB)
- Uganda  
National Coffee Research Institute (NaCORI)
- Zimbabwe  
Coffee Research Institute

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- Noel Arrieta, Instituto del Café (ICAPE), Costa Rica
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- Job Chemutai Alunga, National Coffee Research Institute (NaCORI), Uganda
- Jane Cheserek, Kenya Agricultural & Livestock Research Organization (KALRO), Kenya
- Nathan Kachiguma, Department of Agricultural Research Services (DARS), Malawi
- Simon Martin Mvuyekure, Rwanda Agriculture and Livestock Development Board (RAB), Rwanda
- Pardon Chidoko, Coffee Research Institute (CRI), Zimbabwe
- Gusland McCook, Jamaica Agricultural Commodities Regulatory Authority (JACRA)
- Dulce Obin, PROMECAFE
- José Arnold Pineda, Instituto Hondureño del Café (IHCAFÉ), Honduras
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- Susana Schuller Petzold, Junta Nacional de Café (JNC), Peru
- Alfredo Zamarripa, RD2 Vision (formerly)

### **Robusta catalog**

The robusta catalog was developed in consultation with coffee experts across the world in South America, Central America, North America, Europe, Africa, and Asia. The following individuals and institutions that provided expertise and information to guide the development of this catalog:

- Alexsandro Lara Teixeira, Brazilian Agricultural Research Corporation (EMBRAPA), Brazil
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- Gava Ferrão, Capixaba Institute for Research, Technical Assistance and Rural Extension (INCAPER), Brazil
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- Kurian Raphael, Tata Coffee, India
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- Nayani Surya Prakash, Former Director of Research Coffee Board, India
- Rafael Chan, Nestlé, France
- Robert Adomati, UGACOF, Uganda
- Sunalini Menon, CoffeeLab Ltd., India
- Tracy May Adair, J.M. Smucker Co., USA
- Trinh Duc Minh, Buonmathuot Coffee Association, Vietnam
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## Introduction

The roots of *Coffea canephora*, commonly called robusta<sup>[1]</sup>, trace back hundreds of thousands of years to the humid, understory evergreen forests in tropical areas of central and western sub-Saharan Africa—a region with expansive geographic distribution from Guinea to Uganda to Angola (Dussert et al., 1999). It is one of the two species in the *Coffea* genus (which comprises a total of 131 species; Davis & Rakotonasolo, 2021) that are commercially cultivated on a global scale, and it is visually recognizable by its uniquely large blossoms and wide, spreading canopy.

Throughout history, this species has been grown in numerous forms and ecotypes, and in regions beyond its birthplace. Today, robusta is cultivated commercially in about 20 countries worldwide, characterized by warm climates and/or high humidity. Robusta's genetic diversity is vast, and while scientists have been researching this since the 1980s, there is still much to uncover about the species. Nonetheless, one thing about robusta is certain: it has dramatically evolved into a major market force. In recent decades, robusta cultivation has steadily increased, rising from 25% to 40% of total global coffee production since the early 1990s (Abacusbio, 2023, p. 13). Until now, *Coffea arabica*—the other globally dominant commercial coffee species—has held sway over most of the coffee market due to preferences for its cup quality. Many factors, including increasing demand for coffee, have led to expansions in robusta production in recent years. In 2023 alone, 177 million 60-kilogram bags of coffee were consumed worldwide—a 2.2% increase from the 2022-23 production year and a striking 4.5% jump from 2019-2020 (International Coffee Organization, 2024)—and demand is not expected to slow down.

With soaring demand at center stage, alongside the expected negative effects of climate change and limited historical investment in coffee agricultural innovation, an expanded role for robusta in the global coffee market is both practical and necessary. However, understanding of robusta is somewhat limited among buyers, consumers, and scientists alike, and its full potential in meeting market demand has yet to be realized.

## About robusta—a species of untapped potential

Robusta has its wild origins in central and western sub-Saharan Africa, mainly in the humid understory of low-elevation evergreen forests (50–1500 m), but sometimes in seasonally dry humid forests or gallery forests (Davis et al., 2006).

Much of the movement of robusta beyond its centers of origin and domestication, as well as the increase in the popularity of its production during the early 1900s, can be attributed to the spread of coffee leaf rust—a fungal disease that ravaged arabica coffee plants and remains a significant global concern. One of the greatest benefits of robusta production is that some varieties possess an exceptionally high natural resistance to major pests and diseases that impede successful and profitable production, including rust; these plants can often thrive under harsh conditions (Campuzano-Duque & Blair, 2022). This resilience or robustness is one reason why *Coffea canephora* is often colloquially referred to as *robusta* (nomenclature that was first used by Linden in 1900; Dagoon, 2005).

Global growth in demand for robusta has been driven by the advent of soluble coffee and the increasing popularity of robusta in blends. The expansion of robusta production to meet this demand has been possible because robusta can grow in areas unsuitable for arabica. For example, it can produce high crop yields and maintain stress resilience in hotter, more humid temperature ranges than arabica, which typically occur at lower elevations (between 200–800 meters above sea level; Slipchenko, 2021). Robusta plants typically have greater crop yields, contain higher levels of caffeine, lower levels of sugar, higher levels of soluble solids, and are less susceptible to damaging pests and diseases (Goldemberg et al., 2015).



Many observers speculate that robusta may increasingly serve as an alternative to arabica as rising temperatures and altered precipitation patterns make arabica cultivation more challenging in the coming decades (Bunn et al., 2015; de Aquino et al., 2022; Dinh et al., 2022; Kath et al., 2022; Kath et al., 2023). Despite the opportunities presented by robusta, it faces considerable challenges of its own. One primary threat to long-term, sustainable robusta production from diverse origins is the sometimes steep disparities in productivity<sup>[2]</sup> and profitability<sup>[3]</sup>, caused by numerous factors, including labor costs and increased competition from other crops. Additionally, despite its oft-cited “robustness,” robusta is still sensitive to environmental disturbances. Robusta plants generally have high precipitation needs, and recent research suggests that robusta’s ability to thrive in hotter climates may have been previously overstated; temperatures over 20.5 degrees Celsius can have significantly negative impact on yields (Kath et al., 2020; Tournebize et al., 2022).

Moreover, many robusta varieties are at least somewhat susceptible to key diseases and pests, such as coffee wilt disease, red blister disease, stem borer, coffee berry disease, coffee berry borer, nematodes, and even coffee leaf rust, among others (Vega et al., 2006).

Another key difference between robusta and arabica pertains to taste and cup quality (Leroy et al., 2006). Coffee brewed from robusta beans is often lower in acidity, higher in bitterness, and more “full-bodied” due to its pyrazine content (Semmelroch & Grosch, 1995), an aromatic compound known for its earthiness. While the cup quality of robusta is often disparaged, when handled and processed properly, it can serve as a product for specialty markets (Uganda Coffee Development Authority, 2019). Agronomic and post-harvest processing efforts, including quality control of fermentation processes, can make an immediate and crucial difference in robusta production and quality. However, there remains significant unexplored territory in optimizing robusta’s performance in the field and its cup quality on a commercial scale.

### **The story of a species: The history of robusta’s cultivation and dispersal**

The first documented cultivation of robusta began around 1870 in Congo, using genetic material from the Lomani River region in what is now the Democratic Republic of Congo (Berthaud & Charrier, 1988). However, it is likely that small-scale production by individual farmers and their families had been ongoing for decades prior to this point. A subtype of robusta called “koillou” (later renamed “conilon” through linguistic distortion when it was introduced to Brazil) was observed in the wild by the French in 1880 between Gabon and the mouth of the Congo River, mainly along the Kouilou-Niari River region. The species was named by the botanist Louis Pierre in 1895. Pierre, who worked at the Muséum National d’Histoire Naturelle in France, received a sample of the plant collected in Gabon by the Reverend Théophile Klaine. The name—*Coffea canephora* var. *Pierre* ex A. Froehner—was first published along with a description of the species by Froehner (1897).

