Perelman's Pocket Cyclopedia of Havana Cigars: 3rd edition

FROM FARM TO FACTORY

§ 2.01-2.04: ON THE FARM

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2.01 AT THE BEGINNING

Like any agricultural product, the story of Cuba's fabled tobacco starts with the soil.

Cuba's tobacco-growing regions are spread from west to east, with the prized Vuelta Abajo fields in the far western section of the island in the Pinar del Rio province. Also important is the Partidos region of the Havana province, just southwest of the capital city of Havana; these two regions grow almost all of the tobacco used in Havana cigars prepared for export. Tobacco which is generally of less quality results from the Vuelta Arriba: fields in the Las Villas area in the center of the island and from Oriente, located at the far eastern edge of Cuba.

In the Vuelta Abajo and Partidos areas, nature's natural humidor provides an average temperature of 25 degrees Celsius (77◦ F) and average relative humidity of about 79 percent, in addition to 1.5 meters (nearly five feet) of annual rainfall.

Tobacco crops are planted, depending on the weather, anywhere from late September to early November, in the sandy or lathosolisized soils of the region. These areas are excellent for tobacco because of their light density, a characteristic that allows easy plowing, excellent penetration of water and enough room within the soil to allow young tobacco plants to grow deep roots easily. Vuelta Abajo and Partidos region soils also require only a modest amount of water for proper irrigation.

The planting program also takes advantage of the nature of tobacco, a voracious consumer of minerals and nutrients. Knowing this, the men and women who tend the fields – the *vegueros* – plant the seeds in ground which has only part of the "food" that a tobacco plant needs, forcing it to reach for another source of energy, namely the sun through the process of photosynthesis. Planting tobacco in fabulously rich soil would result in a happy plant which sprouts glorious, thick leaves that would be useless in cigars. Instead, the tobacco is conditioned to sprout more leaves to gather more of the sun's energy, yielding thinner and larger leaves which are perfect for cigars.

This process requires considerable attention to the plants, which are visited almost daily during their 90-day lives. The basic variety of Vuelta Abajo or Partidos tobacco used for binders and filler is the Creole (in Spanish, *Criollo*) type. Developed in 1940 as a disease-resistant strain of Cuba's native "black tobacco" plant, Criollo usually produces 16 usable leaves. It is planted in special seedbeds which are rotated in five-year cycles. These beds are normally 18-20 meters (60-65 feet) long and a meter (3 feet) wide; the beds are usually situated about 40 cm (1.5 feet) apart. To shield the plants from direct sunlight, the beds are covered with dry grass or cheesecloth erected on poles.

Wrapper leaf is obtained from the *Corojo* variety of tobacco, planted using the same procedures. This plant was also developed in the 1940s and is usually grown under shade, usually cheesecloth. A normal yield from Corojo is 16-18 leaves; in a typical harvest, about 20 percent of the leaves will be used for cigar wrappers.

After 6-8 days, germination occurs and within the 35-45 day period, the young plants are ready for relocation. The healthiest plants are gathered in groups of 100; typically, the best specimens are 19-21 cm (about 8 inches) long and 4-5 mm (0.2 inches) thick.

On the plantation (in Spanish, *vega*), the transplanted Criollo plants are placed about every 35-40 cm (12-15 inches) in open sunlight; the Corojo plants are covered by cheesecloth. The transplant effort to a standard-sized field of 8.38 hectares (20.71 acres) usually requires ten days and is completed in November or December.

About 18-20 days after planting comes a light plowing of the soil followed by water and fertilizer. From 25-28 days after planting, the first buds appear and what will be the bottom of the tobacco plant. These are removed manually to help spur further growth.

When 30 days have passed since planting, the top of the plant is cut, which has the effect of stopping its vertical growth and encouraging growth of the leaves. Now the final stage is at hand, during which the tobacco plant reaches maturity between 45-85 days of age.

Unfortunately, tobacco also has many natural enemies which must be fought before a successful harvest can occur. The best known of these are *Black Shank* disease, *Blue Mold* disease, *Tobacco Mosaic Virus* and *Broomrape* plant. Various measures have been adopted to try and control — or stop — these problems, but none have been completely successful. Black Shank destroyed many plantations in the 1989-90 season and Blue Mold first appeared in 1957 and again in 1979, decimating the national harvest.

To combat these enemies, development has continued of new, disease-resistant tobacco plants. In 1988, a new type called *"Habana P.R."* was introduced with good resistance to Blue Mold, Black Shank and Tobacco Mosaic Virus. It offered good yield and high quality leaves for filler and binder use.

In 1992, the new strains *"Habana-92"* and *"Habana-2000"* were introduced, offering excellent resistance to disease and very good yields. Best of all, about 25 percent of the harvest of each type was good enough to be used for wrappers, offering an alternative to the Corojo plant which is more easily overcome by disease. Today, the Habana-2000 plant is in wide use as a primary producer of wrapper leaf, although Habana-92 and Corojo are also planted.

A third new strain — *Habana Vuelta Arriba* — is also widely planted in the central and eastern parts of Cuba. Also resistant to disease and yielding very large harvests, the quality of this leaf is such that it is primarily destined for cigarettes and domestically-consumed cigars.

