FincaLab®

A Portable Coffee Process Control and Quality Assurance System

The FincaLab® is a complete portable process control system for small to medium sized coffee producers. It provides the user with all the tools and software necessary to document and manage coffee production and quality from the reception of fruit to sales and export of green coffee in bags with internet traceable bar codes and serial numbers. The same tools are also useful to coffee roasters for managing their green purchases and maintaining blend consistency.

The FincaLab® consists of a full capability formal laboratory in a portable carrying case along with software to document all processes. The portable laboratory contains all the tools necessary to sample and formally evaluate and document the quality of dried coffee in any form, parchment, dried fruit, or green, to SCAA/Q® standards.

The FincaLab's® laboratory tools include a sample huller, a moisture meter, coffee sizing screens, a TDS meter and kit of solutions for adjustment of cupping water TDS; it also has a precision sample roaster and cooler, a conical burr grinder, and all the cups, spoons, timers, etc. needed to asses brewed coffee to SCAA / Q® standards. It is a full-up portable laboratory better than most existing fixed installations.

The laboratory's professional tools and it's software allow the user to:

1. Manage distribution of harvest funding and quality premiums.
2. Control reception of fruit and document its origin, including printing of instructions for reception and receipts for growers.
3. Print process reports for the user and the operators of all wet mills and dry mills.
4. Control inventory from reception of coffee in any form through all processes including in-country and export sales.
5. Print reports and document the results of formal evaluation of all samples.
6. Create blends of coffees with specified certifications or characteristics such as from women producers, individual communities, ranges of altitude or cultivars.
7. Maintain consistency in all quality levels.
8. Issue dry mill work orders to process all blends to meet contract specifications.
9. Print tickets and labels as well as capture data to manage transport of coffee between reception points, wet mills and dry mills.
10. Manage traceability from the standpoint of assuring that each producer is transparently paid in proportion to the amount of his or his organization's coffee that is in each blend.
11. Print barcode labels to be sewn into all bags sold.
12. Issue and print coffee quality certificates.
13. Upload quality, geographic, and social data to www.trackyourcoffee.com

The FincaLab® portable laboratory can be used anywhere there is a covered area with a flat floor and access to electrical power and bottled water. The laboratory consists of a carrying case that opens to form a 1 m high lighted cupping table that is 1m wide by 2.5 m long and is provided with an electrical power distribution system that includes four multi-contact power strips mounted on the underside of the opened table. The laboratory can be used alone as a fixed coffee evaluation laboratory with SCAA/Q® certifiable tools; it can be carried directly to individual farms to evaluate patio lots in situ; or it can be used in a classroom setting for training groups of students in SCAA/Q® methodology and coffee evaluation procedures.
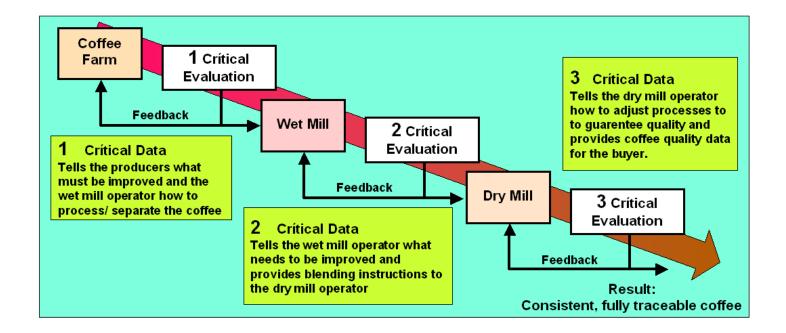
History Of The FincaLab® System

The FincaLab® was developed over a span of 10 years working with Mexican coffee farm smallholders and their organizations. We began by focusing on the development of tools to identify the best coffees from each of the groups with whom we were working, blend these coffees to maximize value for the producers, and provide vital feedback on quality and production to the producers as soon as possible.

The tools and processes we developed to identify the best coffees assured a product that could be sold for a premium, and the process controls provided the traceability that allowed us to market the best coffee under the name of the community that produced it, giving credit where credit was due.

We quickly found however that identifying the worst coffees was as much of a priority as identifying the best as it quickly became apparent that maintaining and improving quality relied just as much on identifying and not repeating past mistakes.

The FincaLab® system is based on process controls that are in turn based on a sequence of critical evaluations of the coffee and accurate documentation of the results in a data-base that facilitates the application of both feedback and feed-forward to improve process; the feedback helps to improve process and not repeat mistakes, and the feed-forward helps guide subsequent processes using the characteristics of the product entering the process.

Summary:

The FincaLab® is a transparent link between the producer and the buyer that simultaneously provides immediate feedback to growers for quality management and improvement.

The system allows the user to document and track coffee from individual sources through wet mill processes and work-orders for dry mill processing of defined blends of coffees having specific characteristics or certifications. It accommodates any form of dried coffee: parchment, dried cherries, or green. It provides the tools to document all processes and provides an analysis function which allows the user to group lots of coffee according to selected characteristics such as cup quality (for example acidity or aftertaste) or by defect type (for example insect damage or sour beans) to best define blends that optimize dry mill processing such as setting the sequence of dry mill processes that maximize dry mill efficiency.