One year later, Edouard Luja was sent to collect species with economic potential in what was then called Belgian Congo (now the Democratic Republic of Congo) in preparation for the 1900 Paris Exposition. During this mission, Luja collected several thousand seeds from a “new” coffee species found in an early robusta plantation in the region (Benoit, 1968). Belgian Congo became one of the principal centers of diversity, from which new lines were distributed throughout the tropics.

At the turn of the century, the species began to spread to other parts of the world. Robusta seeds from Congo were sent to Brussels, and from there they were dispatched under the name “robusta” to Java, Indonesia, where they were quickly accepted by farmers due to their high productivity and apparent resistance to coffee leaf rust—especially as a major outbreak of the disease affected *C. arabica* plants in Southeast Asia in the late 1800s (Cramer, 1957). In fact, it was in Indonesia that pioneering, systematic robusta breeding was first conducted (Ferwerda, 1948). These materials were later enriched with genetic material from Gabon and Uganda. Around the same time, other robusta material selected from wild populations was introduced to areas of Ivory Coast, Guinea, and Uganda (Charrier and Eskes, 1997).

From here, robusta continued to spread around the world, entering India via Java, with later introductions from West Africa. Material selected in Java was reintroduced to Central Africa from 1910 onward and to the Democratic Republic of Congo (then Belgian Congo) in 1916 at the Institut National pour l'Étude Agronomique du Congo (INEAC), which became the center for selection from 1930 to 1960. Within Africa, robusta was produced in Madagascar, Uganda, Ghana, and Ivory Coast. Endemic variants often intermingled with those introduced from commercial production in other parts of the continent. Robusta was later introduced to Latin America, with the conilon group introduced in Brazil in 1912 to Espiritu Santo. Additional commercial introductions occurred in Central America via Guatemala between 1930 and 1935.

Today, just six countries—Vietnam, Brazil, Indonesia, Uganda, India, and Côte d'Ivoire—produce 95% of the world's robusta (Abacusbio, 2023). Laos, Tanzania, Madagascar, and Thailand follow these nations in production, making up the remainder of the top ten producing regions worldwide. Countries in Asia and Oceania are collectively the largest producers of robusta, generating 60% of the world's output at 41.5 million 60 kg bags annually. This region is followed by South America, which produces 28% of the world's robusta, generating 19.8 million bags of coffee in the 2020-21 year (Abacusbio, 2023).

### **Discovering robusta's genetic diversity**

Robusta coffee has a wide scope of genetic diversity, with many distinct sub-populations. Wild populations are the primary genetic relatives of robusta coffee, and cultivated coffee has changed relatively little from its wild progenitors. Many unknown variations, including potentially beneficial traits related to production and cup quality, exist within the robusta gene pool. By and large, these hidden variations have yet to be explored and utilized by scientists and breeders. Deepening the understanding of robusta diversity and its integration into breeding programs is crucial for continuous and long-term genetic gains.

Robusta is also a genetic relative of arabica (Bawin et al., 2020; Chadburn & Davis, 2017; Scalabrin et al., 2020) and is closely related enough that historical breeding efforts have successfully transferred some disease resistance from robusta into arabica cultivars (Bettencourt, 1973). Potential disease and pest resistance transference remains possible for future breeding efforts.

Many different common terms are used to describe robusta in the areas where it is grown. These terms include “robusta,” “conilon,” “nganda,” “koillou/quillou,” and others. These terms are generally regional and colloquial, and they do not necessarily correspond to specific genetically distinct varieties or clones.

What scientists do know is that robusta is a diploid species divided into two broad genetic groups: Guinean and Congolese. The Guinean group—which is generally characterized by narrow internodes, high caffeine content, low bean weight, drought resistance, secondary branching, and early harvest—originated in central-west Africa. In contrast, the Congolese group—which typically has higher rust resistance, medium caffeine content, high bean weight, drought susceptibility, larger internodes, tall growth, and late harvesting—originated in central Africa (Herrera & Lambot, 2017). Among these two groups, the Congolese is the most widespread. Additionally, within each group, there are different populations or subgroups (see Figure 1 below).

It is noteworthy to highlight that there have been massive introductions of Congolese-type trees into areas of Côte d'Ivoire that are home to wild endemic populations from the Guinean gene pool, which threaten the genetic integrity of wild populations from the Guinean gene pool (Gnapi et al., 2022).

To conserve robusta's vast diversity, field gene banks in several producing countries in Africa and Asia have established repositories of robusta genetics (Bramel et al., 2017). Targeted, globally coordinated robusta collection and exchange were conducted starting in the 1960s from "centers of domestication." Important collecting missions included a mission to Côte d'Ivoire, which collected 700 wild genotypes by ORSTROM in collaboration with the Centre de Coopération Internationale en Recherche Agronomique pour le Développement. Additionally, the species has been collected in Guinea, Cameroon, the Congo, and the Central African Republic. From these collecting missions, robusta was introduced to field genebanks around the world, including in Cameroon, Ivory Coast, Madagascar, India, and Costa Rica, among others. Wherever robusta germplasm has been introduced, it has faced—and continues to face—significant management and genetic erosion challenges (Bramel et al., 2017).

### **Robusta in farmers' fields**

Because robusta necessarily cross-pollinates—a single robusta clone cannot successfully pollinate its own flowers, as arabica trees can do—but requires pollen from two different types of plants to produce new cherries (scientists call this "alogamous"; Nowak, 2011)—subtypes grown in the same field typically interbreed (Thomas, 1935). For this reason, it is necessary for farmers to grow more than one type of robusta clone in their fields to ensure successful pollination and fruit production. Robusta plantations are therefore never genetically uniform. Historically, robusta farmers had little awareness of which varieties or subtypes they were growing, although this awareness is increasing.

Most currently cultivated robusta consists either of trees originating from open-pollinated seeds (Labouisse et al., 2020) or multi-line clones (these varieties, which are also called "polyclonal," are comprised of an intentional mix of genetically distinct clones; Campuzano-Duque & Blair, 2022; Montagnon et al., 2003; Berthaud & Charrier, 1998).

However, not all robusta types can successfully grow together in a field. The cross-compatibility of types is genetically controlled; in other words, some varieties are unable to fertilize one another (Lashermes et al., 1996; Prakash, 2018). So far, research on optimal combinations of subtypes in production has been scarce, but one key consideration is simultaneous flowering (Silva et al., 2024).

In different production regions, the release and distribution of such mixes to farmers is handled differently. For example, in West Africa, it is common for breeders to create polyclonal seed varieties (i.e., multiple different types of robusta are distributed together in the same seed packets to farmers). In Brazil, it is more common for breeders to create multiple unique clones that are then tested for compatibility; the highest-performing complementary clones are then propagated and released to farmers as clonally propagated seedlings (Depolo et al., 2022; Prakash, 2018).

### **The future of robusta**

The world may soon face challenges in keeping up with the rising demand for robusta, just as it currently does for arabica (Abacusbio, 2023). While some strong breeding initiatives have emerged at national coffee institutes across Asia, Africa, and Latin America, there remains a significant opportunity for scientists to better understand robusta's genetic diversity and leverage it through modernized breeding initiatives. This can strengthen the species' long-term viability for farmers by focusing on traits such as yield, disease resistance, climate resilience, and selective improvements in cup quality. Collaborations between scientists and institutions can enhance shared services and tools, expand knowledge, and accelerate efforts to develop and deploy innovations. Clearing a path for transformative innovation in robusta will help safeguard the well-being of coffee farming communities and the global coffee industry as a whole.

### **Footnotes**

[1] Throughout this essay and the catalog generally, we use this term "robusta" to refer to the entire *C. canephora* species and all its subtypes.

[2] Compare 1.9 bags/ha in Côte d'Ivoire to 10.4 or 47.7 bags/ha in Uganda and Vietnam respectively; see Table 1 in Abacusbio, 2023.

[3] See Martinez, 2023; Hasan et al., 2020.

