

PortaCafe™ Coffee Quality Management System
 Cafes Sustentables de Mexico, S.A. de C.V



Coffee quality management begins in the coffee orchards and ends in the preparation of a cup of coffee to be consumed. Each person in the production chain must do their part. If those at the source fail there is nothing more the others up the chain can do to recover. On the other end of the chain, the consumer through lack of education or adequate brewing equipment, can fail in his kitchen and produce a mediocre brew from a spectacular Estate coffee; materially reducing the likelihood that he will again opt to buy the higher priced Estate coffee.

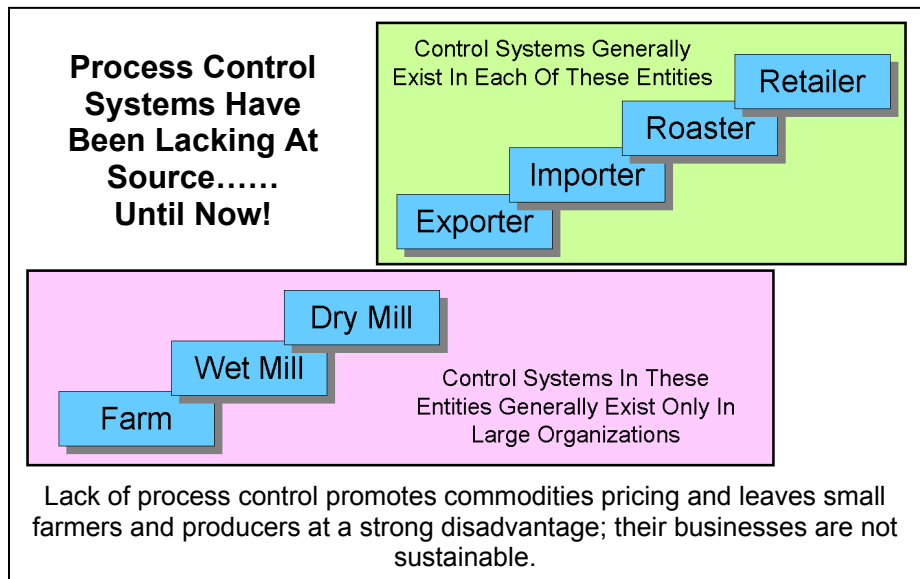
We all need to be cognizant of coffee quality management and the higher prices that producers can earn with a quality product. It can't be avoided; we all play a part in making coffee sustainable for thousands of small farmers.

As a commodity, coffee is second only to petroleum, and like petroleum, nearly all of the world's coffee is sold in a world-wide auction system that favors availability over all else. Coffee producers need ways to differentiate their product so that they have the opportunity to stabilize prices by selling as much as possible outside of the commodities market. Since product differentiation is best and most sustainably achieved through quality, it is critical that coffee producers gain control of process to best maintain quality and consistency.

Perhaps the most basic aspect of quality management is control of process, whether it be in the producing country or in the consuming country. Each step that is taken to produce a product must be documented an repeatable. Lack of repeatability leads to lack of consistency which leads directly and ineluctably to commodities pricing; a buyer or roaster

needing a consistent product for his customers is encouraged to shop around if he finds a different product each time he returns to buy again from a particular coffee producer.

Although not currently treated as such, coffee is a manufactured product; there are many steps in its production, some critical, that must be faithfully repeated to consistently produce a superior product; that great cup of Estate coffee on your breakfast table.



The PortaCafe™ system is a fundamental component of a complete coffee quality management system for use in a producing country. It provides the user with the tools to document the results of the formal evaluation of samples, and to use these results to provide critical quality feedback information to the growers and the wet mill operators; this gives the growers and the producers the information they need to make the adjustments necessary to control and improve process. The PortaCafe™ software also allows the dry mill operator or the exporter to use the recorded data to design blends and issue dry mill work orders that maximize the value of the coffee used to meet contract specifications.