In 2000, the Tobacco Experimental Station in Cabaiguan developed *Sancti-Spiritus '96*, a hybrid even more resistant to disease and experiments continue in four Tobacco Experimental Stations in Cuba to provide seeds that will produce dependable, disease-free harvests.

2.02 THE HARVEST

As the vegueros watch the maturing plants pass 45 days of age, the harvesting process begins. The tobacco plant is skillfully pruned, leaf-by-leaf, in a centuries-old process which ends with the delivery of picked leaves to the sorting barns.

A typical Criollo tobacco plant has, at maturity, seven layers of leaves, which are harvested from the bottom (*Libre de Pie*) to the top (*Corona*):

Level	***No. of leaves***	***Time of harvest***
▸ Libre de Pie	3	45-48 days
▸ Uno y Medio	3	52 days
▸ 1st Centro Ligero	3	55 days
▸ 2nd Centro Ligero	2	61 days
▸ Centro Fino	2	65 days
▸ Centro Gordo	2	75 days
▸ Corona	2	80-85 days

The shade-grown Corojo leaf classification is simpler, with the Libre de Pie leaves used for light-bodied filler, the center leaves used for wrappers and the heavier-bodied Corona leaves used for very dark wrappers or fillers.

After harvesting, the plant is removed from the soil and the ground lies fallow until the next planting season, happy to be rid of the insatiable plant to which it has been host.

This enormous effort produces a lot of leaf: the 2003-04 harvest from the Pinar del Rio region was reported at 22,000 tons!

2.03 CURING

Now the leaves are rushed to the curing barns on each farm. These structures are situated on an East-West axis to shield them from the spring sun; inside, the leaves are individually strung on cotton thread and hung across the horizontal beams to cure. There were about 14,500 of these barns in Cuba when Hurricanes Isidore and Lili wiped out about 10,000 of them on September 24 and October 2, respectively, of 2002. Most have been rebuilt with significant attention to the maintenance of consistent temperature and humidity, upgrading the dependability of the curing process.

During this *curing period* of 30-60 days (less for shade-grown leaf, more for sun-grown), the leaves dry and lose from 11-19% of their weight. They turn from green to lemon-yellow in color and finally to brown, as the chemistry of the plant oxidizes.

2.04 FROM BROWN TO BEAUTIFUL

Once the curing process has been completed, leaves are transferred to the sorting houses (*Escogidas*).

Each Escogida receives leaves from a contiguous group of farms which are judged to produce the same quality of leaf (since the ground is considered to be the same on all of the farms which

ship to that sorting house) and the bales shipped to the factories are referred to by the name and number of the specific sorting house, rather than by reference to a specific farm. In the Escogida, each bunch of leaves is grouped and then graded strictly according to its level of cut from the plant. That requires a lot of Escogidas and there were 184 of them in the Pinar del Rio province alone in the late 1990s. Once there, leaves are fermented depending on type:

- Shade-grown leaves destined for wrappers are fermented in barrels or in rectangular piles for 30-60 days, depending on the desired speed of the process and final shade of the wrapper.

- Sun-grown leaves to be used for binder and filler are also fermented in bulks for 25-30 days, sorted, and then a *second fermentation* begins, usually with the leaves packed in barrels or in rectangular piles for between 30-60 days.

Depending on the desired speed of the process, temperature is maintained between 10 and 37 degrees C (50-99◦ F); a higher temperature accelerates the process and produces darker leaves. Humidity is optimized at 75%, but is never allowed to drop below 14%. With humidity of less than 65%, the leaves dry out and fermentation is slowed.

The fermentation itself changes quality of the leaf, transform-ing the proteins into impotent components which will not produce distasteful odors and reducing the level of chlorine and nicotine in the plant. Through the process, the leaves are pro-perly conditioned for aroma (through the ripening of essential oils and ethereal salts by oxidization) and combustibility (directly related to the amount of potash carbonate).

The final step before the leaves are packed into bales covered by palm leaves (*yagua*) is the classification by (1) size and (2) texture into *volado, seco, medio tiempo* and *ligero.* The texture of sun-grown leaves usually, but not always, corresponds with the level of the leaf on the plant:

- Volado, meaning “filler:” normally the three or four lowest leaves of the plant. These are thinner leaves and the most combustible, but with the least amount of flavor.

- Seco, meaning “dry:” usually from the center. These leaves have more flavor and are prized for aroma.

- Ligero, meaning “light:” from just below the top of the plant. These leaves have the most flavor and provide strength in the blend.

- Medio Tiempo, meaning “mid-term:” from the very top of the plant.

The shade-grown wrapper tobacco is sorted into six groups by color and texture: *ligero* (light), *seco* (dry), *viso* (glossy), *amarillo* (yellow), *medio tempio* (mid-term) and *quebrado* (broken), and then further classified by size. Wrapper leaves which are imperfect are used for binders.

After all of this, the leaves are packed and shipped to warehouses for aging for anywhere between a few months and a few years. Once determined to be ready for production, leaves are sent to the factory.