## References

- Abacusbio. (2023). *Opportunities for robusta variety innovation* [White paper]. World Coffee Research. <https://worldcoffeeresearch.org/resources/opportunities-for-robusta-variety-innovation>
- Bawin, Y., Ruttink, T., Staelens, A., Haegeman, A., Stoffelen, P., Mwanga, J. I. M., Roldán-Ruiz, I., Honnay, O., & Janssens, S. B. (2020). Phylogenomic analysis clarifies the evolutionary origin of *Coffea arabica*. *Journal of Systematics and Evolution*, 59(5), 953–963. <https://doi.org/10.1111/jse.12694>
- Benoit, P. L. G. (1968). Luja (Edouard Pierre). In *Biographie belge d'Outremer* (pp. 676–678). Académie Royale des Sciences d'Outre-Mer.
- Berthaud, J., & Charrier, A. (1988). Use and value of genetic resources of *Coffea* for breeding and their long-term conservation. In *Mitteilungen aus dem Institut für allgemeine Botanik in Hamburg* (Vol. 23a, pp. 53–64). [https://horizon.documentation.ird.fr/exl-doc/pleins\\_textes/pleins\\_textes\\_5/b\\_fdi\\_30\\_30/31603.pdf](https://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_5/b_fdi_30_30/31603.pdf)
- Berthaud, J. (1986). *Les ressources génétiques pour l'amélioration des caféiers africains diploïdes* [Doctoral thesis, University of Paris]. Orstom. [https://horizon.documentation.ird.fr/exl-doc/pleins\\_textes/divers11-12/16623.pdf](https://horizon.documentation.ird.fr/exl-doc/pleins_textes/divers11-12/16623.pdf)
- Bettencourt, A. J. (1973). *Considerações gerais sobre o 'Híbrido de Timor'* (Instituto Agronômico de Campinas. Circular n° 23:20).
- Botanic Gardens Conservation International, PlantSearch. (2023, March 9). <https://www.bgci.org>
- Bramel, P., Krishnan, S., Horna, D., Lainoff, B., & Montagnon, C. (2017). *Global conservation strategy for coffee genetic resources*. Crop Trust & World Coffee Research. <https://worldcoffeeresearch.org/resources/global-coffee-conservation-strategy>
- Bunn, C., Läderach, P., Ovalle Rivera, O., & Kirschke, D. (2015). A bitter cup: Climate change profile of global production of Arabica and Robusta coffee. *Climatic Change*, 129(1), 89–101. <https://doi.org/10.1007/s10584...>
- Campuzano-Duque, L. F., & Blair, M. W. (2022). Strategies for robusta coffee (*Coffea canephora*) improvement as a new crop in Colombia. *Agriculture*, 12(10), 1576. <https://doi.org/10.3390/agriculture12101576>
- Chadburn, H., & Davis, A. P. (2017). *Coffea stenophylla*. The IUCN Red List of Threatened Species. International Union for Conservation of Nature and Natural Resources. <http://dx.doi.org/10.2305/IUCN...>
- Cramer, P. J. S., & Wellman, F. L. (1957). A review of literature of coffee research in Indonesia. Inter-American Institute of Agricultural Sciences. <https://repositorio.iica.int/handle/11324/14860>
- Charrier, A., & Eskes, A. B. (1997). Les caféiers. In A. Charrier et al. (Eds.), *L'Amélioration des Plantes Tropicales* (pp. 171–196). CIRAD-Orstom. [https://horizon.documentation.ird.fr/exl-doc/pleins\\_textes/divers09-03/010012930.pdf](https://horizon.documentation.ird.fr/exl-doc/pleins_textes/divers09-03/010012930.pdf)
- Charr, J., Garavito, A., Guyeux, C., Crouzillat, D., Descombes, P., Fournier, C., Ly, S. N., Raharimalala, E. N., Rakotomalala, J., Stoffelen, P., Janssens, S., Hamon, P., & Guyot, R. (2020). Complex evolutionary history of coffees revealed by full plastid genomes and 28,800 nuclear SNP analyses, with particular emphasis on *Coffea canephora* (Robusta coffee). *Molecular Phylogenetics and Evolution*, 151, 106906. <https://doi.org/10.1016/j.ympev.2020.106906>
- Cubry, P., Pot, D., De Bellis, F., Legnaté, H., & Leroy, T. (2008). Genetic structure of *Coffea canephora* Pierre species assessed by microsatellite markers [Conference presentation]. *Plant and Animal Genomes XVIth Conference*, San Diego, CA, United States.
- Dagoon, J. D. (2005). *Agriculture & Fishery Technology*. Rex Bookstore, Inc.
- Davis, A. P., Govaerts, R., Bridson, D. M., & Stoffelen, P. (2006). An annotated taxonomic conspectus of the genus *Coffea* (Rubiaceae). *Botanical Journal of the Linnean Society*, 152(4), 465–512. <https://doi.org/10.1111/j.1095-8339.2006.00584.x>

- Davis, A. P., Tosh, J., Ruch, N., & Fay, M. F. (2011). Growing coffee: *Psilanthus* (Rubiaceae) subsumed on the basis of molecular and morphological data; implications for the size, morphology, distribution and evolutionary history of *Coffea*. *Botanical Journal of the Linnean Society*, 167(4), 357–377. <https://doi.org/10.1111/j.1095-8339.2011.01177>
- Davis, A. P., & Rakotonasolo, F. (2021). Six new species of coffee (*Coffea*) from northern Madagascar. *Kew Bulletin*, 76(3), 497–511. <https://doi.org/10.1007/s12225-021-09952-5>
- Daviron, B., & Ponte, S. (2005). *The coffee paradox: Global markets, commodity trade and the elusive promise of development*. Zed Books.
- de Aquino, S. O., Kiwuka, C., Tournebize, R., Gain, C., Marraccini, P., Mariac, C., ... & Poncet, V. (2022). Adaptive potential of *Coffea canephora* from Uganda in response to climate change. *Molecular Ecology*, 31(6), 1800–1819. <https://doi.org/10.1111/mec.16360>
- Depolo, R. P., Rocha, R. B., Souza, C. A. D., Santos, M. R. A. D., Espindula, M. C., & Teixeira, A. L. (2022). Expression of self-incompatibility in *Coffea canephora* genotypes grown in the western Amazon. *Pesquisa Agropecuária Brasileira*, 57. <https://doi.org/10.1590/S1678-3921.pab2022.v57.03031>
- Dinh, T. L. A., Aires, F., & Rahn, E. (2022). Statistical analysis of the weather impact on Robusta coffee yield in Vietnam. *Frontiers in Environmental Science*, 10, 880. <https://doi.org/10.3389/fenvs.2022.820916>
- Dussert, S., Lashermes, P., Anthony, F., Montagnon, C., Trouslot, P., Combes, M. C., ... & Hamon, S. (1999). Le caféier, *Coffea canephora*. In *Diversité génétique des plantes tropicales cultivées* (pp. 175-194). <https://agritrop.cirad.fr/391712/7/ID391712.pdf>
- Ferwerda, F. P. (1948). Coffee breeding in Java. *Economic Botany*, 2(3), 258–272. <https://doi.org/10.1007/bf02859068>
- Froehner, A. (1897). Notizblatt des Königl. Botanischen Gartens und Museums zu Berlin, 1, 234. <https://www.biodiversitylibrary.org/page/28795724#page/279/mode/1up>
- Gnapi, D. E., Pokou, D. N., Legnate, H., et al. (2022). Is the genetic integrity of wild *Coffea canephora* from Ivory Coast threatened by hybridization with introduced coffee trees from Central Africa? *Euphytica*, 218, 62. <https://doi.org/10.1007/s10681-022-03004-0>
- Goldemberg, D. (2019). Phenotypic and genetic characterization of the *Coffea canephora* collection at the University of São Paulo (USP). *Revista Brasileira de Ciências Agrárias*, 14(1), 70–75. <https://doi.org/10.5039/agrari...>
- Gonzalez, M. (2019). *Coffea canephora* (Robusta coffee): A review of its genetic diversity and breeding. *Journal of Agronomy and Crop Science*, 205(1), 1–17. <https://doi.org/10.1111/jac.12...>
- Griffin, K. J., & Smith, D. B. (2015). Genetic improvement of coffee. In H. D. Schaefer & J. E. Edwards (Eds.), *The chemistry of coffee* (pp. 89–106). Springer. <https://doi.org/10.1007/978-3-...>
- Harcourt, P. E., Ahn, S. J., & Annor, B. (2021). Genetic resources of coffee: Status and perspectives. *Frontiers in Plant Science*, 12, 753236. <https://doi.org/10.3389/fpls.2...>
- Hernández, E. H., Hogg, K. T., & Kreiger, N. (2019). Towards a more resilient coffee industry: How climate change impacts production. *International Journal of Agricultural Sustainability*, 17(1), 1–17. <https://doi.org/10.1080/147359...>
- Jouannic, S., & Esnault, D. (2005). *Le caféier Robusta (Coffea canephora): Variétés, hybridation, production*. Cirad.
- Jouannic, S., Fleck, M., & Noirot, M. (2018). Genetic variation and hybridization in *Coffea canephora* from a production area in Central Africa. *Frontiers in Plant Science*, 9, 139. <https://doi.org/10.3389/fpls.2...>
- Kakuhenzire, I. S., & Ddumba, D. (2013). Coffee production in Uganda: A review of recent trends and challenges. *Uganda Journal of Agricultural Sciences*, 14(1), 61–72. <https://www.ajol.info/index.ph...>
- Kotsiras, A., & Varotsos, C. (2022). The genetics of coffee: A review on progress and future perspectives. *Plant Biotechnology Journal*, 20(1), 1–15. <https://doi.org/10.1111/pbi.13...>
- Krishnan, S., & Montagnon, C. (2015). The future of coffee: A breeding perspective. In J. A. A. R. Davison & A. M. C. R. Esteves (Eds.), *Coffee: Emerging trends* (pp. 19–37). Wiley. <https://doi.org/10.1002/978111...>
- Lafleur, C., & Montagnon, C. (2022). The value of coffee genetic resources: Where are we now and where do we need to go? *Journal of Agricultural and Food Chemistry*, 70(8), 2542–2554. <https://doi.org/10.1021/acs.ja...>