Numero de CSM:	13	Comunidad:	?	Calidad de Cerezas:	2	Rendimiento Total, %:	82.0
Fecha llegada:	6-Feb	Apellido Productor:		Beneficio Humedo:	Xalisco	Rendimiento, Criba 17 y Arriba, %:	56.0
Tipo de Café (L, ND, C):	L	Nombre Productor:					
Numero del lote:	8	Predio:					
Peso del lote, kg:	1025	Método secado (P,S,C):	P	Aspecto			
Cantidad, sacos:	35	Muestra tomada por:	G Barrios	Fecha evaluado:	07-Feb	Scaled to 350 gm sample	Puntuacion SCAA cruda: 9.2
Fecha del lote:	19-Jan	Humedad en pergamino:	5.8	Evaluado por:	Filemon	Criba 17 y arriba	Puntuacion SCAA esperada: 7.0
El peso evaluado:	350	Humedad en oro:	11.6	La Taza			
(350 g L, 400 g ND, 600 g C)				Fecha evaluado:	12-Feb		
Aspecto del oro, 1 - 5:	4	Aspecto Tostado, 1 - 5:	4	Evaluado por:	JGK		

La Tasa:		Sabor:	8.5	Acidez:	8.8	Balance:	8.7	Puntuacion de la Taza:	89.5
Fragrancia/Aroma:	7.5	Cualidades:	Dulce, miel, citrico	Cualidades:	citrico	Uniformidad - tazas:	5	Puntaje Catador:	9
Seco:	7	Sabor remanente:	9	Cuerpo:	8	Taza limpia:	5	Defectos:	0 (Sustraer)
Cualidades:	Flor	Cualidades:	Miel, chocolate	Cualidades:	Denso	Dulzor:	5	# tazas:	0
Espuma:	8	Intensidad:	7	Intensidad:	7	Intensidad:		(2 = ligero, 4 = rechazo)	
Cualidades:	Flor								

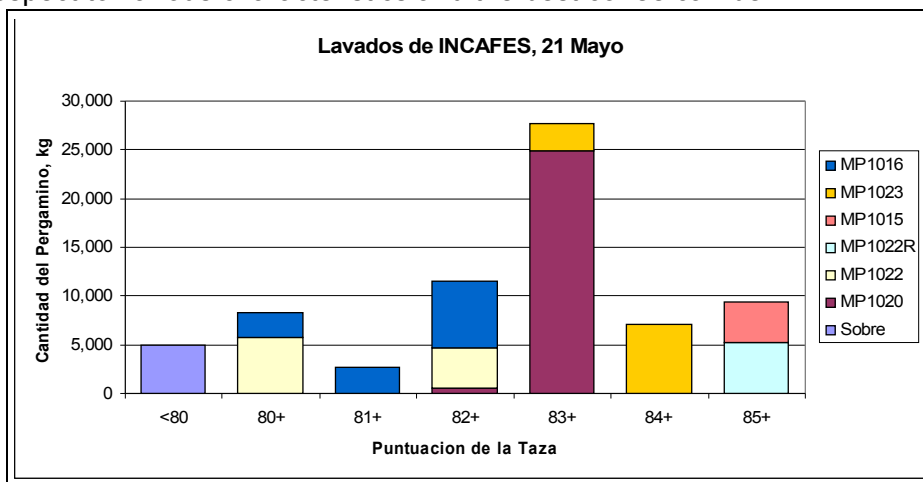
Criba	Peso gm	%	Defectos, gm	Defectos, %	Broca Severa	Broca	Negro	Negro Parcial	Agrio	Agrio parcial	Aplastado	Dano y Agrio parcial	Blanco	Elefante	Concha	Malformado	Dano de hongos	Inmaduro	Sobresecado	Puntuacion esperado
19	47	16.4	1.54	3.3	1	4					2			1	1					0.90
18	76	26.5	2.62	3.4	3	7					3		1		1					1.70
17	73	25.4	1.58	2.2	2	5			1	1	1									1.33
16	37	12.9	0.00	0.0																0.00
15	31	10.8	0.0	0.0																0.00
F	23	8.0	0.0	0.0																0.00
Totals:	287	100.0			10.7	28.6	0.0	0.0	1.8	0.0	10.7	1.8	1.8	1.8	3.6	0.0	0.0	0.0	0.0	9.167