- Leigh, C., & Crouzillat, D. (2022). Genomic insights into *Coffea canephora*: Comparative analysis of transcriptomes and metabolomes. *Molecular Plant*, 15(4), 590–610. <https://doi.org/10.1016/j.molp...>
- Lemieux, J., Mottet, A., & Olsson, A. (2021). Global challenges for coffee sustainability: Adapting to climate change and sustainable sourcing. *Sustainability*, 13(5), 2471. <https://doi.org/10.3390/su1305...>
- López, C. F., & Orozco, D. C. (2022). Genomic tools for coffee genetic resources conservation: Strategies for the future. *Frontiers in Plant Science*, 13, 850356. <https://doi.org/10.3389/fpls.2...>
- Mekonnen, A. A., & Woldemariam, K. A. (2021). Evaluation of *Coffea canephora* germplasm from Uganda for resistance to coffee leaf rust and quality traits. *Journal of Crop Improvement*, 35(5), 699–711. <https://doi.org/10.1080/154275...>
- Meyer, N. (2017). Coffee in the new economy: The role of scientific innovation and technology. *Agroecology and Sustainable Food Systems*, 41(3), 281–296. <https://doi.org/10.1080/216835...>
- Musa, I., Achour, S., Poncet, V., & Lerbs, M. (2022). *Coffea canephora* genetic resources: Impacts on coffee production and industry. *Sustainability*, 14(16), 10293. <https://doi.org/10.3390/su1416...>
- Nicolas, P., & Jaffré, T. (2017). *Coffea canephora*: A review of the ecological and economic significance of Robusta coffee. *African Journal of Agricultural Research*, 12(26), 2303–2313. <https://doi.org/10.5897/AJAR20...>
- Oliveira, M. A., Rodrigues, M. M., & Silva, A. G. (2022). Genetic diversity and population structure of *Coffea canephora* using molecular markers. *Molecular Biology Reports*, 49, 1017–1031. <https://doi.org/10.1007/s11033...>
- Orozco, D. C., & López, C. F. (2020). The role of coffee genetic resources in sustainable agriculture. *Plant Science*, 302, 110677. <https://doi.org/10.1016/j.plan...>
- Pérez, J. A., & Villegas, S. L. (2019). Climate change and coffee quality: A review of impacts and adaptation strategies. *Agricultural and Forest Meteorology*, 265, 56–64. <https://doi.org/10.1016/j.agrf...>
- Phillips, M., & Davi, K. (2021). The impact of climate change on coffee production: Implications for future research and policy. *Climate Policy*, 21(1), 118–132. <https://doi.org/10.1080/146930...>
- Ponce, D., & Ponce, J. (2020). *Coffea canephora*: Genetic diversity, conservation and utilization. *Genetic Resources and Crop Evolution*, 67(4), 889–902. <https://doi.org/10.1007/s10722...>
- Pérez, L. R., & Carrillo, A. C. (2023). Genomic and phenotypic characterization of *Coffea canephora*: A new perspective for coffee breeding. *Plant Biotechnology Journal*, 21(5), 992–1005. <https://doi.org/10.1111/pbi.13...>
- Santos, M. A. R. D., & D'Avila, M. A. (2021). Advances in coffee breeding in Brazil. In *Plant Breeding Reviews* (Vol. 45, pp. 193–225). Wiley. <https://doi.org/10.1002/978111...>
- Segrè, A. (2019). Historical perspectives on coffee production and consumption: Socio-economic implications. *Journal of Cultural Heritage Management and Sustainable Development*, 9(4), 337–347. <https://doi.org/10.1108/JCHMSD...>
- Siqueira, T. L. D., & Almeida, A. C. (2021). Resilience in coffee production: Genetic diversity and adaptability in a changing climate. *BMC Plant Biology*, 21, 275. <https://doi.org/10.1186/s12870...>
- Tao, L. Y., & Geng, S. S. (2022). *Coffea canephora*: Genetic improvement for better resilience to climate change. *Agronomy*, 12(5), 1169. <https://doi.org/10.3390/agrono...>
- Teixeira, A. M., & Gomes, L. F. (2019). Perspectives on coffee breeding: Genetic diversity and sustainable production. *Plant Breeding*, 138(5), 526–533. <https://doi.org/10.1111/pbr.12...>
- Turgut, O., & Güler, S. (2021). Genetic diversity and climate resilience in *Coffea canephora*: Strategies for sustainable coffee production. *Journal of Agricultural and Food Chemistry*, 69(8), 2348–2362. <https://doi.org/10.1021/acs.ja...>
- Valerio, A., & Mangini, G. (2020). Conservation of genetic resources in *Coffea canephora*: Current status and future strategies. *Frontiers in Plant Science*, 11, 1–12. <https://doi.org/10.3389/fpls.2...>
- Wang, M., & Tian, J. (2022). Strategies for enhancing the resilience of *Coffea canephora* to climate change: A review. *Agricultural Sciences*, 13(4), 391–405. <https://doi.org/10.4236/as.202...>
- Wong, T. H., & Thong, H. C. (2022). Genomics and breeding of *Coffea canephora*: Advances and prospects. *Journal of Agricultural Science*, 14(5), 25–38. <https://doi.org/10.5539/jas.v1...>

Zhao, M., & Liu, Y. (2021). Assessing the genetic diversity of *Coffea canephora* using SSR markers: Implications for conservation and breeding. *Genetics and Molecular Research*, 20(4), gmr18555. <https://doi.org/10.4238/gmr185...>

# Variables

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## YIELD POTENTIAL

What is the yield potential of this variety in kg/ha of green beans? *Note that yield can vary significantly depending on environmental conditions and how the variety is managed. Yield values presented here are the result of specific limited field trials undertaken by the breeders of this variety; they do not represent guarantees of yield.*

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## COUNTRY OF RELEASE

In which countries is the variety commercially available?

Mexico, Uganda, Indonesia, India, Vietnam, Brazil, Thailand, Philippines, Nicaragua



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## CONTENTS OF MUCILAGE IN THE CHERRY

What is the relative amount of mucilage in the cherry? (Mucilage is the inner layer of coffee pulp that remains attached to the parchment after pulping.)

Low, Average, High, Unknown, Not applicable



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## BEAN SIZE

How big are the coffee beans?

Below Average, Average, Large, Very Large, Unknown, Not applicable



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## COFFEE LEAF RUST

Is the plant susceptible to leaf rust?

Coffee rust is a foliar disease of coffee caused by the fungus *Hemileia vastatrix* that causes defoliation and may result in severe crop losses. Plant diseases are constantly evolving. *Note: A variety that is resistant to a disease today may not be resistant tomorrow.*

Resistant, Tolerant, Susceptible, Unknown, Not applicable



---

COFFEE BERRY DISEASE

Is the plant susceptible to CBD?

CBD is a coffee disease that affects the fruit. It is caused by the fungus, *Colletotrichum kahawe*. Currently, CBD is not present in Central America, but it is a concern that the disease will spread. *Note: Plant diseases are constantly evolving. A variety that is resistant to a disease today may not be resistant tomorrow.*

Resistant, Tolerant, Susceptible, Unknown, Not applicable

---

NEMATODE

Is the plant susceptible to nematodes (specifically the species *Meloidogyne spp.* and/or *Pratylenchus spp.*)? Nematodes are microscopic animals which infect the plant roots and can cause wilting and death of the plant.

Resistant, Tolerant, Susceptible, Unknown, Not applicable

---

COFFEE BERRY BORER

Is the plant susceptible to coffee berry borer? Coffee berry borer (*Hypothenemus hampei*), called broca in Spanish, is a bark beetle endemic to Central Africa that is now distributed throughout all coffee-producing countries in the world, with the exception of Nepal and Papua New Guinea.

Resistant, Tolerant, Susceptible, Unknown, Not applicable

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SHOOT HOLE BORER (\_XYLOSANDUS COMPACTUS\_)

Is the plant susceptible to shoot hole borers (*Xylosandus compactus*)? Shoot hole borer is a species of ambrosia beetle. Common names for this beetle include black twig borer, black coffee borer, black coffee twig borer, and tea stem borer.

Resistant, Tolerant, Susceptible, Unknown, Not applicable

---

STATURE

What is the growth habit of the plant (e.g., is the plant tall or compact)?

Dwarf, Tall, Unknown, Not applicable

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YEAR OF FIRST PRODUCTION

When will the tree produce its first fruit?

Year 2, Year 3, Year 4, Unknown, Not applicable

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NUTRITION REQUIREMENT

What level of nutrition (e.g., compost, fertilizer) does this plant require?

Very High, High, Medium, Low, Unknown, Not applicable

---

RIPENING OF FRUIT

At what time in the harvest season will the tree fruit ripen?

For Arabica reference, Caturra = Average. No Robusta reference.

Early, Average, Late, Very late, Unknown, Not applicable

---

CHERRY TO GREEN BEAN OUTTURN

What is the ratio of the volume of green bean in relation to the cherry/fruit (given as a percentage)?

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PLANTING DENSITY

What spacing should you use for planting this variety? Note: In Central America, trees are typically pruned to have one main stem. In Africa, it is typical to prune trees for multiple (2-3) stems per tree. So, while tree planting densities typically are much lower in Africa, each tree is fruiting relatively more because there are multiple main stems.

1000-2000 per ha (using multiple-stem pruning)

2000-3000 per ha (using multiple-stem pruning)

3000-4000 per ha (using single-stem pruning)

5000-6000 per ha (using single-stem pruning)

4000-5000 per ha (using single-stem pruning)

Unknown

Not applicable

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LEAF TIP COLOR

What color are the tips of new leaves?

Green, Bronze, Green or Bronze, Light Bronze, Dark Bronze, Unknown, Not applicable

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TYPE

What type of Robusta variety is it? *When an individual plant is selected for its unique or superior qualities and is held separate for propagation, the plants propagated from this mother plant are called clones. They are exact genetic copies of the mother. Because Robusta is an out-crossing species, it requires that more than one clone be planted in the same field in order to produce fruit. Polyclonal varieties are composed of an intentional mix of genetically distinct clones. Synthetic varieties are developed by allowing open pollination to occur for several generations among a number of different cultivars, such as inbreds.*

Clone, Polyclonal, Polyclonal/synthetic

---

GENETIC DESCRIPTION

To which genetic group of Robusta does this variety belong?

Guinea group

Congo group

Uganda group

Guinea x Congo group

Guinea x *Coffea congensis* group

Unknown

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LINEAGE

What are the parents of this variety (when known) or what is its genetic lineage?

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BREEDER

If the variety was created by a breeder, what is the name of the breeder?



## BP 534

Most commonly grown clone by farmers in Indonesia; suitable for cultivation under agroforestry systems.

### YIELD POTENTIAL

1700-2200 kg/ha

### COUNTRY OF RELEASE

Indonesia



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Tolerant



SUSCEPTIBLE

RESISTANT

### NEMATODE

Resistant

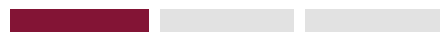


SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	21%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Suitable for wet climates in areas with elevation 400–900 meters above sea level. The plant has short internodes. There is a clear white line on green cherry. This clone is susceptible to <i>Pratylenchus coffeae</i> . Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Individual selection labeled 6 from a Congolensis population.
BREEDER	Indonesian Coffee and Cocoa Research Institute (ICCRI)



## BP 936

Wide adaptability to different environments, with optimal productivity in areas with wet climates; suitable for cultivation under agroforestry systems.

### YIELD POTENTIAL

1600-2200 kg/ha

### COUNTRY OF RELEASE

Indonesia



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Tolerant



SUSCEPTIBLE

RESISTANT

### NEMATODE

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	The clone has wide adaptability, but optimal productivity will be achieved in wet climates areas with elevations ranging from 400–900 meters above sea level. This clone is susceptible to <i>Pratylenchus coffeae</i> . Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	SA 164-11 x BP 42
BREEDER	Indonesian Coffee and Cocoa Research Institute (ICCRI)



## BP 939

Wide adaptability to different environments that produces best in areas with dry climates; suitable for cultivation under agroforestry systems.

### YIELD POTENTIAL

1400-1900 kg/ha

### COUNTRY OF RELEASE

Indonesia



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Tolerant



SUSCEPTIBLE

RESISTANT

### NEMATODE

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	21%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	The clone has wide adaptability but optimal productivity will be achieved in dry climate areas with altitudes ranging between 400–900 meters above sea level. This clone is susceptible to <i>Pratylenchus coffeae</i> . Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	BP 42 x SA 1366
BREEDER	Indonesian Coffee and Cocoa Research Institute (ICCRI)



## BRS 1216

Adaptable to the environments of the Western Amazon with high productivity. Plant structure suitable for mechanized harvesting. Resistant to nematodes and coffee rust.

### YIELD POTENTIAL

7200 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	High yield per hectare when established in full sun with no shade. When in an environment with low water availability in the soil, it shows generalized yellowing. Overall beverage quality score (Specialty Coffee Association) = 79 points. Flavor attributes: Chocolate, cereals, woody. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups II and III, as this variety is from Group I.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Robusta 1675 x Encapa 03
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 2299

Plant structure suitable for mechanized harvesting. Stands out for its tolerance to the root-knot nematode *Meloidogyne sp.*

### YIELD POTENTIAL

6600 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare when established in full sun with no shade. It can present a greater unevenness in the ripening of fruits, caused by irregular flowering in years of greater rain frequency during the dry season. Overall beverage quality score (Specialty Coffee Association) = 70 points. Flavor attributes: Neutral, cereal, herbal. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and III, as this variety is from Group II.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)





## BRS 2314

High cupping scores; has been classified as a 'fine robusta.'