Tamaño de la Criba	Porcentaje	Defectos (%)
19	16.4	3.3
18	26.5	3.4
17	25.4	2.2
16	12.9	0.0
15	10.8	0.0
F	8.0	0.0

Defecto	Cuenta
Broca Severa	10.0
Sobresecado	2.0
Broca	2.0
Negro	2.1
Negro parcial	0.0
Agrio	0.4
Agrio parcial	0.4
Blanco	0.0
Elefante	0.0
Concha	0.7
Malformado	0.0
Dano de hongos	0.0
Inmaduro	0.0
Sobresecado	0.0
Dano	0.0
Aplastado	0.0
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selected for blending by grouping desired characteristics. The blends then become the bases of work orders to be presented to the operator of the dry mill.

When there are several contracts with differing specifications or with different prices, the coffee can be blended with respect to various characteristics and the best coffee can be reserved and blended for the buyer who has paid the higher price. The bar graph shows an example of how 81 Patio lots containing a little over 67 tons of pergamino from various communities were selected to fulfill six contracts having a total of 565 bags of green coffee. This example shows how two containers were filled with six “micro-lots” of green coffee per contract specifications.



When the PortaCafe™ is placed in a clean, well ventilated and modestly lit room, it takes only a few minutes to open the case and connect the included extension cord to a 20A electrical outlet to implement a complete and very professional coffee evaluation laboratory.

The PortaCafe™ system is an advanced Coffee quality management system that provides the small producer the tools to compete with the “big guys”. It is well suited as a base for qualifying coffee, training and calibrating cuppers, and launching advanced cuppers to Q-Grader certification.

The PortaCafe™ laboratory’s case cum cupping table, the included tools, and the software are a fraction of the cost of a fixed, purpose built laboratory and can be used in the field to further leverage the savings.

The PortaCafe™ system consists of four major components:

1. **A carrying case (and cupping table)** that contains all the tools necessary to formally evaluate dried coffee in any form to SCAA/CQI standards, from the trier to remove samples from bags, to the spoons used for cupping. The case is equipped with it's own electrical distribution system with a 20A master breaker, and includes an overhead fluorescent fixture to assure sufficient light for grading coffee



2. **A precision coffee sample roaster** that requires very little training to roast coffee repeatedly and consistently with a fixed temperature profile. It has a bean temperature probe and an audible alarm controlled with an



operator settable exit temperature; the two stage audible alarm alerts the operator when the roasted coffee is ready to pour out of the roasting chamber. A manual temperature control with fixed temperature set-points provides for repeatable “profile roasting” by an advanced operator.

3. **Database software** that allows the user to manage samples of coffee by documenting:
 - a. their source (grower, parcel, community, affiliation, wet mill, date dried, lot size, etc.) and
 - b. the results of a formal evaluation (moisture content, bean size distribution, grading data – defects by aspect), cupping data – flavor characteristics, etc.) using SCAA standards.

The software helps the user to use the captured data to design blends of the lots represented by the samples on the basis of their documented characteristics. The software allows the operator to print all necessary paper forms, print coffee quality reports for the producers, and to issue printed work orders for processing in the dry mill



4. Operations and Training Manual in video format.



The operations manual video contains an overview which provides the background for using the system. It has a section outlining the contents of the PortaCafe™ and a section with safety information. The body of the video takes the viewer/user through each step of coffee evaluation, from the taking of a representative sample, through preparation of the sample for grading and cupping, while emphasizing the accumulation of normalized data for subsequent analysis.