### YIELD POTENTIAL

6600 kg/ha

### COUNTRY OF RELEASE

Brazil



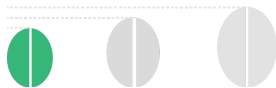
### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Small (screen size 14 or below)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Resistant

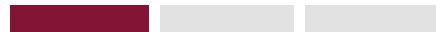


SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare under irrigation. This cultivar has received 80 points or more in all the cupping events conducted, reaching 87.2 points in one of the samples. Following the Fine Robustas Tasting Protocol developed by the Coffee Quality Institute, it has been classified as a 'Fine Robusta.' Average beverage quality score (Specialty Coffee Association) = 80 points. Flavor attributes: chocolate, caramel, fruit. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and III, as this variety is from Group II.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Robusta 640 X Encapa 03
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 2336

Adaptable to the environments of the Western Amazon, with high productivity and bean size.

### YIELD POTENTIAL

7200 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Susceptible



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare when established in full sun with no shade. Resistant to water stress; however, irrigation is recommended. Leaves demonstrate the behavior of plants under water stress, even in conditions of high water availability. Beverage quality score (Specialty Coffee Association) = 75 points. Flavor attributes: sweet aftertaste, soft. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and III, as this variety is from Group II.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 2357

Compact canopy, which allows for densification. Short stems allow one additional harvest before renewal.

### YIELD POTENTIAL

6000 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Susceptible



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Susceptible



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Dark Bronze
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare when established in full sun with no shade. It has small, narrow leaves that allow good air circulation inside its crown. It is susceptible to the root-knot nematode, and is susceptible to coffee leaf rust. Beverage quality score (Specialty Coffee Association) = 70 points. Flavor attributes: neutral, no attributes worth highlighting. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and III, as this variety is from Group II.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 3137

Recognized for its rusticity, presenting good vegetative and productive characteristics in dry conditions and low-fertility soils.

### YIELD POTENTIAL

6600 kg/ha

### COUNTRY OF RELEASE

Brazil



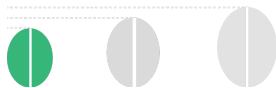
### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Small (screen size 14 or below)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Early
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Beverage quality score (Speciality Coffee Association) = 70 points. Flavor attributes: neutral. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and II, as this variety is from Group III.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 3193

Long primary branches. Production peak in the second or third commercial harvest due to its initial growth, which reduces the biannual production of the crop by compensating for lower yields of other clones.

### YIELD POTENTIAL

6000 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Small (screen size 14 or below)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Tolerant

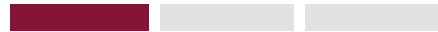


SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Early
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Recognized for having the longest length of productive branches among the genotypes studied, and for presenting with a high number of rosettes per branch. Beverage quality score (Specialty Coffee Association) = 75 points. Flavor attributes: chocolate, caramel, almond. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and II, as this variety is from Group III.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 3210

Good adaptability and stability in the environments of the Western Amazon.  
Good productivity and bean size.

### YIELD POTENTIAL

7200 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Susceptible



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to water stress, however, irrigation is recommended. Even in conditions of high water availability, its leaves demonstrate the behavior of plants under water stress. Presents high yield per hectare, 120 60-kg bags. Beverage quality score (Specialty Coffee Association) = 75 points. Attributes: Sweet aftertaste, soft. This cultivar is established in full sun with no shade. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and II, as this variety is from Group III.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 3213

Adaptable to the environments of the Western Amazon recognized for good productivity and bean size.

### YIELD POTENTIAL

7200 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Susceptible

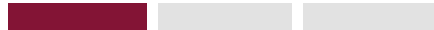


SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare when established in full sun with no shade. Resistant to water stress, however, irrigation is recommended. Even in conditions of high water availability, its leaves demonstrate the behavior of plants under water stress. Beverage quality score (Specialty Coffee Association) = 75 points. Flavor attributes: sweet aftertaste, soft. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and II, as this variety is from Group III.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)



## BRS 3220

Adaptable to the environments of the Western Amazon, recognized for good productivity and bean size.

### YIELD POTENTIAL

6600 kg/ha

### COUNTRY OF RELEASE

Brazil



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Susceptible



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	2000-3000 plants/ha (using multiple-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Presents high yield per hectare when established in full sun with no shade. Resistant to water stress, however, irrigation is recommended. Even in conditions of high water availability, its leaves demonstrate the behavior of plants under water stress. Beverage quality score (Specialty Coffee Association) = 75 points. Flavor attributes: sweet aftertaste, soft. Highest fruit set will occur when planted with other clones in gametophytic compatibility Groups I and II, as this variety is from Group III.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x Congo group
LINEAGE	Unknown parents. Natural cross between conilon and robusta plants. These were selected from farmers' fields.
BREEDER	Brazilian Agricultural Research Corporation (EMBRAPA)





## INIFAP 00-24

Compact plant grown under the conditions of the Chiapas coast in Mexico. Reduced plant size lends itself to higher yields in dry conditions and differentiates it from any other clone.

### YIELD POTENTIAL

**Unknown/Desconocido- kg/ha**

### COUNTRY OF RELEASE

**Mexico**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Low**



### BEAN SIZE

**Medium (screen size 15-16)**



### COFFEE LEAF RUST

**Tolerant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Susceptible**



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Susceptible**



SUSCEPTIBLE

RESISTANT

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	Unknown/Desconocido
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Has the tendency to produce more than three productive stems per plant with heavy fruit load. Combined with typical multiplication by rooted cuttings, it means the plant may need to be staked. However, this typically does not become a problem and rather facilitates the harvest. Usually cultivated at 700 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Guinea group
LINEAGE	Unknown
BREEDER	Nestlé Research/Instituto Nacional de Investigaciones Forestales Agrícolas y Pecuarias



## INIFAP 00-28

Tall plants with large and numerous leaves and fruits; highest-yielding clone for the conditions of the coast of Chiapas, Mexico.

### YIELD POTENTIAL

Unknown/Desconocido- kg/ha

### COUNTRY OF RELEASE

Mexico



### CONTENTS OF MUCILAGE IN THE CHERRY

Low



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Susceptible



SUSCEPTIBLE

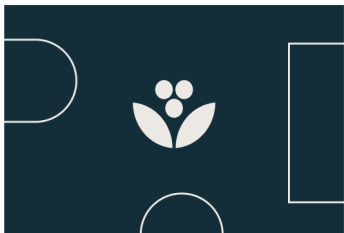
RESISTANT

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	Unknown/Desconocido
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	This clone does not produce many shoots and, normally, the plant is formed with 1 or 2 productive stems. Susceptible to stem and shoot hole borer and coffee berry disease (CBD). Typically cultivated at 700 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Unknown
BREEDER	Nestlé Research/Instituto Nacional de Investigaciones Forestales Agrícolas y Pecuarias (INIFAP)



## INIFAP 95-9

Tall plant with very large fruit. Susceptible to shoot hole borer.

### YIELD POTENTIAL

Unknown/Desconocido- kg/ha

### COUNTRY OF RELEASE

Mexico



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

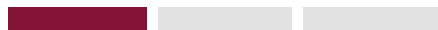
Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	Unknown/Desconocido
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	This clone is preferred by growers in the coastal region of Chiapas, Mexico. Farmers colloquially refer to it as 'improved robusta' due to its fruit size, which is reflected in good production per unit area. It is susceptible to coffee berry borer; no rust damage has been observed. The multiplication is via seed, which does not guarantee homogeneity of the resulting population. Mucilage detaches easily through pulping and fermentation. This clone is typically cultivated at 700 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Unknown
BREEDER	Mexican Coffee Institute (INMECAFE)/INIFAP



## INIFAP 97-14

Tall growth, tendency to form plants with more than three productive stems and good yield of cherries. Very susceptible to stem borers and anthracnose.

### YIELD POTENTIAL

Unknown/Desconocido- kg/ha

### COUNTRY OF RELEASE

Mexico



### CONTENTS OF MUCILAGE IN THE CHERRY

Low



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Susceptible



SUSCEPTIBLE

RESISTANT

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Very Late
CHERRY TO GREEN BEAN OUTTURN	Unknown/Desconocido
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Dark Bronze
ADDITIONAL AGRONOMIC INFORMATION	Alternates high and low production years. Susceptible to stem and shoot hole borer and leaf anthracnose. The weight of its production can overwhelm the stems. Typically cultivated at 700 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Unknown
BREEDER	Centre de Recherche Nestlé/INIFAP



## INIFAP 97-15

Tall growth, tendency to form plants with more than three productive stems.  
Good yield potential, wide range of adaptation to the climatic conditions of the coast of Chiapas and Veracruz, Mexico.

### YIELD POTENTIAL

**Unknown/Desconocido- kg/ha**

### COUNTRY OF RELEASE

**Mexico**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Low**



### BEAN SIZE

**Medium (screen size 15-16)**



### COFFEE LEAF RUST

**Unknown**

### COFFEE BERRY DISEASE

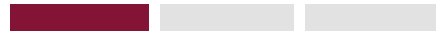
**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Susceptible**



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Susceptible**



SUSCEPTIBLE

RESISTANT

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	Unknown/Desconocido
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Dark Bronze
ADDITIONAL AGRONOMIC INFORMATION	Susceptible to coffee leaf rust, anthracnose, and coffee thread blight. However, it offers a good range of adaptation to different environments. Typically cultivated at 700 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Guinea group
LINEAGE	Unknown
BREEDER	Centre de Recherche Nestlé/INIFAP



# NARO-Kituza Robusta 1

Resistant to coffee wilt disease (CWD).

## YIELD POTENTIAL

2800 kg/ha

## COUNTRY OF RELEASE

Uganda



## CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

## BEAN SIZE

Medium (screen size 15-16)



## COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

## COFFEE BERRY DISEASE

Unknown

## NEMATODE

Unknown

## COFFEE BERRY BORER

Unknown

## SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

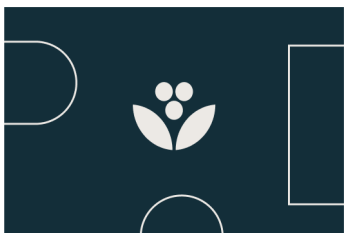
Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 81 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 10

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

4800 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

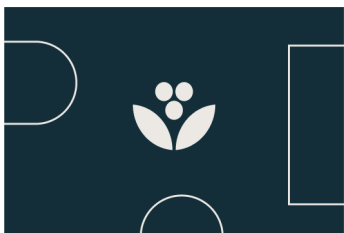
Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 80 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 2

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

2600 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 82 cupping score on the Specialty Coffee Association scale. Weight of green beans is 18-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)





## NARO-Kituza Robusta 3

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

4900 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 78 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 4

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

2300 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Early
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 81 cupping score on the Specialty Coffee Association scale. Weight of green beans is 16g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 5

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

2860 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 76 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 6

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

2650 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

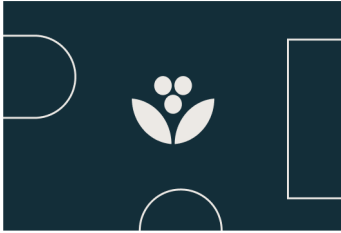
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## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 70 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 7

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

3000 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

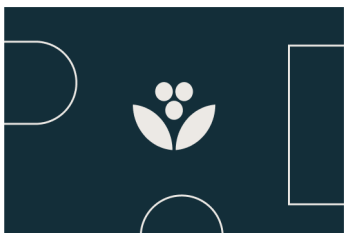
Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 76 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 8

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

3100 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Early
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 79 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## NARO-Kituza Robusta 9

Resistant to coffee wilt disease (CWD).

### YIELD POTENTIAL

3900 kg/ha

### COUNTRY OF RELEASE

Uganda



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to wilt and red blister disease. 79 cupping score on the Specialty Coffee Association scale. Weight of green beans is 19-22g per 100 green beans. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Uganda group
LINEAGE	Hybrid clone of natural cross-pollination
BREEDER	National Coffee Research Institute of Uganda (NACORI)



## Perdenia

Vigorous, wide-spreading, grow into moderately large trees. High-yielding, beans relatively small in size.

### YIELD POTENTIAL

1500-3000 kg/ha

### COUNTRY OF RELEASE

India



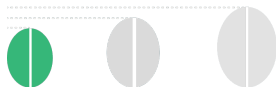
### CONTENTS OF MUCILAGE IN THE CHERRY

Low



### BEAN SIZE

Small (screen size 14 or below)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Susceptible



SUSCEPTIBLE

RESISTANT

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 4
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	25%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green or Bronze
ADDITIONAL AGRONOMIC INFORMATION	It can be grown at altitudes of 500 to 1000 meters above sea level. The bushes are spread out with 50–70 fruits per node in normal clusters, red in color with average cup quality. The fruit is relatively small in size. Yield of up to 1500 kg/ha under rainfed and shaded conditions and up to 2500 kg/ha under intensive cultivation practices including blossom and backing irrigation.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Unknown
BREEDER	Central Coffee Research Institute (CCRI), Coffee Board of India





# Roubi 1

Combines excellent yield and cup quality. Very high acceptance among farmers.

## YIELD POTENTIAL

**Medium-High kg/ha**

## COUNTRY OF RELEASE

**Mexico , The Philippines**



## CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

## BEAN SIZE

**Medium (screen size 15-16)**



## COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

## COFFEE BERRY DISEASE

**Unknown**

## NEMATODE

**Unknown**

## COFFEE BERRY BORER

**Unknown**

## SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 10

High productivity and high cup quality.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Nicaragua**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Medium (screen size 15-16)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 2

Combines excellent yield and cup quality. Very high acceptance among farmers.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Mexico , The Philippines**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Large (screen size >17)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 4

High productivity in combination with large bean size.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Thailand**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Large (screen size >17)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 5

High productivity in combination with large bean size.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Thailand**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Large (screen size >17)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 6

High productivity and high cup quality.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Nicaragua**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Medium (screen size 15-16)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 7

Very good cup quality and high productivity.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Nicaragua**

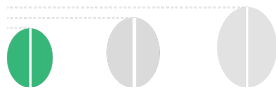


### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Small (screen size 14 or below)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## Roubi 8

High productivity and high cup quality.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Nicaragua**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Medium (screen size 15-16)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research





## Roubi 9

High productivity and high cup quality.

### YIELD POTENTIAL

**Medium-High kg/ha**

### COUNTRY OF RELEASE

**Nicaragua**



### CONTENTS OF MUCILAGE IN THE CHERRY

**Unknown**

### BEAN SIZE

**Small (screen size 14 or below)**



### COFFEE LEAF RUST

**Resistant**



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

**Unknown**

### NEMATODE

**Unknown**

### COFFEE BERRY BORER

**Unknown**

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

**Unknown**

## Agronomics

STATURE	Not applicable
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	18-21%
LEAF TIP COLOR	Not applicable
ADDITIONAL AGRONOMIC INFORMATION	Plant with other clones for fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Unknown
LINEAGE	Unknown
BREEDER	Nestlé Research



## SA 237

Suitable for cultivation under agroforestry systems in areas with dry climates.

### YIELD POTENTIAL

800-2100 kg/ha

### COUNTRY OF RELEASE

Indonesia



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Resistant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Tolerant

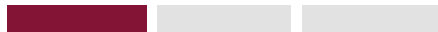


SUSCEPTIBLE

RESISTANT

### NEMATODE

Susceptible

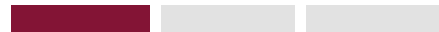


SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

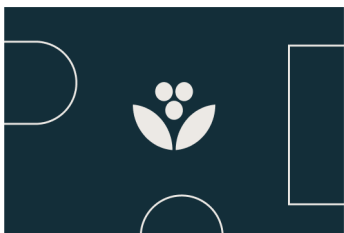
Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	Unknown
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	This clone is suitable for cultivation in dry climate areas and will perform best in the altitude range of 400–900 meters above sea level. This clone is susceptible to <i>Pratylenchus coffeae</i> . Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	The genetic composition of this clone is close to the 'R' group of robusta species.
BREEDER	Indonesian Coffee and Cocoa Research Institute (ICCRI)



## Sln.1R

Plants that are very vigorous and grow into moderately large trees.

### YIELD POTENTIAL

1500-3000 kg/ha

### COUNTRY OF RELEASE

India



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Tolerant



SUSCEPTIBLE

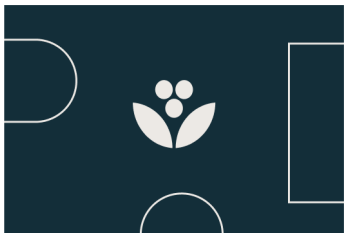
RESISTANT

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	Unknown
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	This variety is composed of two clones—S.270 and S.274—which are required to be planted together, because separate planting will reduce fruit sets. These two genotypes have recorded yields of nearly 1000 kg/ha on an average over 35 years of testing in rain-fed conditions. The planting density for this variety is 3m x 3m.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x <i>Coffea congensis</i> group
LINEAGE	<i>Coffea congensis</i> x <i>Coffea canephora</i> and recurrent back cross to Robusta. Selection from BC2.
BREEDER	Central Coffee Research Institute (CCRI), Coffee Board of India



## Sln.2R

Plants that are very vigorous and grow into moderately large trees and produce large beans.

### YIELD POTENTIAL

1500-3000 kg/ha

### COUNTRY OF RELEASE

India



### CONTENTS OF MUCILAGE IN THE CHERRY

Unknown

### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Unknown

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Unknown
YEAR OF FIRST PRODUCTION	Unknown
NUTRITION REQUIREMENT	Unknown
RIPENING OF FRUIT	Unknown
CHERRY TO GREEN BEAN OUTTURN	Unknown
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Unknown
ADDITIONAL AGRONOMIC INFORMATION	Many agronomic traits of Sln.2R, including yield potential, resemble Sln.1R. However, these clones have a higher stability for A-grade beans than the Sln.1R. This variety is composed of a mixture of three clones—BR 9, 10, and 11—which are required to be planted in mixtures, because separate planting will reduce fruit sets. Yield of up to 1,500 kg/ha in wet and shaded conditions and up to 2,500 kg/ha when managed carefully, including supplementary irrigation and flowering management.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x <i>Coffea congensis</i> group
LINEAGE	<i>Coffea congensis</i> x <i>Coffea canephora</i>
BREEDER	Central Coffee Research Institute (CCRI), Coffee Board of India



## Sln.3R

Compact plant stature with good yielding potential, suitable for high-density planting.

### YIELD POTENTIAL

1500-2500 kg/ha

### COUNTRY OF RELEASE

India



### CONTENTS OF MUCILAGE IN THE CHERRY

High



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY BORER

Susceptible



SUSCEPTIBLE

RESISTANT

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Susceptible



SUSCEPTIBLE

RESISTANT

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	20%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Relatively high water requirement for blossom and backing compared to other Robusta varieties. It is considered year-1 producing when using clones. If using seed, it will produce in year 2 and year 3, when cultivated under shade. Using irrigation can assist with early ripening. The planting density for this variety ranges from to 2.4m x 2.4m to 2.7m x 2.7m. Cultivated at altitudes of 500 to 1000 meters above sea level. Yield of up to 1500 kg/ha under rain-fed and shaded conditions and up to 2500 kg/ha under intensive cultivation practices including blossom & backing irrigation.

## Background

TYPE	Polyclonal
GENETIC DESCRIPTION	Guinea x <i>Coffea congensis</i> group
LINEAGE	<i>Coffea congensis</i> x <i>Coffea canephora</i> and recurrent back cross to Robusta. Selection from BC2.
BREEDER	Central Coffee Research Institute (CCRI), Coffee Board of India



## TR11

Very high yield and quality. Strong growth.

### YIELD POTENTIAL

5000-6000 kg/ha

### COUNTRY OF RELEASE

Vietnam



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Tall
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	24%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	Resistant to coffee leaf rust and high cup quality. The optimal altitude for production is around 500–800 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Selection of mother tree from open-pollinated population in cultivation, vegetative multiplication by grafting
BREEDER	Western Highlands Agroforestry Science Institute (WASI)



## TR4

High yield and wide adaptation to different environments.

### YIELD POTENTIAL

5000-7000 kg/ha

### COUNTRY OF RELEASE

Vietnam



### CONTENTS OF MUCILAGE IN THE CHERRY

Low



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	24%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Green
ADDITIONAL AGRONOMIC INFORMATION	High and stable yield and quality. Strong secondary branching. The optimal altitude for production is around 500–800 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Selection of mother tree from open-pollinated population in cultivation, vegetative multiplication by grafting
BREEDER	Western Highlands Agroforestry Science Institute (WASI)



## TR9

Very high yield and cup quality, large bean size.

### YIELD POTENTIAL

5000-6000 kg/ha

### COUNTRY OF RELEASE

Vietnam



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	23%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Dark Bronze
ADDITIONAL AGRONOMIC INFORMATION	Resistant to coffee leaf rust and high cup quality. The optimal altitude for production is around 500–800 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Selection of mother tree from open-pollinated population in cultivation, vegetative multiplication by grafting
BREEDER	Western Highlands Agroforestry Science Institute (WASI)





## TRS1

Wide adaptation to different environments; average input requirements.

### YIELD POTENTIAL

4000-5000 kg/ha

### COUNTRY OF RELEASE

Vietnam



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Medium (screen size 15-16)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 3
NUTRITION REQUIREMENT	Medium
RIPENING OF FRUIT	Average
CHERRY TO GREEN BEAN OUTTURN	22%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
ADDITIONAL AGRONOMIC INFORMATION	Because this plant is a polyclonal/synthetic variety (i.e., is composed of a combination of multiple unique types), plants will exhibit growth differences. Easy multiplication by seed. Good adaptation. Variety most commonly used by farmers. Optimal altitude for production is around 400–900 meters above sea level.

## Background

TYPE	Pyclonal
GENETIC DESCRIPTION	Congo group
LINEAGE	Parent clones: TR4, TR9, TR11, TR12
BREEDER	Western Highlands Agroforestry Science Institute (WASI)



## Xanh lun

Compact, very high yield. High-quality, relative drought tolerance, late to ripen.

### YIELD POTENTIAL

5000-6000 kg/ha

### COUNTRY OF RELEASE

Vietnam



### CONTENTS OF MUCILAGE IN THE CHERRY

Average



### BEAN SIZE

Large (screen size >17)



### COFFEE LEAF RUST

Tolerant



SUSCEPTIBLE

RESISTANT

### COFFEE BERRY DISEASE

Unknown

### NEMATODE

Unknown

### COFFEE BERRY BORER

Unknown

### SHOOT HOLE BORER (*XYLOSANDUS COMPACTUS*)

Unknown

## Agronomics

STATURE	Dwarf/Compact
YEAR OF FIRST PRODUCTION	Year 2
NUTRITION REQUIREMENT	High
RIPENING OF FRUIT	Late
CHERRY TO GREEN BEAN OUTTURN	23%
PLANTING DENSITY	1000-2000 plants/ha (using single-stem pruning)
LEAF TIP COLOR	Light Bronze
ADDITIONAL AGRONOMIC INFORMATION	Relatively drought tolerant. Presents low secondary branching in some regions. The optimal altitude for production is around 500-800 meters above sea level. Must be planted together with other clones to enable fruit set.

## Background

TYPE	Clone
GENETIC DESCRIPTION	Congo group
LINEAGE	Selection of mother tree from open-pollinated population in cultivation, vegetative multiplication by grafting
BREEDER	Farmer selected, approved by Western Highlands Agroforestry Science Institute (WASI)

## CONTACT

info@worldcoffeeresearch.org  
+1-503-218-3824

### **Mailing Address:**

10940 SW Barnes Road #334  
Portland OR 97225

### **Research Farm Flor Amarilla:**

Beneficio Las Tres Puertas  
Calle a Ciudad de Los Niños  
Santa Ana, El Salvador

